

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



WHEELING  
NATIONAL HERITAGE AREA

JUNE 2017

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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 Wheeling National Heritage Area (WNHA). Findings from the 2012 study determined that WNHA had the following economic impact on the Wheeling region:

### 2012 Economic Impact Study Findings<sup>1</sup>

- **Wheeling National Heritage Area generated \$56.6 million in economic impact, supported 784 jobs, and generated \$3.8 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 WNHA on the Wheeling, West Virginia region.<sup>2</sup>

The current economic impact of Wheeling NHA shows that the heritage area's efforts to invest in capital projects, partner with local organizations, boost tourism, and increase quality of life in communities since the 2012 study has generated additional economic impact in the Wheeling region.

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<sup>1</sup> Fiscal Year 2009, 2010, and 2011 data from WNHA was included in the 2012 analysis.

<sup>2</sup> Ohio County is analyzed in the 2017 study to reflect initiatives in the broader Wheeling region.

2017 Economic Impact Study Findings<sup>3</sup>

- **Wheeling National Heritage Area** generates **\$86.6 million** in economic impact, supports **1,109 jobs**, and generates **\$6.4 million** in tax revenue.

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# NHAs SUPPORT REGIONAL ECONOMIES

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WHEELING NATIONAL HERITAGE AREA  
GENERATES **\$86.6 MILLION** IN ECONOMIC IMPACT



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SUPPORTS **1,109** JOBS



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GENERATES  
**\$6.4 MILLION**  
IN TAX REVENUE.

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<sup>3</sup> Fiscal Year 2014, 2015, and 2016 data from WNHA was included in the 2017 analysis.

## 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 Wheeling National Heritage Area. The goals of the economic impact study include the following:

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

This report builds upon the previous impact study completed to assess the economic benefits of WNHA. 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.<sup>4</sup>

Key economic impact findings presented within the summary include the economic, employment, and state and local government revenue impact of WNHA in the Wheeling 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.<sup>5</sup> The visitor benefit analysis model clearly states an explicit relationship to overall visitor estimates reported by WNHA 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 WNHA's organizational spending and staff. This refers to the day-to-day spending of the NHA; wages, rent, and professional fees paid by WNHA on an annual basis are included in this segment.

**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

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<sup>4</sup> 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>.

<sup>5</sup> The analysis of visitor spending includes local spending estimates.

development 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.

## WHEELING NHA

### A. OVERVIEW OF WHEELING NATIONAL HERITAGE AREA



The Wheeling National Heritage Area (WNHA) is dedicated to recognizing, communicating, and preserving the heritage of Wheeling, West Virginia. WNHA brings public awareness to the numerous resources of Wheeling as a means to spur sustainable economic and community development. The heritage area has served as a catalyst for preservation and revitalization since its designation by Congress in 2000. By investing in projects and programs that help to preserve and develop historic and cultural resources in communities throughout the heritage area, WNHA has been able to generate economic impact and community development, while at the same time attracting visitors and enhancing tourism in the Wheeling region.

Downtown Wheeling has experienced community and economic development due to the support of WNHA. A significant component of the work of the heritage area is in providing and facilitating grants and capital funding to support projects that restore historic buildings, invest in communities, and ensure cultural and historic programming that promotes the heritage of the Wheeling region. Due to the support of WNHA, a number of buildings in downtown Wheeling that may otherwise be vacant or demolished have been restored and now serve as community assets.

Key revitalization projects that have occurred in large part due to the work and support of WNHA since 2000 include the Capitol Theater, the Artisan Center, Heritage Port, and Wheeling Stamping. These projects demonstrate successful redevelopment in the Wheeling region. WNHA continues to provide support to a number of capital

#### “SPOTLIGHT” PROJECT – CAPITOL THEATRE PARTNERSHIP

Built in 1928, the Capitol Theatre played a vital role in shaping Wheeling’s economy and image. It was home of the legendary Jamboree USA broadcast and the Wheeling Symphony Orchestra. In May of 2007, the historic Capitol Theatre was closed. Recognizing the importance of this iconic venue, Wheeling National Heritage Area Corporation, along with other partners, developed a plan restore and re-open the theatre.

