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# THE ECONOMIC IMPACT OF NATIONAL HERITAGE AREAS

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A CASE STUDY ANALYSIS OF THE  
MOTORCITIES NATIONAL HERITAGE AREA

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This report and accompanying research quantifies the economic benefit of select NHAs to their local and state communities — measuring job, revenue generation, and economic impacts through a protocol comprising interviews, IMPLAN analysis, and existing data sources. The protocol provides a benchmark for NHAs to complete future economic impact studies.

# THE ECONOMIC IMPACT OF NATIONAL HERITAGE AREAS:

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# MAP OF NATIONAL HERITAGE AREAS



## 2015 NHA STUDY SITES

- ERIE CANALWAY NATIONAL HERITAGE CORRIDOR
- THE JOURNEY THROUGH HALLOWED GROUND NATIONAL HERITAGE AREA
- SCHUYLKILL RIVER NATIONAL HERITAGE AREA
- UPPER HOUSATONIC VALLEY NATIONAL HERITAGE AREA
- MOTORCITIES NATIONAL HERITAGE AREA
- OHIO & ERIE CANALWAY NATIONAL HERITAGE AREA

## 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.

In 2012, Tripp Umbach completed a comprehensive economic impact study on six NHA sites in the Northeast Region that also included an extrapolation of the economic benefit of all 49 NHA sites on the national economy. The annual economic impact was estimated to be **\$12.9 billion**. The economic activity supports approximately **148,000 jobs** and generates **\$1.2 billion** annually in Federal taxes from sources such as employee compensation, proprietor income, indirect business tax, households, and corporations.<sup>1</sup> This study seeks to further quantify the economic impacts of individual NHAs based upon a case study approach.<sup>2,3</sup>

The results presented in the NHA economic impact study are generated on an annual basis. The economic impact in future years can either be higher or lower based on the visitor or tourist data, number of employees, operational expenditures, and capital expansion. The economic impact of the MotorCities National Heritage Area shows:

- **MotorCities National Heritage Area** (MI) generates **\$410.4 million** in economic impact, supports **4,560 jobs**, and generates **\$35.4 million** in tax revenue.

## NHAs SUPPORT REGIONAL ECONOMIES

NHAs DIRECTLY AND INDIRECTLY GENERATE **\$12.9 BILLION PER YEAR IN THE U.S.**



CREATE AND SUPPORT **148,000 JOBS**



**\$1.2 BILLION  
IN TAX REVENUE**



1. In the same 2012 study, Tripp Umbach calculated the impact of the 21 current NHAs in the Northeast Region of the United States. This study revealed that the NHAs in the Northeast Region generate an annual economic impact of \$5.4 billion, support more than 66,880 jobs, and generate \$602.7 million in local and state taxes.

2. Tripp Umbach. "The Economic Impact of National Heritage Areas: A Case Study Analysis of Six National Heritage Area Sites in the Northeast Region of the United States and Projections on the National Impact of All National Heritage Areas." [www.nps.gov/history/heritageareas/](http://www.nps.gov/history/heritageareas/).

3. Tripp Umbach. "The Economic and Community Impact of National Heritage Area Sites: Essex National Heritage Area, Oil Region National Heritage Area, Yuma Crossing National Heritage Area." [www.nps.gov/history/heritageareas/](http://www.nps.gov/history/heritageareas/).

## PROJECT OVERVIEW

In July 2015, Tripp Umbach was retained by the Heritage Development Partnership to measure the economic, employment, and government revenue impacts of operations and research of six NHAs. The following report highlights the economic impact of the **MotorCities National Heritage Area**. The goals of the NHA economic impact study included the following:

- To quantify the economic and employment impacts of NHA operations on their individual NHA service areas utilizing the methodology used in the previous studies.
- To demonstrate the broader community impact that NHAs have within their geographic areas of operation.

This study builds upon previous work completed to assess the economic benefit of NHAs to their regions, states, and local communities by measuring employment and revenue generation in addition to economic impacts. The research protocol included kickoff calls and progress reports with leadership from each NHA, interviews with key stakeholders within the six NHA regions, and data collection of existing NHA visitor estimates, operating budgets, and grant/capital awards information. The data collection process guided the economic impact analysis using IMPLAN.<sup>4</sup>

Each NHA profiled has distinct qualities and features, as noted in Table 1. The economic impact of an NHA will vary from site to site as each NHA is unique, operating in its local and state economy.

