



**The Ward Museum  
Economic Impact Study**

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## Introduction

### The Ward Museum

The Ward Museum, established in 1975, is a valuable asset to the local economy. The Ward Museum is dedicated to the exhibition, collection, and promotion of wildfowl art and related materials and regularly hosts events serve to preserve the legacy of Lemuel and Steve Ward. The events hosted by the Ward Museum attract nearly 50,000 visitors each year with a significant portion of visitors coming from outside of the city, the state, and even the nation. The Ward Museum enhances the quality of life for local residents by providing a family-friendly recreation destination, promoting tourism, and providing special education and entertainment events.

### Economic Impact Modeling Background-IMPLAN

The IMPLAN model includes all economic effects when calculating total output/employment (i.e. this includes “direct” *plus* “indirect” *plus* “induced” (ripple effect) impacts). The IMPLAN model is based on Input-Output (IO) theory, for which Wassily Leontief was awarded the Nobel Prize in Economics in 1973. In IO models, the “jobs supported” estimates are the number of jobs that are needed to produce the current level of local output at the average productivity levels of workers in their respective industries. The IMPLAN model is based on actual Wicomico County data from 2010 inflated to 2012 figures. The principle advantage of the IO IMPLAN model is in its utilization of state and county-specific data.

## Economic Impact Analysis

### Results

The aggregate annual economic impact of the Ward Museum in the local region County, Maryland in FY 2011-12 was approximately \$6.1M (including \$4.0M in direct impacts, \$.9M in indirect impacts, and \$1.2M in induced impacts<sup>1</sup>) and supporting 55 local jobs<sup>2</sup>. The economic impact of the Ward Museum manifests itself through two channels: 1) the tourism impact of attracting visitors from outside the study area, and 2) the impact of the expenditures to operate the Ward Museum. The economic impact generated by the Ward Museum is nearly equally split between that generated by operations (44%) and that generated by tourism (56%). Operating expenses generated an aggregate economic impact during the FY 2011-12 period of \$2.6M (including \$1.7M in direct impact, \$.3M in indirect impact, and \$.6M in induced impact) and supported an additional 20 local jobs. Tourism generated a total of \$3.5M (including \$2.2M in direct impact, \$.6M in indirect impact, and \$.6M in induced impact) and supported an additional 18 jobs in the local economy.

In addition to the economic impact generated by the Ward Museum, there is a significant amount of volunteer hours from which Ward Museum benefits. In FY 2012 the Ward Museum recorded approximately 19,000 volunteer hours. While not all volunteer work was recorded, the 19,000 hours that were captured translate into a total value of approximately \$433,000 dollars. This estimate is based on the value of volunteer time as calculated by the Independent Sector network ([http://www.independentsector.org/volunteer\\_time](http://www.independentsector.org/volunteer_time)). Without these volunteers, the Ward Museum would have had to dedicate limited resources to securing full-time or part-time employees to cover the work done by the volunteers.

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<sup>1</sup> Direct, indirect, and induced impacts are defined by the Minnesota IMPLAN Group, Inc as follows: Direct impact is the impact created by the money from the defined activity entering the economy. The indirect impacts are determined by the amount of the direct effect spent within the study region on supplies, services, labor, and taxes. The induced effect measures the money that is re-spent in the study area as a result of spending from the indirect effect.

<sup>2</sup> The jobs total includes those currently employed by the Museum (17) as well as the additional jobs in the community supported by the activities of the Museum (41). Jobs as reported by IMPLAN include all full-time, part time, and temporary positions.

## **Assumptions**

The results of this economic impact analysis are based on the data provided by the Ward Museum. Specifically, the impact of operating the Ward Museum is based on the FY11-12 Actual Operating Budget expenditures. For detailed assumptions relating to the impacts related to tourism generated by The Ward Museum see Appendix A.

All of the output impact totals are reported in 2012 dollars.

## Summary Impact Tables

### **Total Operating Impact Summary<sup>3</sup>**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Total Value Added</b>	<b>Output</b>	<b>Total</b>
Direct Effect	17	\$459,580	\$536,882	\$744,043	\$1,740,505
Indirect Effect	1	\$55,421	\$84,794	\$154,563	\$294,778
Induced Effect	3	\$106,555	\$194,683	\$326,768	\$628,006
Total Effect	20 <sup>4</sup>	\$621,556	\$816,359	\$1,225,374	\$2,663,289

### **Total Tourism Impact Summary**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Total Value Added</b>	<b>Output</b>	<b>Total</b>
Direct Effect	13	\$376,874	\$648,834	\$1,211,095	\$2,236,803
Indirect Effect	2	\$111,890	\$178,723	\$329,653	\$620,266
Induced Effect	3	\$102,649	\$187,760	\$315,061	\$605,470
Total Effect	18	\$591,413	\$1,015,317	\$1,855,810	\$3,462,540

