

THE ECONOMIC IMPACT OF NATIONAL HERITAGE AREAS: A CASE STUDY APPROACH

An aerial photograph of a marathon race in Baltimore, Maryland. The race is taking place on a paved road that runs along a green park area. In the background, there is a harbor with many boats and a city skyline with several tall buildings. The sky is blue and clear. The text "BALTIMORE NATIONAL HERITAGE AREA AUGUST 2017" is overlaid on the image in white, bold, sans-serif font.

BALTIMORE
NATIONAL HERITAGE AREA
AUGUST 2017

**Tripp
Umbach**

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INTRODUCTION

National Heritage Areas (NHAs) provide economic benefits to communities and regions through their commitment to heritage conservation and economic development. Through public-private partnerships, NHA entities support historic preservation, natural resource conservation, recreation, heritage tourism, and educational projects. Leveraging funds and long-term support for projects, NHA partnerships generate increased economic impact for regions in which they are located.

Since 2012, Tripp Umbach has completed comprehensive economic impact studies for more than 20 National Heritage Areas across the United States, including the Baltimore National Heritage Area (BNHA). Findings from the 2012 study, which included data from fiscal years 2009, 2010, and 2011, determined that BNHA had the following economic impact on the Baltimore City region:

2012 Economic Impact Study Findings

- **Baltimore National Heritage Area generated \$318.8 million in economic impact, supported 4,184 jobs, and generated \$31.8 million in tax revenue.**

As heritage areas grow operations, increase partnerships, invest in local communities, and further attract tourism, it is key to consistently evaluate the impact that NHAs have on their regional economies to track growth in economic benefit generated by the NHA and its initiatives. This study seeks to quantify the current economic impact of BNHA on the Baltimore, Maryland region.¹



The lightship *Chesapeake* is part of the Historic Ships in Baltimore, the city's maritime museum. Visitors are afforded a rare opportunity to step aboard three 20th-century vessels that kept America safe before, during, and after World War II: a U.S. Coast Guard cutter that survived Pearl Harbor, a Tench-class WWII submarine, and the lightship that once marked the entrance of the Chesapeake Bay. The museum is also home to the USS *Constellation*, the last sail-only ship built by the U.S. Navy. Credit: Jason Vaughan/BNHA

¹ BNHA's impact study was analyzed for Baltimore City in both the 2012 and 2017 studies.

The current economic impact of BNHA (based off of data from fiscal years 2014, 2015, and 2016) shows that the heritage area's efforts to invest in local projects and programs through grantmaking and capital funding support, boost tourism, and increase quality of life in communities since the 2012 study has generated additional economic impact in the Baltimore region.

2017 Economic Impact Study Findings

- **Baltimore National Heritage Area generates \$534.5 million in economic impact, supports 6,110 jobs, and generates \$38.2 million in tax revenue.**

NHAs SUPPORT REGIONAL ECONOMIES

THE BALTIMORE NATIONAL HERITAGE AREA
GENERATES **\$534.5 MILLION** IN ECONOMIC IMPACT



SUPPORTS **6,110** JOBS



GENERATES
\$38.2 MILLION
IN TAX REVENUE.

PROJECT OVERVIEW

In January 2017, Tripp Umbach was retained by the Heritage Development Partnership to measure the economic, employment, and government revenue impacts of the Baltimore National Heritage Area (BNHA). The goals of the economic impact study include the following:

- To quantify the current economic and employment impacts of BNHA operations on the Baltimore region.
- To demonstrate the broader community impact that BNHA has on the Baltimore region.

This report builds upon the previous impact study completed to assess the economic benefits of BNHA. Similar to the 2012 study, Tripp Umbach collected existing NHA visitor estimates, operating budgets, grantmaking, capital awards, and volunteer hours. The data collection process guided the economic impact analysis using IMPLAN.²

Key economic impact findings presented within the summary include the economic, employment, and state and local government revenue impact of BNHA in the Baltimore region. The economic analysis completed for the operational, grantmaking, and capital activity impact uses actual expenditures and NHA employment to drive estimates of employment, income, tax revenue, and other economic variables.

Visitor and Tourism Expenditures: The economic impact of visitors to NHAs is the **primary source** of economic benefit quantified in this analysis. The direct consequence of visitor expenditures become business receipts, which in turn, are used to pay wages, salaries, and taxes. The initial, direct round of spending ripples through the regional economy supporting additional economic benefits. Given the unique challenges of capturing visitor data by NHAs, the economic model includes local visitor estimates within the analysis.³ The visitor benefit analysis model clearly states an explicit relationship to overall visitor estimates reported by BNHA and analysis of the visitor segments and their spending patterns. The model also estimates visitor expenditures.

Operational Expenditures: These expenditures are the economic impact of BNHA's organizational spending and staff. This refers to the day-to-day spending of the NHA; wages, rent, and professional fees paid by BNHA on an annual basis are included in this segment.

² This analysis requires the use of IMPLAN3 software and geographic data representative of the NHA's local and state region. Additional information on IMPLAN can be found at <http://implan.com>.