The theatre was purchased by the Wheeling Convention and Visitors Bureau in 2009, and since then, WNHA has been a key partner in theatre revitalization, investing in projects such as pre-development assessment work, property enhancements, and branding initiatives.

Today, the theatre is a positive economic generator for the Wheeling area. In 2016, 57,000 people attended shows at the theater. The Capitol Theatre is a positive component in overall efforts to revitalize the Wheeling region and serves as an important example of multiple agencies working together for the common good of the community.

## WNHA – QUICK FACTS

- NPS Northeast Region
- Sites throughout Wheeling, WV
- 12 square miles

projects and programs throughout Wheeling. Recent funding has gone toward façade work to the Capitol Theatre and interior/exterior repairs to the Artisan Center.

WNHA recognizes that projects that spur revitalization have a major impact in building a sense of place and help expand opportunities for

business, recreation, entertainment, and residential offerings. Preservation and promotion of Wheeling's assets by the heritage area have attracted tourists to the region, allowing for economic growth and increased quality of life in communities. In addition to development and renovation projects, WNHA supports a number of cultural, historic, and recreational programs throughout Wheeling, including heritage festivals and events, that bring tourism to Wheeling. With growth in tourism, WNHA has partnered with other tourist sites in the region, such as Oglebay Resort and Wheeling Island Hotel and Casino, as a means to further enhance the visitor experience and draw more visitors to downtown Wheeling.

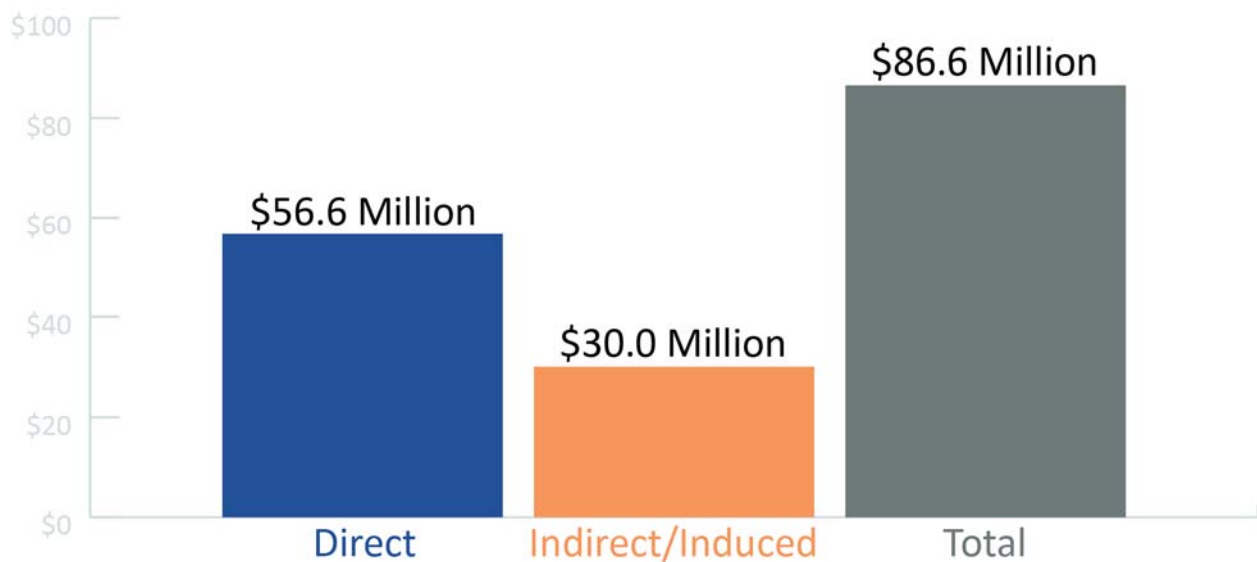
WNHA's investment in Wheeling can be seen in the number of redevelopment projects that have occurred for close to two decades due to the presence and initiatives of the heritage area. Since its designation, WNHA has been committed to revitalizing Wheeling with the goal of generating economic and community impact. Redevelopment projects have had an important role in not only increasing quality of life in the region, but celebrating the rich history of Wheeling and attracting visitors to experience all the offerings of the heritage area. As WNHA continues to support and lead heritage development efforts and programs, the heritage area will look to further its impact and sustainable investment in Wheeling.



