

**Economic Impact of Day and Overnight Visitors to the Mohican Valley**

**July 8, 2021**

**Prepared By:**

Eric Belleville

G. Jason Jolley, Ph.D.

Center for Economic Development and Community Resilience

Ohio University Voinovich School of Leadership and Public Service

*This project was conducted as part of the Ohio University's Rural Universities Consortium  
Economic Development University Center*



**OHIO**  
**UNIVERSITY**

Voinovich School of  
Leadership and Public Affairs

This report provides estimates of the economic impact of 1,000-day visitors and 1,000-overnight visitors to a three-county region (Holmes, Knox, and Ashland Counties) in Ohio. This analysis is designed the support the Ohio Mid-Eastern Governments Association (OMEGA) and its partners in developing estimates of potential increased visitation as a result of the proposed Mohican Valley Corridor project.

To provide these estimates, we constructed profiles that represent the spending patterns of tourists in the area. Expenditures are distinguished between day and overnight visitors. More accurate expenditure data could be recorded by surveying visitors to the Mohican Valley. In lieu of this, we assume total trip expenditures for each individual match the 2020 tourism impact report from the Ohio Development Services Agency (ODSA), and we assume the entirety of this visitor spending will occur in the three-county region. ODSA reports that the average day visitor in Ohio spends \$106 on trip-related goods and services, while the average overnight visitor spends \$327. We then create a trip budget for an average visitor by apportioning these totals across industries these expenditures would likely support. In the absence of survey data, this apportionment represents our ‘best guess’ at likely spending categories for recreational visitors. These industries, as well as visitor spending profiles, are shown below in table 1.

**Table 1 – Visitor Profiles**

Industry	IMPLAN Code	Day Spending	Overnight Spending
Fast Food Restaurants	509	\$ 6	\$ 12
Full-Service Restaurants	510	\$ 35	\$ 70
Misc. Retail	412	\$ 20	\$ 25
Sporting Retail	410	\$ 15	\$ 50
Gasoline	158	\$ 30	\$ 45
Hotel Room	507	\$ -	\$ 125
<b>Total</b>		<b>\$ 106</b>	<b>\$ 327</b>

Next, we leverage Impact Analysis for Planning (IMPLAN), an econometric modeling software, to derive the impact an increase in tourism would have on the region surrounding the Mohican Valley using 2019 data. IMPLAN models the ripple effect of change in one industry or activity through detailed accounting matrices and multiplier models. This region consists of Ashland, Holmes, and Knox counties. Because the impact of each additional tourist would be small, we instead measured the impact of 1,000 additional tourists to magnify results. Results for a thousand additional day visitors are shown in table 2, while results for a thousand additional overnight visitors are shown in table 3.

**Table 2 – Impact of 1,000 Day Visitors**

<b>Impact</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Value Added</b>	<b>Output</b>
1 - Direct	0.94	\$23,611	\$33,302	\$59,088
2 - Indirect	0.08	\$2,882	\$4,624	\$10,980
3 - Induced	0.08	\$2,956	\$5,729	\$10,326
<b>Total</b>	<b>1.1</b>	<b>\$29,450</b>	<b>\$43,656</b>	<b>\$80,394</b>
Multiplier	1.17	1.25	1.31	1.36

**Table 3 – Impact of 1,000 Overnight Visitors**

<b>Impact</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Value Added</b>	<b>Output</b>
1 - Direct	3.22	\$90,072	\$137,895	\$244,123
2 - Indirect	0.34	\$13,127	\$20,332	\$44,613
3 - Induced	0.31	\$11,185	\$21,677	\$39,070
<b>Total</b>	<b>3.87</b>	<b>\$114,384</b>	<b>\$179,904</b>	<b>\$327,806</b>
Multiplier	1.20	1.27	1.30	1.34

Every additional thousand additional day visitors to the Mohican Valley increases employment in industries related to tourism activities by 0.94. A multiplier of 1.17 implies that for every additional 100 jobs supported this way, an additional 17 jobs are supported in the three county region. Additionally, every thousand day visitors to the Mohican Valley generates an impact of \$80,394 for the three county region in economic activity.

For every additional thousand visitors to the Mohican valley that stay overnight, 3.22 additional jobs are generated supporting tourism activities. With a multiplier of 1.2, we can say that every additional 100 jobs generated this way creates an additional 20 jobs in the three county region. Every thousand additional overnight visitors generate \$327,806 in economic activity for the three county region.

Additionally, IMPLAN includes summary tables for industries that are most significantly impacted by these activities. These tables are shown below. Intuitively, many of the most impacted industries are ones that were included in the visitor spending profile. Day visitors have the strongest impact on full-service restaurants, while overnight visitors have the strongest impact on hotels.

**Table 4 – Top Ten Industries Impacted by Day Visitor Spending**

<b>Industry</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Value Added</b>	<b>Output</b>
509 - Full-service restaurants	0.56	\$ 11,470	\$ 19,525	\$ 35,426
412 - Retail - Miscellaneous store retailers	0.21	\$ 2,700	\$ 6,904	\$ 11,249
410 - Retail - Sporting goods, hobby, musical instrument and book stores	0.1	\$ 2,186	\$ 4,639	\$ 7,041
510 - Limited-service restaurants	0.09	\$ 1,471	\$ 2,792	\$ 6,450
447 - Other real estate	0.02	\$ 72	\$ 695	\$ 3,318
472 - Employment services	0.01	\$ 152	\$ 280	\$ 519
490 - Hospitals	0	\$ 336	\$ 336	\$ 777
406 - Retail - Food and beverage stores	0	\$ 87	\$ 87	\$ 235
476 - Services to buildings	0	\$ 52	\$ 52	\$ 215
411 - Retail - General merchandise stores	0	\$ 89	\$ 89	\$ 240
<b>Total</b>	<b>0.99</b>	<b>\$ 18,615</b>	<b>\$ 35,399</b>	<b>\$ 65,470</b>

**Table 5 – Top Ten Industries Impacted by Overnight Spending**

<b>Industry</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Value Added</b>	<b>Output</b>
507 - Hotels and motels, including casino hotels	1.36	\$ 40,900	\$ 70,290	\$ 125,001
509 - Full-service restaurants	1.13	\$ 23,161	\$ 39,424	\$ 71,533
410 - Retail - Sporting goods, hobby, musical instrument and book stores	0.34	\$ 23,161	\$ 15,502	\$ 23,529
412 - Retail - Miscellaneous store retailers	0.27	\$ 7,303	\$ 8,874	\$ 14,459
510 - Limited-service restaurants	0.18	\$ 3,146	\$ 5,970	\$ 13,792
511 - All other food and drinking places	0.06	\$ 1,664	\$ 2,384	\$ 3,745
447 - Other real estate	0.06	\$ 192	\$ 1,860	\$ 8,882
472 - Employment services	0.03	\$ 614	\$ 1,131	\$ 2,094
476 - Services to buildings	0.02	\$ 286	\$ 523	\$ 1,180
490 - Hospitals	0.02	\$ 1,268	\$ 1,497	\$ 2,932
<b>Total</b>	<b>3.47</b>	<b>\$ 101,695</b>	<b>\$ 147,454</b>	<b>\$ 267,146</b>