³ The analysis of visitor spending includes local spending estimates.

Grantmaking and Capital Expenditures:

NHA-secured federal and state funding in the form of grantmaking to specific sites within the region primarily allows for the creation and development of projects and initiatives that further add to the historic, cultural, and recreational offerings of the NHA region. Funding focused on capital and construction development is quantified as well.

NHAs also provide intangible benefits that are not able to be quantified. Knowledge sharing, facilitating collaborative partnerships, and increasing the quality of life are elements that each NHA brings to its community. While these critical concepts are not quantified within the context of this report, they are highlighted through qualitative data that was collected.



The Baltimore and Ohio Railroad Museum is one of the city's most popular attractions. Over the years, the museum has received numerous grants from the heritage area to maintain its facilities and preserve its unique collection celebrating American railroading. Credit: Amanda Barrett

BALTIMORE NHA

A. OVERVIEW OF BALTIMORE NATIONAL HERITAGE AREA



Baltimore played a large role in shaping America and the nation's identity. Today, the rich history and heritage of Baltimore lives on through the Baltimore National Heritage Area (BNHA). Designated by

Congress in 2009, BNHA celebrates the innovation, sights, and culture that shaped Baltimore. The City is home to abundant historical, cultural, and natural resources, and BNHA works to preserve and promote the various offerings of Baltimore. Through grantmaking, partnerships, programming, and events, BNHA has been able to further develop the region's rich historic and cultural assets, creating a tourist destination and increasing quality of life in Baltimore.

One major way in which BNHA has been able to preserve the culture and heritage of the region is by supporting partner heritage sites through grants. BNHA manages multiple grant programs to provide needed funding toward various projects and initiatives. The heritage area manages a small capital grants program that has awarded more than \$1 million in 72 separate project grants. In addition, BNHA has worked with partners to receive more than \$3 million dollars in grants from the Maryland Heritage Areas Authority. The NHA also oversees the Heritage Investment Grant program that provides small but strategic

"SPOTLIGHT" PROJECT – KIDS IN KAYAKS PROGRAM

After months of planning and working with its partners, the Baltimore National Heritage Area launched the Kids in Kayaks program in fall of 2016. The program provides Baltimore City eighth-grade students a unique opportunity to learn a new skill (kayaking) while simultaneously learning about the history of their city and the Chesapeake environment. Students learn the basics of kayaking and are led on an exploration of the river and the small tributaries nearby. Students learn more about Baltimore's history (including the explorations of Captain John Smith in the 17th century and the 1814 Battle of Baltimore) and the flora and fauna that call the Chesapeake Bay home. Capped off by a lesson in stewardship, this place-based experience has been called out as "the best field trip ever" by participating teachers and students.

Around 500 students each school year have been able to explore the Middle Branch of the Patapsco River on kayaks. The 2017-18 school year will be the program's third year. The National Park Service's Northeast Regional Office supported Kids in Kayaks its initial year through a \$15,000 special opportunities grant. The heritage area matched this funding dollar for dollar; partners in the program provided additional in-kind funding.

investments toward non-capital heritage tourism focused projects and programs, including general operating support grants.

BNHA is working to continue to support heritage sites through grantmaking endeavors, as the heritage area has seen firsthand how investment in heritage sites and organizations has made a significant impact on neighborhoods throughout Baltimore. For example, BNHA awarded a \$7,000 Heritage Investment Grant to the National Great Blacks in Wax Museum, which is Baltimore’s first wax museum and first in the nation devoted to African American history. The grant will be used to help fund an economic impact study on the economic and social impact the museum will have on the Oliver neighborhood and surrounding areas with proposed expansion plans. In April 2017, BNHA held its first ever gala fundraiser to raise funds for the Heritage Investment Grant program. While numerous heritage area sites have benefited from BNHA’s grant funding, Baltimore as a whole also has realized gains, as these grants have helped to improve sites and expand programming that help generate tourism and economic impact.



Students from Baltimore’s Mount Royal Middle School take to the water from their launch point at the Baltimore Rowing Club. Credit: James Chang/Baltimore City Public Schools

Beyond serving as a partner and supporter of various heritage sites, BNHA offers programming, holds events, and works on projects that further promote the historic and cultural assets of the City. For example, BNHA developed the Authentic Baltimore program. In consultation with local hotels, museums, restaurants, and tour operators, the Authentic Baltimore program serves as a guide for visitors to learn of the many unique sites and experiences in Baltimore beyond typical tourist spots such as the Inner Harbor. The Authentic Baltimore program helps to attract tourism with the goal of boosting economic impact and development throughout Baltimore.

BNHA – QUICK FACTS

- NPS Northeast Region
- Sites throughout Baltimore City
- 22 square miles

The Baltimore National Heritage Area serves as a catalyst and promoter of tourism, investment, preservation, and education in the Baltimore region. BNHA recognizes the abundant historic and cultural resources in neighborhoods throughout the City of Baltimore and works with partner organizations to support heritage tourism. As BNHA looks to expand its reach by

extending its designated boundaries, the heritage area will further its impact on Baltimore’s tourism, economy, and neighborhood development.