## 2015 NHA STUDY OVERVIEW

### Study Period:

Three-Year Average for 2012, 2013, 2014

### NHAs by Region:

Northeast – Erie Canalway NHC, The Journey Through Hallowed Ground NHA, Schuylkill River NHA, and Upper Housatonic Valley NHA

Midwest Region – **MotorCities NHA** and Ohio & Erie Canalway NHA

### NHA Geography:

Erie Canalway NHC – NY  
JTHG NHA – MD, PA, VA, WV  
Schuylkill River NHA – PA  
Upper Housatonic – CT and MA

### MotorCities – MI

Ohio & Erie Canalway – OH

### Methodology:

IMPLAN 2013 Data

4. This 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 the MIG, Inc. website: <http://implan.com/V4/Index.php>.

**TABLE 1: NHA CASE STUDY SITE PROFILES**

HERITAGE AREA	National Register Features <sup>5</sup>	National Historic Landmarks <sup>6</sup>	Area Population <sup>7</sup>
Erie Canalway	18,643	43	3,232,572
The Journey Through Hallowed Ground	27,007	15	1,413,038
Schuylkill River	23,943	45	1,854,081
Upper Housatonic	2,683	7	123,105
<b>MotorCities</b>	<b>17,268</b>	<b>14</b>	<b>5,255,454</b>
Ohio & Erie Canalway	7,177	4	1,034,899

The size and shape of an NHA also plays a key role in defining its personality. Localized or focused sites are concentrated. While this leads to partnerships with more defined, common goals, it can place limitations on available resources. Sites that span geographic areas (multiple counties) have the unique challenge of balancing where and how their resources are allocated. Finally, corridor sites that span multiple counties or states must serve as trusted collaborators to numerous partners spanning many varied interests. Despite all potential iterations of NHA types, the objectives of each NHA are connected by their Federal designation and mission.<sup>8</sup> Similarities do exist and the impact study attempts to illustrate this by identifying the three areas (visitor, operational, and grantmaking) where NHAs have the greatest economic value to their local regions and states.

An additional area of consideration that distinguishes NHAs is the partnerships that they engage in. NHA partnerships are encouraged through initiatives that increase educational and recreational opportunities for both local residents and tourists. Increased visitation by tourists and the increased economic activity are important objectives of heritage areas. The partnership approach creates the opportunity for a diverse range of associates to voice a range of visions and perspectives. Partners collaborate to shape a plan and implement a strategy that focuses on the distinct qualities that make their region special. Partnerships among NHAs and their collaborators play a key role in leveraging federal investment.

**TABLE 2: NHA PARTNERSHIPS (2014)**

HERITAGE AREA	Formal Partnerships	Informal Partnerships
Erie Canalway	53	115
The Journey Through Hallowed Ground	7	350
Schuylkill River	206	99
Upper Housatonic	4	95
<b>MotorCities</b>	<b>16</b>	<b>6</b>
Ohio & Erie Canalway	8	250

5. National Register of Historic Places. February 2014. Via National Heritage Area Statistics.

6. National Register of Historic Places. February 2014. Via National Heritage Area Statistics.

7. U.S. Census Bureau Blockgroup Data, 2010.

8. Additional information on NHA Federal designation and mission can be found at: <http://www.nps.gov/history/heritageareas/FAQ/>

The variety of activities and heavy partner involvement makes evaluation of the heritage programs fairly challenging. Utilizing baseline information about visitor characteristics, awareness of heritage areas, visitor use patterns, and evaluations of programs and facilities provides a foundation for data collection. Estimates of visitor spending and local economic impacts help to position the heritage areas within the regional tourism market and local economy.

Key economic impact findings presented within the summary include the total projected impact (FY 2015), including the economic, employment, and state and local government revenue impact of each individual NHA in their respective state. The economic analysis completed for the operational and grantmaking 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.<sup>9</sup> The visitor benefit analysis model clearly states an explicit relationship to overall visitor estimates reported by the NHAs 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 the NHA's organizational spending and staff. This refers to the day-to-day spending of the NHA to "get things done." Wages, rent, and professional fees paid by the NHA on an annual basis are included in this segment.

