

# Economic and Fiscal Impacts of The Lake Campus of Wright State University

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## INTRODUCTION

The Lake Campus of Wright State University (Lake Campus) is a public, four-year university located in Celina, Ohio that enrolled 1,812 students and directly employed 283 full- and part-time workers during the 2015-2016 academic year. Lake Campus benefits Mercer County in a number of ways, principally by increasing the training and knowledge base of the area, but also through the expenditures of the University, its employees, and its students.

This report displays the economic impact of Lake Campus on Mercer County, Ohio, which primarily benefits from the University. Further, this report quantifies the fiscal benefits the University provides to local, state, and federal governments. All told, Lake Campus increased economic output in Mercer County by approximately \$39.9 million in fiscal year 2016<sup>1</sup> and led to nearly \$3.6 million in total tax revenues, of which more than \$468,000 accrued to local municipal and county governments.

Lake Campus benefits the local economy in three ways: through its operations, student spending, and capital expenditures. The direct spending for the University's operations affects the local economy as the school and its employees purchase local goods and services. In turn, those local businesses and associated employees increase spending and buy local goods and services themselves, which are specified as indirect impacts.

The total economic impact from Lake Campus' operations falls into two categories. The first category is the net economic impact of new money from outside of Mercer County that is spent within the local economy because of Lake Campus. The second economic impact category is the retained economic impact, which results from spending of local students that may have moved elsewhere for postsecondary education if it were not for Lake Campus. These impacts are shown below.

## OPERATIONS

During fiscal year 2016, Wright State's Lake Campus spent \$11.0 million on operations. Of this, approximately \$8.0 million is attributable directly to the new money coming into Mercer County due to Lake Campus' presence and \$3.0 million is considered retained and is discussed below. This direct spending by the University from outside money generated a further \$2.2 million in additional economic activity in Mercer County, as is shown in Table 1. Overall, outside money coming to the region as a result of Wright State's Lake Campus increased economic activity in the area by approximately \$10.2 million. The University's ability to attract students and funding from outside of Mercer County led to 206 full- and part-time jobs at the University. These direct jobs further supported another 35 jobs for a total net impact of 241 jobs in the region. Direct employees of the University earned approximately \$3.8 million in total wages and indirect employees earned more than \$663,000.

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<sup>1</sup> Wright State University's fiscal year begins July 1 and ends on June 30 of each year.

**Table 1: New Money Economic Impact from Operations, FY 2016**

Impact Type	Output	Earnings	Employment
Direct	\$7,988,739	\$3,761,100	206
Indirect	\$2,178,530	\$663,459	35
<b>Total</b>	<b>\$10,167,269</b>	<b>\$4,424,559</b>	<b>241</b>

Source: Economics Center calculations using data provided by Wright State University, Emsi, and RIMS II multipliers. All monetary values are in 2016 dollars.

As shown in Table 2, retaining students from Mercer County who may have gone elsewhere for postsecondary education caused direct expenditures from the University of approximately \$3.0 million. As a result, total economic activity attributed to retained students in Mercer County totaled approximately \$3.8 million. The expenditures made by Wright State University's Lake Campus that resulted from retained students supported 77 full- and part-time jobs at the University and indirectly supported another 13 jobs in the region with more than \$1.6 million in total earnings.

**Table 2: Retained Economic Impact from Operations, FY 2016**

Impact Type	Output	Earnings	Employment
Direct	\$2,973,861	\$1,400,094	77
Indirect	\$810,972	\$246,977	13
<b>Total</b>	<b>\$3,784,833</b>	<b>\$1,647,071</b>	<b>90</b>

Source: Economics Center calculations using data provided by Wright State University, Emsi, and RIMS II multipliers. All monetary values are in 2016 dollars.

## STUDENT SPENDING

Student spending results from the purchase of goods and services while attending school. Estimated purchases of non-local students who have moved to the area to attend Wright State's Lake Campus are shown separately from the purchases of local students who may otherwise have left the area to attend another college or university. In the fiscal year 2016, non-local students brought approximately \$14.2 million in new money to Mercer County because of the University and are estimated to have increased total economic output in the area by more than \$17.4 million, as shown in Table 3. Further, 144 full- and part-time jobs were supported in local businesses due to non-local student spending. These 144 direct jobs, in turn, supported another 23 jobs in the area. Individuals directly employed because of non-local student spending, earned approximately \$23,230, on average, while indirect employees earned average annual wages of \$37,444.