B. OVERALL ECONOMIC IMPACT

The economic impact of the Baltimore National Heritage Area is **\$534.5 million**. This economic impact consists of four components: tourism (\$532.6 million), grantmaking (\$893,000), operations of the NHA (\$893,000), and capital project funding (\$136,228) (See Figure 1 and Table 1).⁴

FIGURE 1. OVERALL ECONOMIC IMPACT

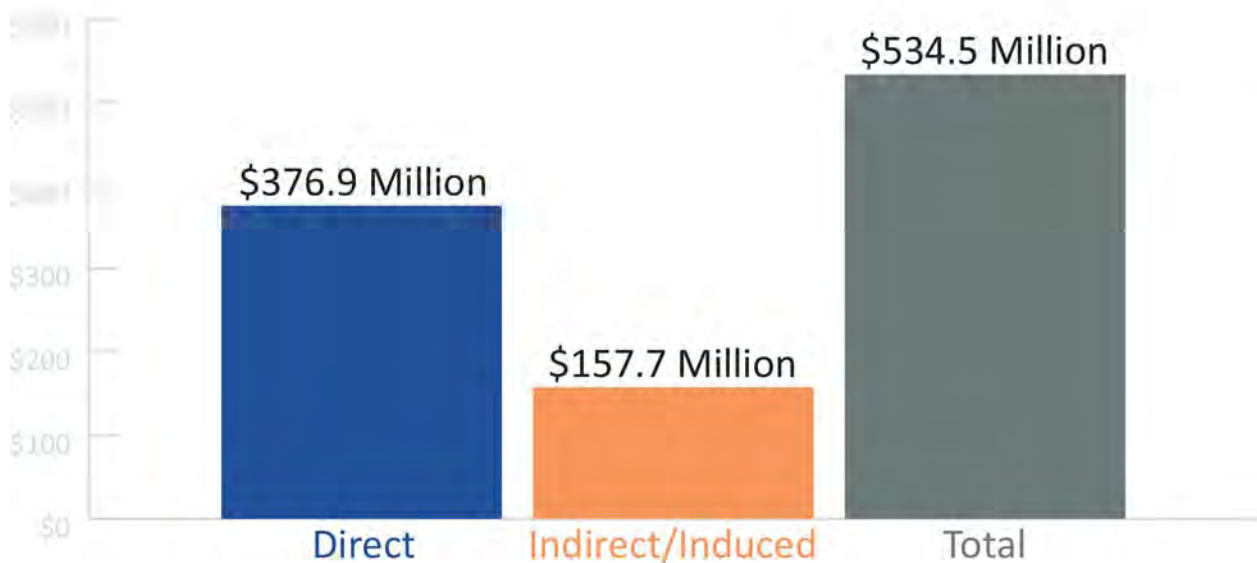


TABLE 1. OVERALL ECONOMIC IMPACT

	Direct Effect	Indirect Effect	Induced Effect	Total Effect
Economic Impact	\$376,852,234	\$86,547,191	\$71,125,550	\$534,524,975
<i>Tourism</i>	<i>\$375,611,959</i>	<i>\$86,171,763</i>	<i>\$70,818,289</i>	<i>\$532,602,011</i>
<i>Grantmaking</i>	<i>\$597,636</i>	<i>\$118,727</i>	<i>\$177,157</i>	<i>\$893,520</i>
<i>Operations</i>	<i>\$542,639</i>	<i>\$238,086</i>	<i>\$112,491</i>	<i>\$893,216</i>
<i>Capital Projects</i>	<i>\$100,000</i>	<i>\$18,614</i>	<i>\$17,614</i>	<i>\$136,228</i>

⁴ All data used to calculate impacts was based on a three-year average – 2014, 2015, and 2016.

The following table shows the top 10 sectors in the NHA region impacted by BNHA’s activities and visitors (See Table 2).

TABLE 2. TOP 10 ECONOMIC IMPACT SECTORS

Industry	Economic Output
Hotels and motels, including casino hotels	\$153,547,574
Full-service restaurants	\$89,001,011
Limited-service restaurants	\$39,503,293
Other amusement and recreation industries	\$39,370,548
Retail – Miscellaneous store retailers	\$26,921,606
Real estate	\$17,199,205
Transit and ground passenger transportation	\$13,026,749
Owner-occupied dwellings	\$10,991,559
Retail – Food and beverage stores	\$10,051,839
Retail – Gasoline	\$8,056,383

The components of the economic impact are broken out below.

C. TOURISM IMPACT

The effects of visitation and tourism have the greatest economic benefit for the regions in which NHAs operate. NHAs play a substantial role in supporting and encouraging tourism within their regions. Tourism numbers for BNHA are calculated by its regional partners. The three-year average total of visitors and tourists to BNHA is over 3.7 million visitors.⁵ These visitors spend money in the region, creating a positive ripple effect on the economic structure. BNHA’s efforts in working with partner sites and providing grants and capital funds for various initiatives throughout the heritage area has played a role in increasing tourism since the 2012 study.⁶ Based on the annual average number of visitors to the NHA region and its partner sites, \$532.6 million in economic benefit is supported currently within the state through tourism (See Table 3).