**Grantmaking and Capital Expenditures:** The economic value of NHA-secured federal and state funding within the region primarily circulates through the economy in the form of knowledge transfer and increased salary amounts for organizations receiving the specific grant funding. Additional grant funding focused on capital and construction development is quantified as well. This segment includes the educational aspect of NHAs and the role that the staff has in serving as catalysts for economic development opportunities in the regions in which they operate.

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 their communities. While these critical concepts that are not quantified within the context of this report, they are highlighted through qualitative data that was collected.

In order to gain a better understanding of the qualitative impact National Heritage Areas have on the regions they are located in, the Tripp Umbach project team conducted a series of kickoff calls and stakeholder interviews during the Fall of 2015 for each of the selected sites. Through phone interviews, Tripp Umbach representatives interviewed community leaders and representatives of organizations that have knowledge of the mission of each NHA. These stakeholders were asked a series of questions to determine the strengths of the NHA and the most important key messages regarding the NHA's economic impact.

During the course of these interviews, several themes emerged across the board for all sites. NHAs serve as catalysts in their communities, taking on projects that otherwise may be overlooked or be considered too difficult to tackle. By encouraging collaboration and working with their partners to see projects through, NHAs increase quality of life for individuals living in these communities and provide unique destinations for visitors coming to these areas.

In addition, primary data was collected via a standardized data collection form. Data collected included: visitor data (primary data from actual reported visitor counts), operational expenditure data, capital expenditure data, and grantmaking activities. From the primary data in concert with qualitative information stemming from kickoff calls and stakeholder interviews, the economic and community impacts were calculated. The following provides the regional assets of each of the selected sites as described by the stakeholders in addition to the economic impact breakout for each specific NHA.

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9. The analysis of visitor spending includes local spending estimates.

## MOTORCITIES NHA

### A. OVERVIEW OF MOTORCITIES

The automotive industry has been one of the most powerful, innovative, and prosperous industries in American history, as it created millions of jobs, forever changed the way people traveled, and generated a strong working class. The Greater Central and Southeast regions of Michigan were home to the creation of the automotive boom. Today, the automotive industry and its rich cultural significance are alive and well in Detroit and surrounding communities due to the MotorCities National Heritage Area (MCNHA). Designated as a NHA in 1998, MCNHA serves as a preserver of the automotive industry; it connects the sites, museums, and communities that tell the history of the automotive industry across 10,000 square miles. MCNHA has been able to spur collaboration and create a cohesive and authentic automotive heritage experience in a way that no other single organization has been able to do. Through strong collaboration, programming and events, and education, MCNHA promotes and generates lasting appreciation for the history and heritage of one of the nation's most important industries, while also spurring tourism and community development in the region.

The synergies that MCNHA has created among the various organizations and sites within the heritage area have been vital to the success of MCNHA's efforts. One way that MCNHA has been able to create alignment and cohesion among sites within the heritage area is through programs and events. The Lunch and Learn Series, for example, has created connections among heritage organizations. Periodically, MCNHA hosts a lunch series where representatives from sites come together to listen to presentations and trainings on how they can individually and collectively work to increase their capacity to be preservers and educators of automotive history in the region. Another program that demonstrates the way that MCNHA serves as an umbrella organization that brings together various entities and sites to tell a cohesive story is the Wayside signage program. MCNHA has installed 250 outdoor exhibits in communities throughout central and southeastern Michigan which commemorate Michigan's automotive heritage. The Wayside sign program attracts both locals and visitors alike to come to better understand the heritage of the region.

### “Spotlight” Project – The Ford Piquette Avenue Plant

*The Ford Piquette Avenue plant is Henry Ford's first factory built for the Ford Motor Company. While only operating as a Ford plant for a short period of time, the contributions from this facility were transformative. Most notable is the iconic Ford Model T, the car that “put the world on wheels”.*

*When the plant eventually became dormant, MotorCities NHA worked with local community volunteers to reclaim the property and transform the Ford Piquette Avenue plant into a regional asset and tourist attraction. Since 2007, MCNHA has provided grants to fund numerous projects, including façade restoration. Over \$1,500,000 has been leveraged by MCNHA and other public and private investors to open the site to 15,000 visitors annually. Investment in the Ford Piquette Plant has spurred significant additional economic investment in the surrounding area.*



The grant making efforts of MCNHA have also played a significant role in creating strong sites within the heritage area. The Challenge Grant Program<sup>10</sup> provides organizations within the heritage corridor the opportunity to receive funding for projects and initiatives that promote the history of the automotive and labor industries, provide education, spur tourism, and generate community development in the region. Thanks to the grants provided by MCNHA, including over one million dollars in funding to over 100 organizations between 2002 and 2014, sites within the heritage area have had the ability to develop programs and projects that benefit not only their individual organizations but the heritage area as a whole.

