
Estimating the Economic Impact of the Chesapeake Bay Maritime Museum In Talbot County, Maryland



Study Conducted by:

BEACON
Business Economic and Community Outreach Network
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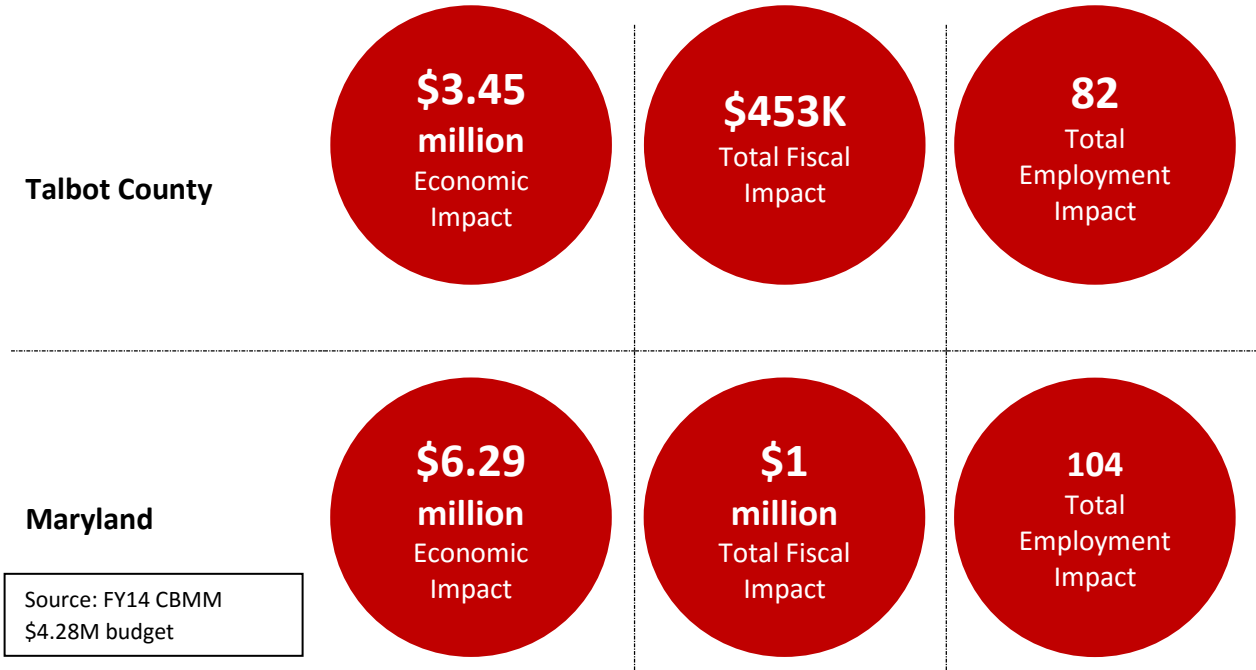
June
2016

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CBMM Economic Impact Assessment: Key Figures