TABLE 3. ANNUAL ECONOMIC IMPACT OF TOURISM AND VISITATION

Visitor Segment	% of Total Visitation	Direct Effect	Indirect Effect	Induced Effect	Total Effect
Local Day	19%	\$17,426,273	\$4,350,643	\$2,732,844	\$24,504,760
Non-Local Day	41%	\$59,212,665	\$15,287,048	\$10,806,106	\$85,305,819
Overnight	40%	\$298,973,020	\$66,534,073	\$57,279,339	\$422,786,432
Total	100%	\$375,611,959	\$86,171,763	\$70,818,289	\$532,602,111

The economic spending analysis demonstrates that within the region, visitors traveling from outside the state and staying overnight represent the largest economic benefit to the economy of the NHA region. Although overnight visitors only comprise an estimated 40 percent of NHA

⁵ Annual tourism projections were utilized from 2014, 2015, and 2016.

⁶ The average number of visitors included in the 2012 study was 2.2 million.

visitation, overnight visitors account for close to 80 percent of the economic benefit of BNHA. This is primarily driven by the increased amount of fresh dollars from outside the state spent on lodging, accommodations, restaurants, transportation, etc.

D. GRANTMAKING IMPACT

BNHA is very active in providing grants to local partners and organizations that support projects and programs that are aligned with the educational, cultural, promotional, and economic development missions of the heritage area. Similar to how tourism generates economic activity within the region, grantmaking provides an infusion of funds to assist with the development of the heritage area (See Table 4).

TABLE 4. ANNUAL ECONOMIC IMPACT OF GRANTMAKING

	Direct Effect	Indirect Effect	Induced Effect	Total Effect
Grantmaking	\$597,636	\$118,727	\$177,157	\$893,520

The grantmaking activities of BNHA attract other organizations and funders in the region to monetarily support the development of programs and projects that support the overall mission of the NHA. While not accounted for in the overall economic impact of BNHA, the grantmaking of the heritage area allowed for leveraged funding for projects and initiatives, contributing an additional \$893,520 in economic impact.



Cyburn Arboretum is one of the many parks and greenspaces located within the heritage area's boundaries. Friends groups at this 200-acre city park, as well as others in the city, have received heritage area grants to help preserve historic structures and improve visitor interpretation. Credit: David Guiney

E. OPERATIONAL IMPACT

In addition to attracting visitors and providing grants in the region, the analysis quantifies the economic benefit of BNHA through its operating activities. This impact is represented by the spending of BNHA and the employees it supports (See Table 5).

TABLE 5. ANNUAL ECONOMIC IMPACT OF OPERATIONS

	Direct Effect	Indirect Effect	Induced Effect	Total Effect
Operations	\$542,639	\$238,086	\$112,491	\$893,216

F. CAPITAL PROJECTS

Capital investment of BNHA supports the creation of projects and sites within the NHA that allow for the further development and cultural preservation throughout Baltimore. Similar to how tourism, grantmaking, and operations support economic activity within the region, capital projects provide an infusion of funds to assist with the development of buildings, sites, and projects within the heritage area (See Table 6).

TABLE 6. ANNUAL ECONOMIC IMPACT OF CAPITAL PROJECTS

	Direct Effect	Indirect Effect	Induced Effect	Total Effect
Capital Projects	\$100,000	\$18,617	\$17,614	\$136,228

G. OVERALL EMPLOYMENT IMPACT

Baltimore National Heritage Area supports a substantial number of jobs in the state. The total employment impact is **6,110 jobs** (5,128 direct jobs and 982 indirect/induced jobs). Direct jobs are based on business receipts which in turn are used to pay wages and salaries within industries such as food services, retail, and lodging.

Indirect or induced jobs are supported by local businesses spending part of their receipts on goods and services they require to serve customers, including investment in new equipment and structures. This is the ripple effect of economic activity attributed to NHAs (See Figure 2 and Table 7).