Through the development of sites and organizations within the heritage area and the creation a cohesive automotive heritage community, the region has grown as a tourist destination. The sites within the heritage area alone bring millions of visitors per year, while the events under the umbrella of Autopalooza<sup>11</sup> particularly serve as big tourist draws to the region. Every summer, Autopalooza attracts millions of tourists to the Central and Southeast Michigan region and brings significant revenue to businesses throughout the region. Autopalooza serves as a prime example of MCNHA's activities and initiatives as it brings the rich history of the automotive industry to life, draws visitors to the region, and educates tourists and locals on the importance of the automotive industry. The MCNHA has partnered with tourist organizations in the region, including Pure Michigan and the Detroit Visitors & Convention Bureau, to provide increased visibility to the heritage area and promotion of its programs and events.

MCNHA focuses on preserving the history of the automotive industry in Detroit and surrounding communities, but is also looking toward the future of the industry. MCNHA has given attention to demonstrating to young people that the auto industry is not just about the past, but is also an important part of their economic present and future. Through factory tours and classroom presentations, MCNHA has helped young individuals in the region make a concrete connection to the importance of science, technology, engineering, and math (STEM) education. While the MCNHA has been able to create a heritage area that allows individuals to know the history of the automotive industry, through their educational programs, they are also helping to promote the future growth of the industry for years to come.

The automotive industry is one of the most innovative and prosperous industries in the nation's history. In the early 20th century, the creation of the automotive industry forever changed the way people travel. It is important for individuals to understand the significance of this industry, especially as it continues to play an important role in the nation's economy today. MCNHA provides individuals with the opportunity to come to learn about the automotive industry by connecting organizations and sites within the greater Detroit region to create a cohesive and comprehensive automotive heritage experience. By serving as an umbrella organization for a number of sites and entities within the heritage area, MCNHA has been able to provide programming, events, funding, and education that makes for a strong automotive heritage site. As MCNHA moves forward, the heritage site will continue to market and increase the visibility of the region and grow its partnerships to attract tourism, promote development, and allow a greater number of people to understand more about the automotive industry of the past, present, and future.

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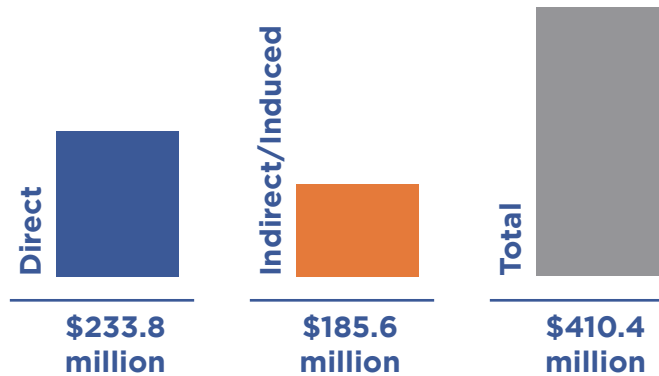
10. The MotorCities National Heritage Area Challenge Grant Program provides up to 20 percent of total project costs to the successful applicant organizations.

11. Autopalooza is an annual summer event across Metro Detroit that features automotive cruises, shows, and races while preserving the heritage of the area. The event is sponsored by The Detroit Metro Convention & Visitors Bureau, Pure Michigan, and the MotorCities National Heritage Area. [www.autopalooza.org](http://www.autopalooza.org).

## B. OVERALL ECONOMIC IMPACT

The economic impact of MCNHA is approximately **\$410.4 million annually**. This economic impact consists of four main components: tourism (\$408.6 million), operations (\$1.7 million), grantmaking (\$53,678), and capital projects (\$88,423).<sup>12</sup> See Figure 1.