**Table 3: Economic Impact of Non-local Student Spending, FY 2016**

Impact Type	Output	Earnings	Employment
Direct	\$14,180,762	\$3,345,114	144
Indirect	\$3,234,298	\$861,217	23
<b>Total</b>	<b>\$17,415,060</b>	<b>\$4,206,331</b>	<b>167</b>

Source: Economics Center calculations using data provided by Wright State University, Emsi, and RIMS II multipliers. All monetary values are in 2016 dollars.

Students originating from Mercer County spent an estimated \$6.2 million in the County, which led to further expenditures of \$1.4 million for a total impact of approximately \$7.6 million, as shown in Table 4. This spending supported an estimated 63 jobs in local businesses and indirectly supported 10 full- and part-time jobs in Mercer County. Direct employees supported by local student spending earned an average annual wage of \$23,233 while indirect employees earned \$37,675, on average. Overall, \$1.8 million in wages were paid as a result of local student spending.

**Table 4: Economic Impact of Local Student Spending, FY 2016**

Impact Type	Output	Earnings	Employment
<b>Direct</b>	\$6,202,592	\$1,463,698	63
<b>Indirect</b>	\$1,414,895	\$376,753	10
<b>Total</b>	<b>\$7,617,487</b>	<b>\$1,840,451</b>	<b>73</b>

Source: Economics Center calculations using data provided by Wright State University, Emsi, and RIMS II multipliers. All monetary values are in 2016 dollars.

## CAPITAL EXPENDITURES

During fiscal year 2016, Lake Campus made capital expenditures<sup>2</sup> to fulfill its mission, all of which are typically specific investments and outside of normal University operations expenditures. The economic impact of those local capital purchases is shown in Table 5. Wright State's Lake Campus made more than \$1.2 million in capital expenditures in the fiscal year 2016, of which \$658,000 remained in Mercer County economy, as many of the goods and services necessary for the capital purchases existed outside of the regional economy. This spending led to further local sales of nearly \$208,000, for a total impact on Mercer County economy of approximately \$866,000.

**Table 5: Economic Impact of Capital Expenditures, FY 2016**

Impact Type	Output	Earnings	Employment
<b>Direct</b>	\$657,588	\$231,664	4
<b>Indirect</b>	\$208,270	\$52,850	2
<b>Total</b>	<b>\$865,858</b>	<b>\$284,514</b>	<b>6</b>

Source: Economics Center calculations using data provided by Wright State University, Emsi, and RIMS II multipliers. All monetary values are in 2016 dollars.

## TOTAL ECONOMIC IMPACT

The total economic impact of the Lake Campus of Wright State University on Mercer County was approximately \$39.9 million in fiscal year 2016, as shown in Table 6. This includes the impact of operations, student spending, and capital expenditures, as mentioned above. The University directly supported 494 jobs and indirectly supported another 83 full-and part-time jobs in Mercer County. The majority of the output, earnings, and jobs supported by Wright State resulted from student

<sup>2</sup> Capital expenditures are large infrequent investments, which include equipment, construction and renovation, furniture, books and software.

spending. Lake Campus' operations, capital expenditures, and student spending led to approximately \$12.4 million in wages being paid in Mercer County.

**Table 6: Economic Impact of Lake Campus, FY 2016**

Impact Type	Output	Earnings	Employment
Direct	\$32,003,542	\$10,201,670	494
Indirect	\$7,846,965	\$2,201,256	83
<b>Total</b>	<b>\$39,850,507</b>	<b>\$12,402,926</b>	<b>577</b>

Source: Economics Center calculations using data provided by Wright State University, Emsi, and RIMS II multipliers. All monetary values are in 2016 dollars.

## FISCAL IMPACTS

During fiscal year 2016, Wright State University's Lake Campus generated approximately \$3.6 million in fiscal benefits, which accrued to local municipal and county, state, and federal governments, as displayed in Table 7. Fully 13.2 percent went to local governments, 42.5 percent accrued to the State of Ohio, and 44.3 percent accumulated to the U.S. federal government. The majority of local and state government revenues originated from sales taxes paid as a result of University employee and student spending.