FIGURE 2. OVERALL EMPLOYMENT IMPACT

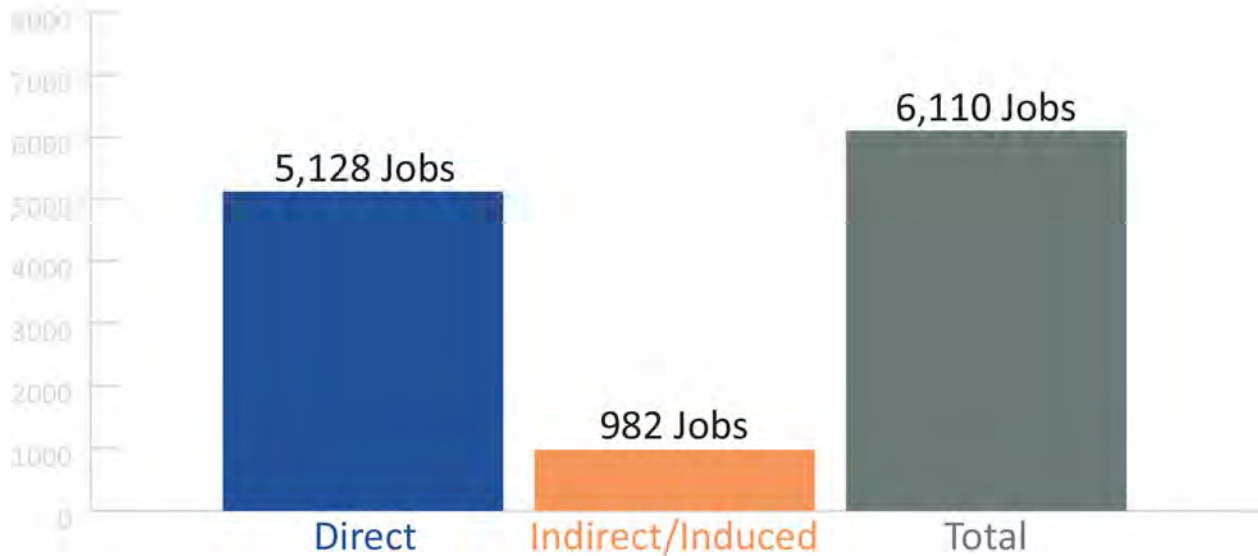


TABLE 7. OVERALL EMPLOYMENT IMPACT

	Direct Effect	Indirect Effect	Induced Effect	Total Effect
Economic Impact	5,128 jobs	498 jobs	484 jobs	6,110 jobs
<i>Tourism</i>	<i>5,093 jobs</i>	<i>496 jobs</i>	<i>482 jobs</i>	<i>6,071 jobs</i>
<i>Operations</i>	<i>27 jobs</i>	<i>1 job</i>	<i>1 job</i>	<i>29 jobs</i>
<i>Grantmaking</i>	<i>7 jobs</i>	<i>1 job</i>	<i>1 job</i>	<i>9 jobs</i>
<i>Capital Projects</i>	-	-	-	-

**Capital Project funding does not contribute any jobs. Leveraged grantmaking contributes an additional 9 jobs.*

The “Top Employment Sectors” table illustrates the sectors with the largest number of jobs (includes direct, indirect, and induced) supported by BNHA (See Table 8). Industries such as food services, hotels, and retail stores represent the largest number of jobs while the ripple effect illustrates that jobs in management and wholesale trade also are supported by the spending attributable to BNHA.

TABLE 8. TOP EMPLOYMENT IMPACT SECTORS

Industry	Jobs
Full-service restaurants	1,476 jobs
Hotels and motel, including casino hotels	1,186 jobs
Other amusement and recreation industries	809 jobs
Limited-service restaurants	658 jobs
Retail – Miscellaneous store retailers	620 jobs
Transit and ground passenger transportation	174 jobs
Retail – Food and beverage stores	140 jobs
Retail – Gasoline stores	120 jobs
Real estate	74 jobs
Employment services	54 jobs

H. GOVERNMENT REVENUE IMPACT

NHAs also support state and local governments with the generation of government revenue or tax revenue. As a result of BNHA’s attraction of visitors, operations, and regional investment, the NHA generates **\$38.2 million** in tax revenue annually (\$30.3 million in direct taxes) (See Table 9).

TABLE 9. STATE AND LOCAL TAX IMPACT

Description	Employee Compensation	Tax on Production and Imports	Households	Corporations
Dividends				\$24,000
Social Ins Tax – Employee Contribution	\$107,992			
Social Ins Tax – Employer Contribution	\$208,785			
Tax on Production and Imports: Sales Tax		\$14,705,475		
Tax on Production and Imports: Property Tax		\$14,213,824		
Tax on Production and Imports: Motor Vehicle License		\$309,690		
Tax on Production and Imports: Other Taxes		\$2,138,303		
Tax on Production and Imports: S/L NonTaxes		\$49,475		
Corporate Profits Tax				\$663,971
Personal Tax: Income Tax			\$4,780,840	
Personal Tax: NonTaxes			\$784,037	
Personal Tax: Motor Vehicle License			\$123,428	
Personal Tax: Property Taxes			\$53,704	
Personal Tax: Other Tax (Fish/Hunt)			\$26,444	
Total	\$316,777	\$31,416,767	\$5,768,454	\$688,072
Overall Impact: \$38,190,070				

I. VOLUNTEER IMPACT

It is estimated that volunteers at partner sites throughout the NHA generate more than **\$3.7 million annually** as a result of their volunteer services.⁷ Volunteers at BNHA have given their time to specific projects and initiatives of the NHA and related sites within the heritage area. These benefits are in addition to the **\$534.5 million annual impact** generated by BNHA.