**FIGURE 1: OVERALL ECONOMIC IMPACT OF MOTORCITIES NHA**



**TABLE 3: MOTORCITIES NATIONAL HERITAGE AREA - OVERALL ECONOMIC IMPACT**

	Direct Effect	Indirect Effect	Induced Effect	Total Effect
<b>Economic Impact</b>	<b>\$228,724,017</b>	<b>\$83,227,124</b>	<b>\$98,500,082</b>	<b>\$410,451,223</b>
<i>Tourism</i>	\$227,561,978	\$82,842,128	\$98,170,918	\$408,575,024
<i>Operations</i>	\$1,113,191	\$366,666	\$254,242	\$1,734,099
<i>Grantmaking</i>	\$0	\$0	\$53,678	\$53,678
<i>Capital Projects</i>	\$48,879	\$18,330	\$21,245	\$88,423

The table below shows the top 10 sectors in the NHA region impacted by MCHNA's activities and visitors (See Table 4).

**TABLE 4: MOTORCITIES NATIONAL HERITAGE AREA TOP 10 ECONOMIC IMPACT SECTORS**

Industry	Economic Output
<b>Hotels and motels, including casino hotels</b>	\$99,320,778
<b>Limited-service restaurants</b>	\$74,895,620
<b>Museums, historical sites, zoos, and parks</b>	\$26,092,320
<b>Real estate</b>	\$17,527,380
<b>Retail - Miscellaneous store retailers</b>	\$16,767,051
<b>Owner-occupied dwellings</b>	\$12,484,728
<b>Transit and ground passenger transportation</b>	\$9,362,803
<b>Wholesale trade</b>	\$7,889,522
<b>Insurance carriers</b>	\$7,885,799
<b>Retail - Food and beverage stores</b>	\$7,136,777

<sup>12</sup> Data used to calculate impacts was based on three-year averages - 2012, 2013, and 2014.

### 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 are calculated by MCNHA’s regional partners. The three-year average total of visitors and tourists to the MCNHA region was approximately 5,742,130 visitors. These visitors spend money in the region, creating a positive ripple effect on the economic structure. Based on the annual average number of visitors to the NHA region and its partner sites, more than \$408.6 million in economic benefit was supported annually within the region and state.

**TABLE 5: MOTORCITIES NATIONAL HERITAGE AREA  
ANNUAL ECONOMIC IMPACT OF TOURISM AND VISITATION**

Visitor Segment	Direct Effect	Indirect Effect	Induced Effect	Induced Effect	Total Effect
<b>Local Day</b>	19%	\$9,520,431	\$3,579,417	\$4,383,085	\$17,482,933
<b>Non-Local Day</b>	41%	\$31,504,741	\$12,246,312	\$14,590,677	\$58,341,730
<b>Overnight</b>	40%	\$186,536,806	\$67,016,400	\$79,197,155	\$332,750,361
<b>Total</b>	100%	\$227,561,978	\$82,842,128	\$98,170,918	\$408,575,024

The economic spending analysis demonstrates within the region, visitors traveling from outside the region and staying overnight represent the largest economic benefit to the economy of the local region and the state. Although overnight visitors only comprise an estimated 41% of NHA visitation, overnight visitors account for approximately 80% of the economic benefit of NHAs. This is primarily driven by the increased amount of fresh dollars from outside the region spent on lodging, accommodations, restaurants, transportation, etc.

### D. OPERATIONAL IMPACT

In addition to attracting visitors and promoting tourism in the region, the analysis quantifies the economic benefit of MCNHA through its operating activities. This impact is represented by the spending of the organizations and the employees it supports. Although not as great as the impact of tourism and visitation on the regional economy, the intellectual benefits and resources of NHA staff serve as independent catalysts for their regional economy.

**TABLE 6: MOTORCITIES NATIONAL HERITAGE AREA  
ANNUAL ECONOMIC IMPACT OF OPERATIONS**

	Direct Effect	Indirect Effect	Induced Effect	Total Effect
<b>Operations</b>	\$1,113,191	\$366,666	\$254,242	\$1,734,099

## E. GRANTMAKING

MCNHA is active in the region with its partners through grantmaking efforts that support projects and programs that are aligned with the educational, cultural, promotional and economic development missions of NHAs. Similar to how tourism and operations support economic activity within the region, grantmaking provides an infusion of funds to assist with the development of the NHA. For the purposes of this study, grants are quantified as increased salary provided by the NHA within their region.