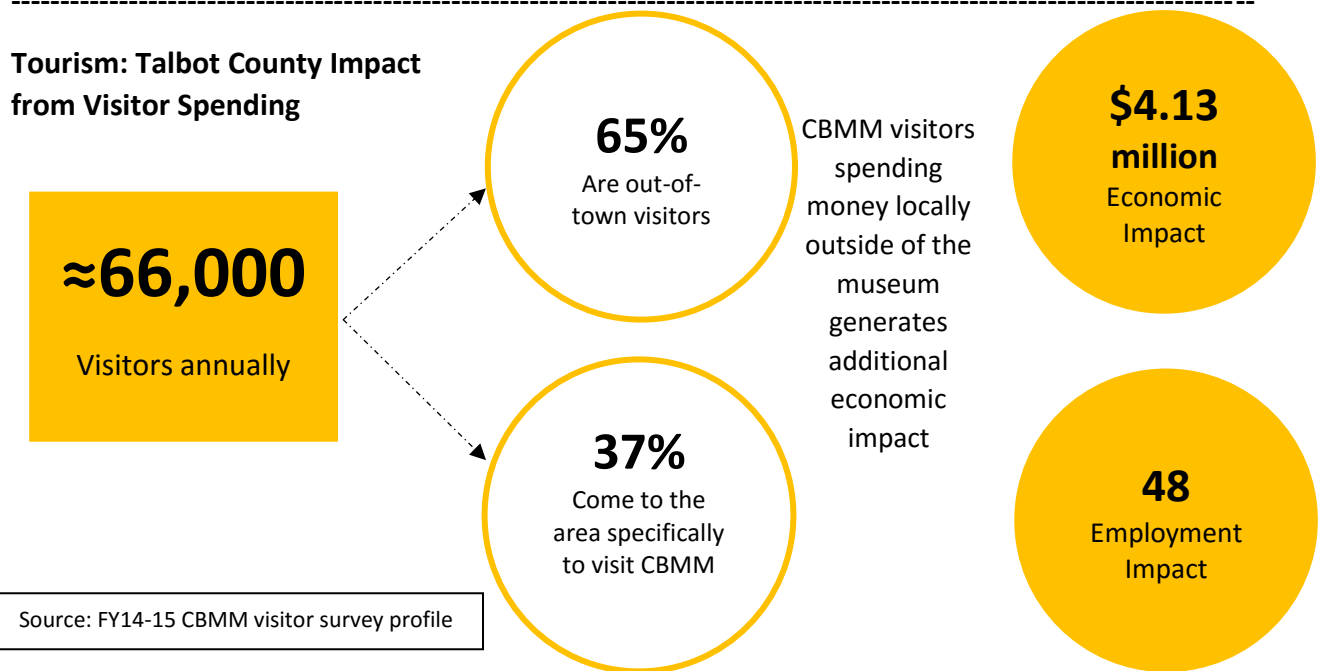
Impact from CBMM Operations



Economic Impact: The sum of direct effects, indirect effects, and induced effects

Employment Impact: Full-time and part-time jobs supported in the study region as a result of economic activity

Tourism: Talbot County Impact from Visitor Spending



Total Annual Estimated Impact of CBMM on Talbot County =



Executive Summary

The Chesapeake Bay Maritime Museum (CBMM) is both a valuable asset to the local economy and a significant contributor to the quality-of-life of county residents. Through its operations, CBMM generates approximately \$3.45 million in total economic impact annually. This economic activity supports 82 jobs in Talbot County and is associated with nearly \$314K in federal fiscal impact and \$139K in state and local fiscal impact. The impact within the state of Maryland is even greater as the surrounding Maryland counties capture some of the economic activity that leaks outside of Talbot County. In Maryland, the total annual estimated economic impact is approximately \$6.29 million and a total of almost 104 jobs are supported. The economic activity generated at the state level is associated with nearly \$759K in federal fiscal impact and nearly \$249K in state and local fiscal impact. If the museum did not exist, Talbot County would need to attract a factory that employs around 100 workers at an average of \$16 per hour, with annual sales of over \$6 million to reach a similar local impact. This comparison assumes that over 50% of such a factory's output would leave Talbot County.

“CBMM is a warm and wonderful lesson in the history of watering, crabbing, oystering, and sailing on the Miles River feeding into the Chesapeake Bay.”

In addition to its annual impact from operations, the study also examines the economic impact generated through the increased tourism that results from the presence of CBMM. A visitor profile was developed through data gathered in a visitor survey conducted by CBMM from October 2014 to September 2015. The responses to the visitor survey have been used to estimate the economic activity generated by CBMM visitors through their spending at local businesses outside of the museum. This additional economic impact approaches \$4.13 million annually and supports an additional 48 jobs in the local economy.

This study also examines the additional value that CBMM brings to the region. This additional value, while more difficult to quantify, is very important if the total regional impact of the museum is to be fully understood. CBMM brings significant value to Talbot County beyond strictly its economic impact. The museum enhances the quality-of-life for local residents by providing a family-friendly recreation destination, promoting tourism, and providing special education and entertainment opportunities. As part of the economic development puzzle,

CBMM adds to the cultural and arts amenities that help to attract and retain residents. The high volume of visitors the museum brings to the county also provides more opportunities for local business growth and expansion. When entities make a place more attractive to residents and businesses it also serves to increase property values and, therefore, the property taxes that help to fund important county services. CBMM also provides St. Michaels, Talbot County, and the larger region with significant marketing value as its branded advertising increases awareness of not just the organization but also the general region as a place to visit.

Study Overview

All estimates are provided on an annual basis unless otherwise noted. This study examines two geographic areas: Talbot County and Maryland.

Unless otherwise noted, all estimates are based on actual FY14 data and visitor profile data from the summer and fall of 2015. Although FY15 data is available, given a change in CBMM’s fiscal year, FY15 captures only ten months of operations and, therefore, does not capture a full year of expenditures.

Economic and Employment Impact of Operations

The annual operating budget of CBMM includes nearly \$4.28 million in FY14. The significance of this spending level increases as the multiplier effect is taken into consideration. Many individuals and businesses receive funds from CBMM as employees and vendors. These funds are then re-spent in the local economy on goods and services.