## B. OVERALL ECONOMIC IMPACT

The economic impact of Wheeling National Heritage Area is **\$86.6 million**. This economic impact consists of four components: tourism (\$84.5 million), operations of the NHA (\$1.8 million), capital project funding (\$210,000), and grantmaking (\$69,000). (See Figure 1 and Table 1).<sup>6</sup>

**FIGURE 1. OVERALL ECONOMIC IMPACT**



**TABLE 1. OVERALL ECONOMIC IMPACT**

	Direct Effect	Indirect Effect	Induced Effect	Total Effect
<b>Economic Impact</b>	<b>\$56,545,431</b>	<b>\$16,330,259</b>	<b>\$13,693,365</b>	<b>\$86,569,055</b>
<i>Tourism</i>	<i>\$55,195,650</i>	<i>\$15,832,694</i>	<i>\$13,467,282</i>	<i>\$84,495,626</i>
<i>Operations</i>	<i>\$1,163,307</i>	<i>\$455,805</i>	<i>\$174,657</i>	<i>\$1,793,769</i>
<i>Capital Projects</i>	<i>\$142,068</i>	<i>\$33,068</i>	<i>\$35,282</i>	<i>\$210,418</i>
<i>Grantmaking</i>	<i>\$44,406</i>	<i>\$8,692</i>	<i>\$16,143</i>	<i>\$69,241</i>

<sup>6</sup> 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 WNHA’s activities and visitors (See Table 2).

**TABLE 2. TOP 10 ECONOMIC IMPACT SECTORS**

Industry	Economic Output
Hotels and motels, including casino hotels	\$22,610,312
Full-service restaurants	\$13,269,216
Other amusement and recreation industries	\$5,967,139
Limited-service restaurants	\$5,784,706
Retail – Miscellaneous store retailers	\$4,012,917
Real estate	\$2,082,025
Owner-occupied dwellings	\$1,920,872
Transit and ground passenger transportation	\$1,895,065
Wholesale trade	\$1,878,258
Retail – Food and beverage stores	\$1,534,901

*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 are calculated by WNHA’s regional partners. The three-year average total of visitors and tourists to the NHA region is over 550,00 visitors.<sup>7</sup> These visitors spend money in the region, creating a positive ripple effect on the economic structure. WNHA’s efforts in heritage site restoration and community development has played a large role in increasing tourism since the 2012 study.<sup>8</sup> Based on the annual average number of visitors to the NHA region and its partner sites, \$84.5 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%	\$2,562,978	\$640,038	\$608,757	\$3,811,772
Non-Local Day	41%	\$8,661,078	\$2,191,327	\$2,085,300	\$12,937,705
Overnight	40%	\$43,971,594	\$13,001,329	\$10,773,225	\$67,746,149
<b>Total</b>	<b>100%</b>	<b>\$55,195,650</b>	<b>\$15,832,694</b>	<b>\$13,467,282</b>	<b>\$84,495,626</b>

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

<sup>7</sup> Annual tourism projections were utilized from 2014, 2015, and 2016.

<sup>8</sup> The average number of visitors included in the 2012 study was 429,151.

visitation, overnight visitors account for close to 80 percent of the economic benefit of WNHA. This is primarily driven by the increased amount of fresh dollars from outside the state 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 WNHA through its operating activities. This impact is represented by the spending of WNHA and the employees it supports (See Table 4).