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**TABLE 7: MOTORCITIES NATIONAL HERITAGE AREA  
ANNUAL ECONOMIC IMPACT OF GRANTMAKING**

	Direct Effect	Indirect Effect	Induced Effect	Total Effect
<b>Grantmaking</b>	\$0	\$0	\$387,653	\$387,653

The grantmaking activities of MCNHA attract other organizations and funders in the region to also 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 MCNHA, the grantmaking of MCNHA allowed for leveraged funding for projects and initiatives, contributing an additional \$268,807 in economic impact.

## F. CAPITAL PROJECTS

Capital investment of the MCNHA supports the creation of projects and sites within the NHA that allow for the further development of opportunities and mission expansion of the NHA. Similar to how tourism and operations support economic activity within the region, capital expenditures provide an infusion of funds to assist with the development of buildings, sites, and projects within the NHA.

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**TABLE 8: MOTORCITIES NATIONAL HERITAGE AREA  
ANNUAL ECONOMIC IMPACT OF CAPITAL PROJECTS**

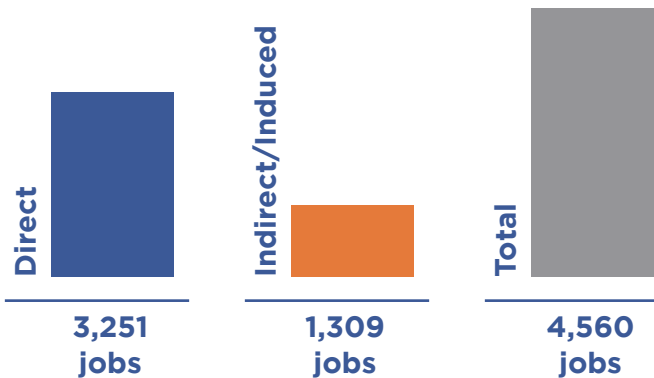
	Direct Effect	Indirect Effect	Induced Effect	Total Effect
<b>Capital Projects</b>	\$48,849	\$18,330	\$21,245	\$88,423

## G. OVERALL EMPLOYMENT IMPACT

MCNHA supports a substantial number of jobs in the region. The total employment impact is **4,560 jobs** (3,251 direct jobs and 1,309 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 in the region 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.

**FIGURE 2: OVERALL EMPLOYMENT IMPACT OF MOTORCITIES NHA**



**TABLE 9: MOTORCITIES NATIONAL HERITAGE AREA - OVERALL EMPLOYMENT IMPACT**

	Direct Effect	Indirect Effect	Induced Effect	Total Effect
<b>Employment Impact</b>	<b>4,588 jobs</b>	<b>615 jobs</b>	<b>951 jobs</b>	<b>6,154 jobs</b>
<i>Tourism</i>	3,246 jobs	546 jobs	758 jobs	4,550 jobs
<i>Operations</i>	4 jobs	3 jobs	2 jobs	9 jobs
<i>Capital Projects</i>	1 job	0 jobs	0 jobs	1 job

*\*Grantmaking did not add to the overall employment impact*

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

**TABLE 10: MOTORCITIES NATIONAL HERITAGE AREA TOP 10 EMPLOYMENT IMPACT SECTORS**

Industry	Jobs
Limited-service restaurants	1,403 jobs
Hotel and motel, including casino hotels	933 jobs
Retail - Miscellaneous store retailers	377 jobs
Museums, historical sites, zoos, and parks	313 jobs
Transit and ground passenger transportation	141 jobs
Retail - Food and beverage stores	106 jobs
Real estate	104 jobs
Retail - Gasoline stores	66 jobs
Employment services	52 jobs
Full-service restaurants	47 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 MCNHA's attraction of visitors, operations, and capital activity, the NHA generates over **\$35.4 million** in tax revenue annually (\$25.2 million in direct taxes).