⁷ Primary data about number of volunteers and hours volunteered was provided to Tripp Umbach by BNHA and its partner sites. A conservative assumption of \$23.56 per hour was used to calculate the value of volunteer services. This amount was calculated independently by the Points of Light Foundation.

CONCLUSION

NHAs are valuable economic contributors to the regions in which they operate. The partnerships they create and facilitate, and the efforts put forth to attract visitors, create economic development, and preserve the culture, history, and assets of their regions truly make a difference in local communities. An economic impact study conducted for the Baltimore National Heritage Area in 2012 demonstrated the heritage area's impact on the economy of the Baltimore, Maryland region, as the NHA had an economic impact of \$318.8 million. Today, BNHA continues to serve as a vital driver in the economy of the Baltimore City region, growing its impact and support of local jobs.



The Mount Clare Museum House is a grand mansion built in the 1760s and was once the center of a bustling 800-acre farm and industrial complex. The mansion is the oldest example of grand Georgian architecture in the city. Although well within the city limits today, the mansion still shares the stories of the Charles Carroll family, its plantation, and the enslaved laborers who tended its fields and worked in its iron works. Credit: David Guiney

2017 Economic Impact Study Findings

- **Baltimore National Heritage Area** generates **\$534.5 million** in economic impact, supports **6,110 jobs**, and generates **\$38.2 million** in tax revenue.

APPENDIX A: GLOSSARY OF TERMS

Study Year	Three Year Average of 2014, 2015, and 2016
Total Economic Impact	The total economic impact of an NHA includes the direct, indirect, and induced impact generated in the economy as a result of the institution's presence.
Direct Economic Impact	Direct impact includes items such as operational spending, spending by visitors to the NHA, and grantmaking/capital expenditures.
Indirect Economic Impact	For example, the economic impact of visitors to NHAs is the primary source of economic benefit to the regions in which NHAs operate. The direct consequence of travel expenditures become business receipts which in turn are used to pay wages and salaries and taxes.
Induced Economic Impact	Indirect impact, also known as the multiplier effect, includes the re-spending of dollars within the local economy by vendors and suppliers.
Direct Employment	For example, indirect impacts are related to local businesses spending part of their receipts on goods and services they require to serve customers, including investment in new equipment and structures. In turn, their suppliers must purchase certain items from others. This is the multiplier effect of economic activity attributed to visitor spending to NHAs. Each level of impact creates salaries, employment, and tax revenues.
Indirect Employment	Induced impact measures the effects of the changes in household income. For example, this impact includes the household spending of the wage and salary income generated by the visitors to the NHA. Induced effects refer to money recirculated through the economy as a result of household spending patterns generating further economic activity.
Multiplier Effect	Total number of jobs created in the economy as a result of operations, tourist spending and grantmaking activities.
Government Revenue Impact	Indirect employment is the additional jobs created as a result of the institution's economic impact. Local companies that provide goods and services to an institution increase their number of employees as purchasing increases, thus creating an employment multiplier.
	The multiplier effect is the additional economic impact created as a result of the NHA's direct economic impact. Local companies that provide goods and services to an institution increase their purchasing by creating a multiplier. Multipliers in this study are derived through IMPLAN.
	Government revenue that is collected by governmental units in addition to those paid directly by an institution, including taxes paid directly by employees of the institution, visitors to the institution and vendors who sell products to the institution.

APPENDIX B: RESEARCH METHODOLOGY

The study and analysis within utilizes recommendations from previous research to establish a procedure and baseline analysis of how NHAs impact the economy. The research protocol established utilizes existing NHA data collection processes to streamline efforts required by an NHA to complete the analysis.

The estimates made in this analysis are intentionally conservative as not to inflate the results. In fact, the estimates are conservative in that many types of visitor spending are not counted due to limitations of data collection and trip purpose. In most cases, visitor counts and trip purpose are not quantified with existing data sources. All sites utilized visitor counts prepared for the National Park Service, with a majority relying on partners and visitor counts from the primary attractions and visitor centers in their area.

A three-year average of visitor counts to the NHA region was utilized to provide a data-driven estimate of the annual number of visitors and accounts for spikes in visitor activity that can occur due to special circumstances. The final visitor impact estimates are substantial and demonstrate the importance of heritage tourism to a local economy. We must be aware that within economic analysis, the results are dependent on the data sources utilized to conduct the analysis.⁸ Day visitors were more likely to make the trip specifically to visit the heritage area attraction than visitors on overnight trips. The report identifies these limitations and the effect they have on the analysis. Collecting visitor data is a challenge to the existing resources of NHAs. Approximations of visit data for different facilities may not be completely consistent and vary considerably. As with all economic impact assessments, data utilized and estimates should be viewed as estimates based on the best information presently available.

Tripp Umbach based visitor and general tourist spending patterns on National Park Visitor Spending estimates established in 2015.⁹ The use of a secondary source provides the analysis with a research-based assumption that can be readily duplicated in future years for additional impact studies.