**TABLE 4. ANNUAL ECONOMIC IMPACT OF OPERATIONS**

	Direct Effect	Indirect Effect	Induced Effect	Total Effect
<b>Operations</b>	\$1,163,307	\$455,805	\$174,657	<b>\$1,793,769</b>

#### E. CAPITAL PROJECTS

Capital investment of WNHA supports the creation of projects and sites within the NHA that allow for the further development and revitalization throughout the Wheeling region. Similar to how tourism 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 5).

**TABLE 5. ANNUAL ECONOMIC IMPACT OF CAPITAL PROJECTS**

	Direct Effect	Indirect Effect	Induced Effect	Total Effect
<b>Capital Projects</b>	\$142,068	\$33,068	\$35,282	<b>\$210,418</b>

#### F. GRANTMAKING

WNHA 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 the heritage area. Similar to how tourism, operations, and capital project funding support economic activity within the region, grantmaking provides an infusion of funds to assist with the development of the heritage area (See Table 6).

**TABLE 6. ANNUAL ECONOMIC IMPACT OF GRANTMAKING**

	Direct Effect	Indirect Effect	Induced Effect	Total Effect
<b>Grantmaking</b>	\$44,406	\$8,692	\$16,143	<b>\$69,241</b>

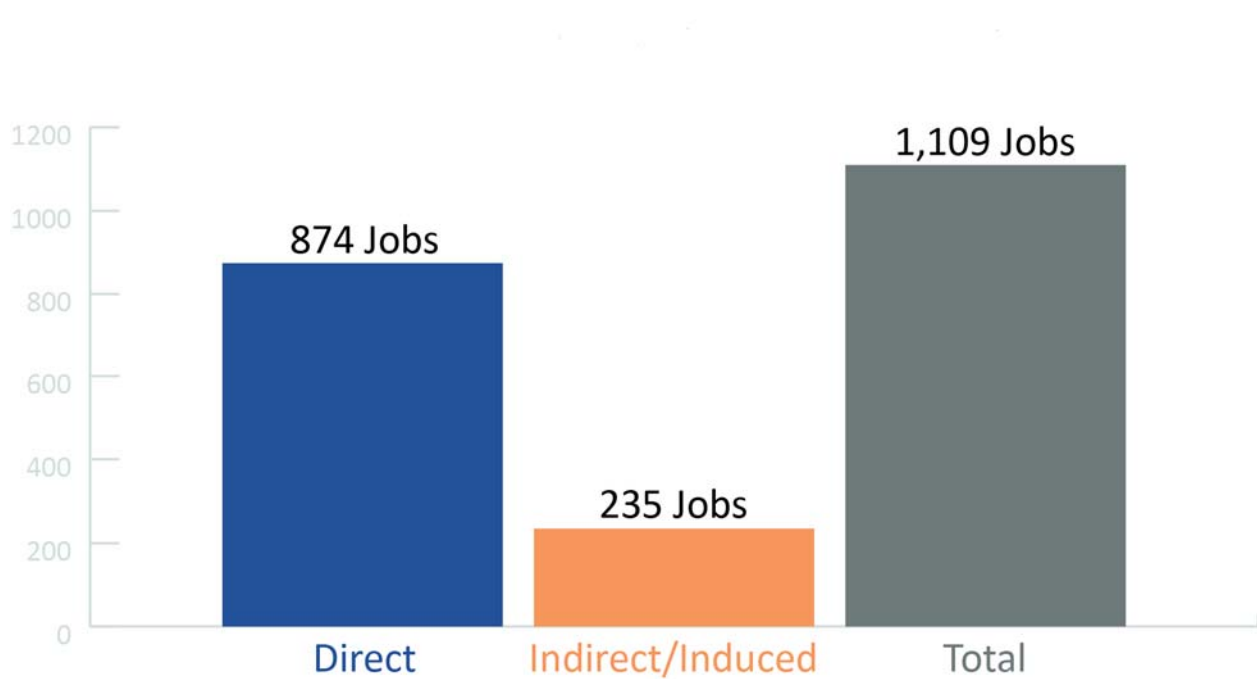
The grantmaking activities of WNHA attract other organizations and funders in the region to monetarily support the development of programs and projects that support the overall mission of the NHA. While not accounted for in the overall economic impact of WNHA, the grantmaking of the heritage area allowed for leveraged funding for projects and initiatives, contributing an additional \$817,000 in economic impact.