Talbot County Impact

Table 1 shows the estimated annual economic and employment impact of CBMM’s operating budget for FY14 in Talbot County. After accounting for leakage, the direct economic effect is approximately \$1.92 million. This spending creates an indirect effect of approximately \$845.03K and an induced effect of approximately \$684.19K. Thus, the total estimated economic effect from operations is \$3.45 million in Talbot County. In other words, each dollar spent in operational monies by CBMM that is retained in Talbot County results in total economic activity in the county of \$1.79 in the region.

Table 1. Economic and Employment Impact of CBMM’s Operating Budget in Talbot County		
	Economic (\$ millions)	Employment
Direct Effect	1.92	52.00
Indirect Effect	0.85	15.06
Induced Effect	0.68	14.94
Total Effect	3.45	82.00

CBMM’s operations have a total employment in Talbot County of 82 jobs (including both full-time and part-time jobs).

Spending by CBMM on vendors and employees results in indirect and direct spending, involving taxable transactions. The total fiscal impact of the economic activity that occurs in Talbot County because of CBMM’s operations is approximately \$452.4K which includes \$313.76K in federal taxes and \$138.65K in state and local taxes.

Maryland Impact

A portion of the money spent by CBMM that leaks outside of Talbot County is retained elsewhere in the state of Maryland. This money continues to churn within Maryland’s economy resulting in additional indirect and induced impacts.

Table 2. Economic and Employment Impact of CBMM’s Operating Budget in Maryland		
	Economic (\$ millions)	Employment
Direct Effect	3.12	67.00
Indirect Effect	1.86	19.67
Induced Effect	1.31	16.94
Total Effect	6.29	103.61

Table 2 shows the estimated annual economic and employment impact of CBMM’s operating budget for FY14 in Maryland. The direct economic effect that is retained statewide is approximately \$3.12 million. This spending creates an indirect effect of approximately \$1.86 million and an induced effect of approximately

\$1.31 million. Thus, the total estimated economic effect from operations is \$6.29 million in Maryland. In other words, each dollar spent in operational monies by CBMM that is retained in Maryland results in total economic activity of \$2.01.

CBMM’s operations have a total employment in Maryland of 103.61 jobs (including both full-time and part-time jobs).

The direct spending by CBMM on employees and vendors, plus the related indirect expenditures, involves taxable transactions. The total fiscal impact of the economic activity that occurs in Maryland because of CBMM’s operations is approximately \$759K which includes \$510K in federal taxes and \$248K in state and local taxes.

Economic Impact of Visitor Spending

Beyond the impact CBMM generates in the local economy through its spending is the significant economic activity generated by those who come to the area to visit the museum. Approximately 66,000

visitors come to CBMM each year. The input data for the economic impact of tourism is based on visitor data from October 2014 through September 2015 and a visitor survey conducted by CBMM.

“This town and the museum has become our favorite vacation spot for a long weekend or weeks at a time just relaxing and enjoying the atmosphere. I would and have returned here many times in the last 4 years, usually several times during the year.”

When estimating the impact of visitor spending, museum admission fees and CBMM store sales are excluded as these dollars are already included in the CBMM budget captured in the operations impact estimates. Approximately 65% of visitors to CBMM reside outside of county. The money that these visitors bring to the county through spending during their visit is considered “new money” to the area.

Furthermore, approximately 37% of visitors indicated that they came to area specifically to visit CBMM. It is estimated that approximately 5% of visitors who are coming from out-of-town specifically to visit the museum also stay overnight locally. Additionally, approximately 10% of visitors come to CBMM for major events including weddings and corporate events. These impacts from dollars spent by these visitors can be directly attributable to the existence of the museum. Spending of Talbot County residents who visit the museum is not included in this analysis as these residents would have spent their money locally regardless of the presence of the museum.

It is assumed that the average visitor to the museum purchase either lunch or dinner locally and spend a, conservative, average of \$15 per visitor on retail spending. For overnight guests, an average hotel room rate of \$125 is assumed. Visitors that are coming to CBMM for weddings and major events are assumed to

Tourism generated by CBMM creates approximately \$4.13 million in economic activity annually, supporting 48 additional local jobs.

stay, on average, 2 nights in the county. Furthermore, significant additional spending occurs in the local economy due to the major events including food and beverage catering, equipment rentals, transportation, etc. Based on these assumptions, it is estimated that CBMM generates approximately \$4.13 million in economic activity annually in Talbot County through the tourism that it generates. This

“An easy day trip with close access to the cafes and food spots in Saint Michaels. The town is adorable and the bay is teeming with life. A great afternoon off the highway. Worth the trip!”

economic activity supports approximately 48 jobs in the local economy. The estimated fiscal impact includes \$330.8K in state and local taxes and \$382.7K in federal taxes.