The bulk of economic activity supported by NHAs is accounted by the spending of visitors to NHAs. The type of visitor can be segmented into specific groups consistent with those identified in previous impact studies conducted for the NPS. The segments identified as NHA visitors were local day-trip, non-local day-trip, and overnight hotel/motel guests. This analysis utilizes the

⁸ In most cases, we lack a clear definition of which visitors to the destination should be considered “heritage area visitors” and there are questions about the accuracy and consistency of visitation statistics reported by some facilities. In a previous study, Stynes et. al. research identified that on average, 57% of visitors to an NHA reported that one or more of the attractions in the heritage area was the primary purpose of their trip.

⁹ Thomas, Catherine C. and Lynne Koontz. 2015 National Park Visitor Spending Effects: Economic Contributions to Local Communities, States, and the Nation. April 2016.

spending patterns of these three distinct NHA visitor segments. Visitor spending estimates rely on reported visitors to each NHA, followed by breaking down visits into segments with distinct spending patterns and applying spending averages based on existing spending trends.

ECONOMIC ANALYSIS PROCESS

Tripp Umbach's methodology for calculating NHA economic benefits may be utilized for other NHA sites. The intention to develop a protocol requiring minimal resources from NHAs was balanced with the development of a protocol that could be replicated with a basic understanding of economic impact input-output analysis, the data collection process, IMPLAN software, and the purchase of IMPLAN data specific to the geographic footprint of the NHA site. The data collection process primarily consists of data points aggregated by NHAs for their Annual Performance Measure Survey, completed annually for the National Park Service. Additional information regarding the use and purchase of IMPLAN3 software is available through MIG, Inc.¹⁰

It is helpful to think of an input-output model such as IMPLAN as an economic exercise, based on the collection of known data source variables then inputted into the model to simulate how a change in a sector of the economy affects the overall conditions of the economy. An input-output model can simulate the ripple effects of a given sector on the entire economy. The data collection process provides the direct spending effects of a particular sector attributable to the NHA. The model simulates the indirect effects and the induced effects. Summing the direct, indirect, and induced effects provides a reasonable estimate for the impact that a certain sector has on the entire economy.

For example, the economic impact of visitors to NHAs is the primary source of economic benefit to the regions which NHA operates. The **direct** consequence of travel expenditures become business receipts which in turn are used to pay wages and salaries and taxes.¹¹

Indirect or secondary benefits are attributed to local businesses spending part of their receipts on goods and services they require to serve customers, including investment in new equipment and structures. In turn, their suppliers must purchase certain items from others. This is the ripple effect of economic activity attributed to visitor spending to NHAs. Each level of impact creates salaries, employment, and tax revenues.

The other type of secondary benefit is **induced**. This benefit accounts for the consumption spending of the wage and salary income directly generated by the visitors to the NHA. Induced

¹⁰ The analysis requires the use of IMPLAN3 software and geographic data representative of the NHAs local and state region. Additional information on IMPLAN can be found at <http://implan.com>.

¹¹ The analysis does not quantify the direct costs such as visitors utilizing a recreation area that requires expenditures to repair or maintain.

effects refer to money recirculated through the spending patterns of households causing further local economic activity.

For each case study site, the “Top Employment Sectors” table illustrates the sectors with the largest number of jobs (includes direct, indirect, and induced jobs) supported by the NHA. Industries such as food services, hotels, and retail stores represent the largest number of jobs attributable to NHAs, while the ripple effect illustrates that jobs in real estate, healthcare, and other indirect industry sectors also support jobs indirectly attributable to the NHA.

The step-by-step process illustrates the economic impact modeling process.

Step One – Data Collection

The economic impact analysis is quantified from available data sources. NHA sites are asked to complete the data collection form developed by Tripp Umbach. All data points are described within the data collection form. These include visitation numbers, operating expenditures, the number of NHA employees, funding from NHAs specific to capital and construction activities, funding from NHAs for educational and support grants, plus any additional public or private matching dollars associated with the NHA grant. The annual amounts for the three most recent years are inputted and an average of those three years is calculated within the data collection form.

Step Two – Visitation inputs

Visitor expenditures are best viewed as the initial monetary activity that stimulates the production process and initiates realistic measurement of economic benefit or impact. Estimating visitors is perhaps the greatest challenge that NHAs face when developing annual counts. They depend primarily on the working relationships and partnerships that they share among partners, sites, and attractions within their areas to calculate visitor estimates.

Visitor economic impact typically requires three basic inputs: (1) the number and types of visitors, (2) visitor spending patterns, and (3) local economic ratios and multipliers. Multipliers for this analysis were obtained from IMPLAN databases, geographically focused for regions around heritage areas and the state economies.

Annual visitation averages are applied to three specific visitor segments approximated from national NPS visitor information data.¹² The segments identified within qualitative interviews with NHA site directors and stakeholders as the most likely visitors to NHAs are local day, non-

¹² Thomas, Catherine C. and Lynne Koontz. 2015 National Park Visitor Spending Effects: Economic Contributions to Local Communities, States, and the Nation. April 2016.

local day, and overnight visitors. The percentage of the overall visitors and their respective segments are represented in the following table (See Table 10).