**TABLE 11: MOTORCITIES NATIONAL HERITAGE AREA - STATE AND LOCAL TAX IMPACT**

Description	Employee Compensation	Tax on Production and Imports	Households	Corporations
Dividends				\$55,931
<i>Socials In Tax - Employee Contribution</i>	\$89,137			
<i>Social Ins Tax - Employer Contribution</i>	\$172,331			
<i>Tax on Production and Imports: Sales Tax</i>		\$14,797,916		
<i>Tax on Production and Imports: Property Tax</i>		\$14,468,752		
<i>Tax on Production and Imports: Motor Vehicle License</i>		\$393,798		
<i>Tax on Production and Imports: Severance Tax</i>		\$62,053		
<i>Tax on Production and Imports: Other Taxes</i>		\$894,553		
<i>Tax on Production and Imports: S/L NonTaxes</i>		\$255,575		
<i>Corporate Profits Tax</i>				\$409,203
<i>Personal Tax: Income Tax</i>			\$2,769,637	
<i>Personal Tax: NonTaxes</i>			\$638,041	
<i>Personal Tax: Motor Vehicle License</i>			\$199,056	
<i>Personal Tax: Property Taxes</i>			\$69,012	
<i>Personal Tax: Other Tax (Fish/Hunt)</i>			\$71,753	
<b>Total</b>	<b>\$261,467</b>	<b>\$30,872,348</b>	<b>\$3,747,499</b>	<b>\$494,224</b>

**OVERALL IMPACT: \$35,375,538**

## I. VOLUNTEER IMPACT

It is estimated that volunteers at sites throughout MCNHA generate more than **\$49,000 annually** as a result of their volunteer services.<sup>13</sup> MCNHA volunteers give their time to the annual Autopalooza, featuring 16 different events focused on the automotive and labor industry. These benefits are in addition to the \$419.4 million annual impact generated by the NHA.

13. Primary data about number of volunteers and hours volunteered was provided to Tripp Umbach by the Schuylkill River NHA. A conservative assumption of \$22.14 per hour was used to calculate the value of volunteer services. This amount was calculated independently by the Points of Light Foundation.

## CONCLUSION

The case studies presented demonstrate that NHAs are valuable economic contributors to the local regions and states where they operate. The partnerships they create and facilitate and the efforts put forth by each organization truly make a difference in their communities. The MotorCities National Heritage Area serves as a vital part of the local and regional economy contributing millions of dollars annually and sustaining jobs.

- **MotorCities National Heritage Area** (MI) generates **\$410.4 million** in economic impact, supports **4,560 jobs**, and generates **\$35.4 million** in tax revenue.

## APPENDIX A: GLOSSARY OF TERMS

<b>Study Year</b>	Three Year Average of 2012, 2013, and 2014.
<b>Total Economic Impact</b>	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.
<b>Direct Economic Impact</b>	<p>Direct impact includes items such as operational spending, spending by visitors to the NHA, and grantmaking/capital expenditures.</p> <p>For example, the economic impact of visitors to NHAs is the primary source of economic benefit to the regions in which NHA operates. The direct consequence of travel expenditures become business receipts which in turn are used to pay wages and salaries and taxes.</p>
<b>Indirect Economic Impact</b>	<p>Indirect impact, also known as the multiplier effect, includes the re-spending of dollars within the local economy by vendors and suppliers.</p> <p>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.</p>
<b>Induced Economic Impact</b>	Induced impact measure 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.
<b>Direct Employment</b>	Total number of jobs created in the economy as a result of operations, tourist spending and grantmaking activities.
<b>Indirect Employment</b>	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.
<b>Multiplier Effect</b>	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.
<b>Government Revenue Impact</b>	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 to not 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 regions 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. 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 2013.<sup>14</sup> 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. No inflation adjustments were made to the 2013 NPS spending amounts.

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 segments 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 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.

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14. 2013 National Park Visitor Spending Effects, Economic Contributions to Local Communities, States, and the Nation. July 2014.

## 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.<sup>15</sup>

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.<sup>16</sup>

**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 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.

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15. 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 the MIG, Inc. website: <http://implan.com/V4/Index.php>.

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

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.<sup>17</sup> The segments identified within qualitative interviews with NHA site directors and stakeholders as the most likely visitors to NHAs are local day, non-local day, and overnight visitors. The percentage of the overall visitors and their respective segments are represented in Table 12: Visitor Spending by Segment.

**TABLE 12: VISITOR SPENDING BY SEGMENT**

<b>Visitor Segment</b>	<b>% of Total Visitation*</b>	<b>Average Daily Spending</b>
<b>Local Day<sup>18</sup></b>	19%	\$40.72
<b>Non-Local Day<sup>19</sup></b>	41%	\$64.79
<b>Overnight<sup>20</sup></b>	40%	\$276.66

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 2013 National Park Service (NPS) economic impact study.<sup>21</sup> 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.<sup>22</sup>

17. 2013 National Park Visitor Spending Effects, Economic Contributions to Local Communities, States, and the Nation. July 2014.