The varied business partnership and discount programs CBMM has with other local businesses helps to bolster this effect.

This analysis does not capture the economic impact of others traveling with museum visitors who opt not to visit the museum, and of visitors who are drawn to the community because of the museum but, for whatever reason, do not actually visit the museum. This additional impact could be anywhere from 3% to 5% of the estimated regional impact of the CBBM.

Community Value Beyond Operations

The presence of cultural organizations in general, and organizations that focus on a region’s heritage in particular, provides benefits to members of the surrounding community beyond their quantifiable economic and employment impacts. Heritage organizations provide many positive quality-of-life benefits that are important to consider in understanding the total impact of such organizations.

“Taking in the views of the Miles River from land and water added to our special time in St Michaels.”

“My husband and I have visited this museum every time we have gone to St. Michael's Maryland. Its exhibitions are informative and there is always some type of event or program which you may participate in.”

Over the past 15+ years, the popularity of heritage tourism has grown with travelers and with those developing new tourism attractions. In addition to creating new jobs, new businesses, and higher property values, well-managed tourism improves the quality of life and builds pride in the community. That is particularly true for the heritage segment of the market.

Heritage travelers are more likely to take part in a wide variety of activities when they are traveling when compared to other categories of visitors. These visitors are looking for more than just museums or historic sites. They are interested in experiences where the destination, its buildings, and surroundings have retained their historical character, as well as lodging that reflects the local culture. That CBMM adds to this overall quality by combining experiences at the museum with complementary attractions is an effective strategy to increase the length of stay and tourism expenditures. This benefits all segments of the region’s economy.

Economic Development

Museums are economic development assets in terms of both business and workforce development. The visitor traffic generated by CBMM benefits many local and regional firms and organizations. Also, the presence of high caliber cultural and heritage amenities in a community influences where workers, as well as wealth creating individuals, want to live. These amenities play an important role in the region’s ability to attract and retain residents who create a high level of positive economic activity. This is particularly true for the creative and entrepreneurial classes, and those looking for meaningful volunteer opportunities within a community.

Dr. Dan Hull, in a 2011 Research and Library Service Report in Northern Ireland has examined the social value of museums in the United Kingdom. Using his approach, we find that CBMM has a number of social impacts that add to its overall economic value:

1. *Learning and Education*

The museum, through scholarship and research, acts as a resource for educational institutions. CBMM has a wide variety of educational collaborations with organizations including: St. Michaels Community Center, Talbot County Head Start, Talbot County Public Schools, Sultana Education

“It has an incredible amount of information about the history of the area, the people, and how they lived their lives. I have been there 3 times and I still don't think I've seen everything!”

Foundation, Midshore Riverkeepers Conservancy, Chester River Bird Conservancy, Maryland Department of Natural Resources, Miles River Power Squadron, Terrapin Institute, Frederick Douglass Honor Society, Environmental Concern, Chesapeake Bay Foundation, Phillips Warf Environmental Center, Academy Art Museum, Benedictine School, Living Classrooms, Talbot

YMCS, Horn Point Labs, Blind Industries, Ducks Unlimited, Washington College, and Havre de Grace Decoy Museum.

2. *Creative Industries*

The museum, through its cultural and heritage offerings, sparks creative inspiration. CBMM brings cultural and heritage offerings to visitors through its regular programs, tours, exhibitions, and special events. Such exhibitions include the working boatyard and Chesapeake People. CBMM brings the heritage of the region to life with its Blessing of the Fleet Event, celebration of Waterman’s Appreciation Day, and OysterFest, among many other special events.

“A master crab net maker, Harvey, was onsite and taught us how he makes beautiful crab nets. The history of boat making and museum displays are amazing.”

3. *Civic Pride*

The museum acts as a landmark. Its institutional buildings are important to the architectural heritage of the region and serve as a mark of a ‘civilized’ community, as an icon for promotion and as a venue for events.