TABLE 10. VISITOR SPENDING BY SEGMENT

Visitor Segment	% of Total Visitation	Average Daily Spending
Local Day	19%	\$41.52
Non-Local Day	41%	\$65.70
Overnight	40%	\$238.22

Each of the visitor segments spends varying amounts of money while visiting the NHA region. The spending estimates of these groups are then applied to spending averages from the 2015 National Park Service (NPS) spending study.¹³ The ratio of visitors and spending averages are then calculated to provide total spending estimates for each segment and for each specific type of spending associated with visitation and tourism (See Table 11).¹⁴

TABLE 11. SPENDING ESTIMATES BY VISITOR TYPE

Visitor Segment	Motel, hotel, B&B	Camping fees	Restaurants & Bars	Amusements	Groceries	Gas & Oil	Local transportation	Retail Purchases
Local day-trip spending allocation	0.0%	0.0%	31.6%	11.3%	15.0%	21.4%	1.6%	19.1%
Non-local day-trip spending allocation	0.0%	0.0%	28.2%	13.5%	10.1%	26.8%	2.6%	18.7%
Overnight spending allocation	42.7%	0.9%	24.2%	6.2%	4.4%	9.5%	2.7%	9.4%

Each spending category has an associated IMPLAN code for which it is related to within the IMPLAN software (See Table 12).

¹³ Ibid.

¹⁴ The analysis acknowledges the possibility of average spending variance through the utilization of average spending derived from consumer choices, estimates, and average visitor counts.

TABLE 12. SPENDING ESTIMATES BY SECTOR TYPE

IMPLAN Sector	Sector Name	Spending Type
400	Retail – Food and beverage stores	Groceries
402	Retail – Gasoline stores	Gas & Oil
406	Retail – Miscellaneous store retailers	Retail Purchases
412	Transit and ground passenger transportation	Local transportation
496	Other amusement and recreation industries	Amusements
499	Hotels and motels, including casino hotels	Motel, hotel, B&B
500	Other accommodations	Camping fees
501/502	Full-service restaurants/ Limited-service restaurants	Restaurants & bars

Once the spending amounts are calculated for each visitor segment and spending type, the next step is entering the spending amounts into the IMPLAN software. Each visitor segment, local day, non-local, and overnight visitors are created as a unique event within the IMPLAN model.

Economic impact measures attempt to estimate the likely losses in economic activity to the region in the absence of the heritage site. Should the heritage area and its partners not be available, it is assumed that local residents would spend the money on other local activities, while visitors from outside the region would not have made a trip to the region. Based on visitors sampled at heritage areas, approximately two-thirds of the associated economic impacts would be lost to the regions in the absence of the heritage attractions. The largest impacts result from overnight visitors staying in local lodging establishments. Local resident spending is included in the economic benefits measures, as this captures all economic activity associated with heritage area visits, including local and non-local visitors. Spending by local residents on visits to heritage areas does not represent new money to the region.¹⁵

Step Three – Operational Impacts

The operational impacts of NHAs are estimated from the operational expenditures of the NHA and total number of direct jobs employed by the NHA. Total jobs include full-time and part-time employees. Operational expenditures also may be calculated by entering the actual expenditures of the organization over the annual time period. Again, a three-year average is utilized to eliminate drastic variations (cuts or increases) to annual spending amounts. The employment or spending is entered into the IMPLAN model within Sector 493 – Museums, historical sites, zoos, and parks.

¹⁵ The economic effect of NHAs is an overall contribution to their regional economies. Though local visitor spending is not considered within a marginal analysis due to the fact that local residents have choices on where they spend their money within the region, in a contribution sense, residents of the local area do make choices to spend money in the local NHA region due to the NHAs mission fulfillment of preservation and education. In a contribution sense, this economic effect does benefit the regional economy.

The economic analysis completed for the operational impact analysis uses actual expenditures and NHA employment to drive estimates of employment, income, and tax revenue. Operational impacts refer to the day-to-day management, coordination, and activities executed by the NHA and its staff. It refers to the impact of “doing business” as a non-profit organization that promotes history, culture, and recreation in the region.

Step Four – Grant Funding and Support

NHA-funded grants to regional partners and associated revenue “matches” from regional organizations are tracked by each NHA site annually. Grant funding is calculated in the economic impact model as Sector 514 – Grantmaking, giving, and social advocacy. NHA-secured federal and state funding in the form of grantmaking to specific sites within the region primarily allows for the creation and development projects and initiatives that further add to the historic, cultural, and recreational offerings of the NHA region.

Step Five – Capital Specific Funding

Capital-specific funding is calculated separately. Funding for a specific construction or capital improvement project is assigned as a unique event within the IMPLAN software, categorized under IMPLAN code 58 - Construction of non-residential structures. Additional grant funding focused on capital and construction development also includes the educational mission of NHAs and the role that the staff has in serving as catalysts for economic development opportunities in the regions which they operate.

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