18. Local day users are defined as those visitors living within the geographic region of the NHA and visiting a heritage attraction, site, or facility for the day. The definition is consistent with those used in the National Park Service Natural Resource Report.

19. Non-local day visitors are defined as those visitors living outside the geographic region of the NHA and visiting a heritage attraction, site, or facility for the day.

20. Overnight visitors are defined as those visitors living outside the geographic region of the NHA and visiting a heritage attraction, site, or facility for multiple days, including an overnight stay.

21. 2013 National Park Visitor Spending Effects, Economic Contributions to Local Communities, States, and the Nation. July 2014.

22. 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 13: SPENDING ESTIMATES BY VISITOR TYPE**

	Motel, hotel, B&B	Camping fees	Restaurants & bars	Amusements	Groceries	Gas & oil	Local transportation	Retail Purchases
<b>Local day-trip spending allocation</b>	0.0%	0.0%	31.9%	11.2%	14.9%	21.5%	1.4%	19.2%
<b>Non-local day-trip spending allocation</b>	0.0%	0.0%	28.4%	13.5%	10.0%	27.0%	2.4%	18.8%
<b>Overnight spending allocation</b>	43.0%	0.1%	22.6%	7.5%	5.5%	8.2%	3.3%	9.8%

Each spending category has an associated IMPLAN code for which it is related to within the IMPLAN software. The spending category and IMPLAN codes are detailed in table 14: Spending Estimates by Sector Type.

**TABLE 14: 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
493	Museums, historical sites, zoos, and parks	Amusements
499	Hotels and motels, including casino hotels	Motel, hotel, B&B
500	Other lodging accommodations	Camping fees
502	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.<sup>23</sup>

23. 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 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.

### ***Step Three - Operational Impacts***

The operational impacts of NHAs are estimated from the total number of direct jobs employed by the NHA. Total jobs include full-time and part-time employees. Operational expenditures may also 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 514, Grantmaking, Giving, and Social Advocacy Organization.

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 in the region. Business refers to a number of activities for each NHA, but for purposes of this analysis, operational impacts are derived from the number of paid employees working for the NHA.

### ***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 5001 employee compensation. The assumption being that grant support ultimately supports the salaries of the organization(s) receiving grant funding. The economic value of NHA-developed federal and state funding within the region primarily circulates through the economy in the form of knowledge transfer and increased salary amounts for organizations receiving the grant funding.

### ***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. For example, if an NHA facilitates the award of a \$25,000 federally sponsored grant to develop a section of biking trail, this economic benefit to the region is captured within the analysis by capturing the estimated increase in salaries and wages to facilitate award of the grant within the NHA and within the receiving organization. Further, if a portion of the award was attributable to specific capital improvements or construction, this was attributed accordingly within the input-output model to account for related construction expenditures and jobs. Grants awarded were included in the model based on year effective when the year that the grant was awarded was not the same.

## APPENDIX C: RESEARCH PROTOCOL

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 six sites chosen for this analysis of NHAs will hopefully be the trailblazers for additional sites.

Within each case study, the analysis attempts to focus on a specific event, or “Spotlight Project,” that best illustrates the economic value NHAs provide to the region. The estimates made in this analysis are intentionally conservative as to not 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 six 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.

Based on measures of use patterns from visitor surveys, we made some adjustments for potential double-counting and under-reporting of visitors. The research team determined that the best method to eliminate double- or under-counting was to utilize a three-year average of visitor counts to the NHA regions. This provides a data-driven estimate of the annual number of visitors, and accounts for annual spikes in visitor activity. 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.<sup>24</sup> 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.<sup>25</sup> Finally, the report provides recommendations based on the current protocol as a means to seek to improve future analysis and development.<sup>26</sup>

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24. In most cases, we lack a clear definition of which visitors to the destination region should be considered “heritage area visitors” and there are questions about the accuracy and consistency of visit 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.

25. In previous NHA economic impact studies completed in 2004 and 2005, Stynes et al. determined that NHAs could utilize a ratio that approximates that 25,000 visitors spend \$2.5 million in the local region. The direct impacts of this spending are \$780,000 in wages and salaries, \$1.2 million in value added, and 51 jobs. Tripp Umbach utilized these projections as a gauge to determine the relative similarities between the TU IMPLAN models and the MGM spending model.

26. 2013 National Park Visitor Spending Effects, Economic Contributions to Local Communities, States, and the Nation. July 2014.

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