**Table 7: Fiscal Impact, FY 2016**

Entity	Sales Tax <sup>3</sup>	Earnings Tax	Total
Local	\$325,228	\$143,031	\$468,259
State	\$1,246,708	\$266,514	\$1,513,222
Federal	-	\$1,577,322	\$1,577,322
<b>Total</b>	<b>\$1,571,936</b>	<b>\$1,986,867</b>	<b>\$3,558,803</b>

Source: Economics Center calculations using data provided by Wright State University, Emsi, and RIMS II multipliers. All monetary values are in 2016 dollars.

## CONCLUSION

The Lake Campus of Wright State University is embedded in the local community and economy of Mercer County. While the University's main function is to educate its students, it directly and indirectly supports the local economy through purchases as well as its ability to attract students and workers, who expend money in Mercer County. In fiscal year 2016, the University produced an estimated economic impact of approximately \$39.9 million in the local economy through direct expenditures and the purchases of its employees and students. Overall, the school supported employment in Mercer County of 577 people and \$12.4 million in total wages. The University also generated approximately \$468,000 in gross tax revenues for local municipal and county governments and the State of Ohio received more than \$1.5 million in total fiscal impact. Lake Campus has

<sup>3</sup> Sales taxes generally apply to final purchases of goods and services. The Economics Center applied the state and local sales tax rates to direct student expenditures as well as the household spending, or the induced impacts associated with the one-time construction expenditures and ongoing operations expenditures.

benefited the area in numerous ways and will continue to through its work, that of its employees, and its students.

## METHODOLOGY

Economic impact figures represent the effects that a given entity and its associated economic activities have upon a surrounding community. Universities affect local communities through the purchases of local goods and services. In turn, those local businesses and households purchase goods and services. Applying the relevant multipliers for each industry allowed the Economics Center to give a realistic picture of the economic impact of Lake Campus' capital and ongoing operations expenditures as well as student spending.

The Economics Center calculated the impact of the Lake Campus of Wright State University using data submissions made by the University regarding student enrollment by origin location, operations expenditures, and employment figures, among others. To separate Wright State's Main Campus and Lake Campus, the Integrated Postsecondary Education Data System (IPEDS), which is part of the U.S. Department of Education was utilized. Enrollment, expenditures, and employment figures were weighted by each campus' submissions in the previous academic and fiscal year and applied to Wright State's data submission. These data were used in an input-output model, which measures goods and services produced in each industry and the use of those goods and services by other industries and households in a local area.

Student expenditures are estimated from the Bureau of Labor Statistics' Consumer Expenditure Survey Table 1300 for those under 25 years. The Economics Center organized expenditure categories and classified them according to the respective North American Industry Classification System (NAICS) industry code. All expenditures were weighted by the Bureau of Economic Analysis' Regional Price Parities to adjust for regional differences in the price of goods, rent, and other services. All categories were reduced by one-quarter to remove expenditures that occur during the summer semester, when active enrollment typically decreases. For retail categories, such as groceries, apparel, fuel, and personal care products, retail margins were then applied.

For this project, multipliers were derived from an input-output model created by the Bureau of Economic Analysis (BEA), a part of the U.S. Department of Commerce. This model, the constituent tables, and resulting multipliers are part of the BEA's Regional Industrial Multiplier System (RIMS II).

Wright State University's data submission separated local and non-local revenues sources. However, in the case of state-based funds, the Economics Center utilized Ohio Department of Taxation data on sales and earnings taxes to remove the share of Mercer County's contributions to Ohio's overall revenues.

For fiscal impacts, school submissions were utilized for their contributions to earnings, real estate, and corporate income tax for the institution and on behalf of their direct employees. To estimate local earnings taxes, the Economics Center generated a weighted average of the municipalities' share of total employment in Mercer County. That share of total employment was then multiplied by the municipalities' respective earnings tax rates and summed to generate the average earnings tax rate

for Mercer County. That derived rate was then applied to the earnings of all jobs supported by student spending, capital expenditures, and jobs indirectly supported by school operations expenditures.

## ABOUT THE ECONOMICS CENTER

The work of the Economics Center provides tools that help clients make better financial, policy, economic, and workforce development decisions. The critical data analyses empower business and civic leaders to respond to changing economic conditions, strengthen local economies, and improve the quality of life for their communities.