“I believe it is vitally important to preserve the flavor and fact of times past in order for us to understand our present times. CBMM has always done this with great success and I am proud to be a member and contributor Thank you for your work”

Property Value Impacts

Arts and cultural assets, such as museums, are an important part of the make-up of a locality, adding to the overall hedonistic value of that community. In the aggregate, the presence of such assets helps to increase the desirability of properties in a community. As a result, their presence contributes to our understanding of property values in the area. The economic and quality-of-life benefits that arts and culture organizations bring to an area work to make the community a more attractive place to live. Prospective residents have an increased willingness-to-pay for housing in a community that is seen as more attractive. This increased willingness-to-pay, overtime, helps to increase the property values in a given community. In St. Michaels, CBMM plays a role in increasing the desirability of residential properties in the area.

While there are many other factors that also increase consumers' willingness-to-pay for residential properties, including proximity to waterways, proximity to other major metropolitan areas, highly rated school systems, etc., the arts and culture organizations are an important piece of the overall offerings of a community. This type of impact is most immediately felt in close proximity to the organization with diminishing returns the further out a given property is from the organization. In the case of CBMM, most of the property value benefits are accrued in the immediate area of St. Michaels with benefits gradually decreasing further out into Talbot County.

Increased property values result in increased property taxes. The higher resulting property taxes produce a trickle-down effect by allowing local government to reinvest more into the community.

Marketing Value to Talbot County

Through its marketing activities, CBMM also provides St. Michaels, Talbot County, and the larger region a branded offering that transcends its own marketing needs. Any marketing for CBMM that targets

“Great maritime museum which combined nautical information with historical information of the area... The area is very charming, too, and I'd like to go back for a tour of the surrounding area.”

consumers outside of the immediate area also serves as a marketing message for Talbot County and for St. Michaels. Marketing that seeks to bring visitors to CBMM or to increase their knowledge of CBMM also helps to increase awareness of Talbot County and the culture and tourism offerings that are present. For consumers that are not aware of or have not visited Talbot County, such promotions may be

the catalyst to entice them to visit and explore the area for the first time. CBMM's marketing efforts serve as no or low cost co-operative marketing offerings for the county and for the town. This is especially the case given CBMM's strong online presence, reaching over 167K people and actively engaging nearly 20K per week.

Methodology

The economic impact of CBMM was estimated using IMPLAN (Impact Analysis for PLANing), an econometric modeling system developed at the University of Minnesota and U.S. Forest Service. The IMPLAN model includes all economic effects when calculating total output/employment (i.e. this includes “direct” plus “indirect” plus “induced” 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 regional data from 2013 inflated to 2015 figures. The principle advantage of the IO IMPLAN model is in its utilization of state and county-specific data. The Social Accounting Matrixes in IMPLAN provide the multipliers or estimates of additional effects of the indirect and induced economic and employment impacts.

The direct economic impact includes the initial spending by CBMM to its employees, through salaries, or to businesses and vendors.

The indirect economic impact accounts for the additional spending and jobs supported in the local economy from the spending to local suppliers. These local suppliers pay salaries to their employees from the money received from contracts with the museum. Additionally, they contract with other local firms for goods and services.

The induced economic impact accounts for the additional spending and jobs supported in the local economy from consumer retail spending associated with the direct and indirect effects. For example, employees of CBMM and those of the firms contracting with CBMM will spend a significant portion of their salaries in the local economy. This spending supports additional jobs at local firms.

At each level of impact, there is “leakage.” Leakage accounts for the spending that goes to employees and vendors outside of the region. Once this money exits the region, it is not available for re-spending or recirculating within the region.

Model Inputs and Data Sources

Primary model inputs include actual fiscal expenditures provided by the Chesapeake Bay Maritime Museum for FY14, visitor survey results, and visitor zip code data. Housing data was obtained from the United States Census American Community Survey, 2009-2013 5-Year Estimates.

Glossary

Direct Effects- The set of expenditures applied to the predictive model (i.e., I/O multipliers) for impact analysis. In this case, the expenditures of CBMM.

Indirect Effects- The impact of local industries buying goods and services from other local industries. This includes CBMM's vendors who purchase goods and services locally in order to fulfill the orders they receive from the museum as a result of the direct effects.

Induced Effects- The response by an economy to an initial change (direct effect) that occurs through re-spending of income received by a component of value added. This includes the spending by CBMM's employees and its vendors' employees on goods and services in the local economy as a result of the direct effects.

Total Economic Impact- The sum of direct effects, indirect effects, and induced effects.

Employment Impact- Full-time and part-time jobs supported in the study region as a result of the economic activity

Leakage- Spending that leaves the study region. This includes money that is re-spent by CBMM, its vendors, or CBMM and vendor employees on goods and services outside of the region.

Multiplier Effect- A numeric way of describing the secondary (indirect and induced) impacts stemming from the direct economic activity

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 sales¹.

¹ IMPLAN Glossary, www.implan.com