### **Total Impact Summary**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Total Value Added</b>	<b>Output</b>	<b>Total</b>
Direct Effect	30	\$836,454	\$1,185,716	\$1,955,138	\$3,977,308
Indirect Effect	3	\$167,311	\$263,517	\$484,216	\$915,044
Induced Effect	6	\$209,204	\$382,443	\$641,829	\$1,233,476
Total Effect	38	\$1,212,969	\$1,831,676	\$3,081,184	\$6,125,829

<sup>3</sup> See Appendix B-Glossary for definitions of Labor Income, Total Value Added, and Output.

<sup>4</sup> May not sum exactly due to rounding.

## Appendix A- Assumptions

The three factors taken into account when estimating the tourism impact of The Ward Museum are: meals, lodging, and gas expenditures as generated by Museum visits. In each of these categories, the tourism impact was based on the origin of visitors from the following four events: The Ward World Championship, Chesapeake Wildfowl Expo, and the Art in Nature Photo Festival. A table is attached condensing the following distributions. It was assumed that for the Ward World Championship, 90% of the visitors were from out of town, and of those visitors it is assumed 50% stayed one night and 25% stayed two nights in lodging. For the Chesapeake Wildfowl Expo, it was assumed that 41% of the visitors were from out of town, and of those visitors it is assumed 40% stayed one night and 10% stayed two nights in lodging. For the Art in Nature Photo Festival, it was assumed that 20% of the visitors were from out of town, and of those visitors it is assumed 40% stayed one night and 10% stayed two nights in lodging. Lodging rates are based on the average rate found on Hotels.com for the Salisbury, Maryland which is \$95.75 per night. For each visitor staying in lodging, it was assumed that lunch and dinner would be purchased each day of the stay. Therefore the distribution used for food expenditures is identical to that of the lodging. The meal expenditure rates are based on the State of Maryland per diem rates of \$10.00 for lunch and \$24.00 for dinner. For both the Ward World Championship and the Art in Nature Photo Festival it is assumed 60% of those visitors drove a vehicle, and of those visitors it was assumed that 25% filled their gasoline tank. For the Chesapeake Wildfowl Expo it was assumed that 35% of the visitors drove a vehicle, and of those visitors it was assumed that 25% filled their gasoline tank. For the purpose of this model, we assumed cars would have an average size (15 gallon) gasoline tank, and the gasoline could be purchased at an average per gallon cost of \$3.65 (based on the average per gallon gasoline price published by the Bureau of Labor Statistics for the last six months). It was also assumed that visitors spent an average of \$25 at each event.

## Breakdown of Assumptions

	Out of Town Visitors	Visitors Lodging 1 Night <sup>1</sup>	Visitors Lodging 2 Nights <sup>1</sup>	1 Lunch, 1 Dinner <sup>2</sup>	2 Lunches, 2 Dinners <sup>2</sup>	Percent Driving <sup>3</sup>	Percent Purchasing Gasoline <sup>4</sup>
Ward World Championship	90%	50%	25%	50%	25%	60%	25%
Chesapeake Wildfowl Expo	41%	40%	10%	40%	10%	35%	25%
Art in Nature Photo Festival	20%	40%	10%	40%	10%	60%	25%

1. The assumed percent of out of town visitors that used local lodging.
2. The assumed percent of out of town visitors that purchased designated meals locally.
3. The assumed percent of out of town visitors that drove a vehicle.
4. The assumed percent of visitors that drove a vehicle that purchased gasoline.



## Appendix B- Glossary

**Labor Income-** All forms of employment income, including Employee Compensation (wages and benefits) and Proprietor Income.

**Output-** Output represents the value of industry production. In IMPLAN these are annual production estimates for the year of the data set and are in producer prices. For manufacturers this would be sales plus/minus change in inventory. For service sectors production = sales. For Retail and wholesale trade, output = gross margin and not gross sales.

**Value Added-** The difference between an industry's, or an establishment's, total output and the cost of its intermediate inputs. It equals gross output (sales or receipts and other operating income, plus inventory change) minus intermediate inputs (consumption of goods and services purchased from other industries or imported). Value added consists of compensation of employees, taxes on production and imports less subsidies (formerly indirect business taxes and nontax payments), and gross operating surplus (formerly "other value added"). (BEA); Gross value added is the value of output less the value of intermediate consumption; it is a measure of the contribution to GDP made by an individual producer, industry or sector; gross value added is the source from which the primary incomes of the SNA are generated and is therefore carried forward into the primary distribution of income account. (SNA).