## G. OVERALL EMPLOYMENT IMPACT

Wheeling National Heritage Area supports a substantial number of jobs in the state. The total employment impact is **1,109 jobs** (874 direct jobs and 235 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
<b>Economic Impact</b>	<b>874 jobs</b>	<b>119 jobs</b>	<b>116 jobs</b>	<b>1,109 jobs</b>
<i>Tourism</i>	<i>866 jobs</i>	<i>116 jobs</i>	<i>114 jobs</i>	<i>1,095 jobs</i>
<i>Operations</i>	<i>7 jobs</i>	<i>3 jobs</i>	<i>2 jobs</i>	<i>12 jobs</i>
<i>Capital Funding</i>	<i>1 job</i>	-	-	<i>1 job</i>
<i>Grantmaking</i>	<i>1 job</i>	-	-	<i>1 job</i>

*\*Leveraged grantmaking contributes an additional 10 jobs.*

The “Top Employment Sectors” table illustrates the sectors with the largest number of jobs (includes direct, indirect and induced) supported by WNHA (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 WNHA.

**TABLE 8. TOP EMPLOYMENT IMPACT SECTORS**

Industry	Jobs
Full-service restaurants	283 jobs
Hotels and motel, including casino hotels	222 jobs
Retail – Miscellaneous store retailers	120 jobs
Limited-service restaurants	106 jobs
Other amusement and recreation industries	78 jobs
Transit and ground passenger transportation	38 jobs
Retail – Food and beverage stores	24 jobs
Retail – Gasoline stores	18 jobs
Real estate	11 jobs
Wholesale trade	9 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 WNHA’s attraction of visitors, operations, and regional investment, the NHA generates over **\$6.4 million** in tax revenue annually (\$4.7 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				\$5,408
Social Ins Tax – Employee Contribution	\$16,590			
Social Ins Tax – Employer Contribution	\$32,074			
Tax on Production and Imports: Sales Tax		\$3,100,572		
Tax on Production and Imports: Property Tax		\$1,577,773		
Tax on Production and Imports: Motor Vehicle License		\$44,238		
Tax on Production and Imports: Severance Tax		\$616,871		
Tax on Production and Imports: Other Taxes		\$294,221		
Tax on Production and Imports: S/L NonTaxes		\$38,857		
Corporate Profits Tax				\$81,758
Personal Tax: Income Tax			\$530,789	
Personal Tax: NonTaxes			\$50,092	
Personal Tax: Motor Vehicle License			\$20,445	
Personal Tax: Property Taxes			\$6,933	
Personal Tax: Other Tax (Fish/Hunt)			\$116	
<b>Total</b>	<b>\$48,664</b>	<b>\$5,672,531</b>	<b>\$608,376</b>	<b>\$87,165</b>
<b>Overall Impact: \$6,416,736</b>				

## I. VOLUNTEER IMPACT

It is estimated that volunteers at sites throughout the NHA generate more than **\$30,000 annually** as a result of their volunteer services.<sup>9</sup> Volunteers at WNHA 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 **\$86.6 million annual impact** generated by WNHA.

## 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 Wheeling National Heritage Area in 2012 demonstrated the heritage area's impact on the economy of the Wheeling, West Virginia region, as the NHA had an economic impact of \$56.6 million. Today, WNHA continues to serve as a vital driver in the economy of the Wheeling region, growing its impact and support of local jobs.

### 2017 Economic Impact Study Findings

- **Wheeling National Heritage Area** generates **\$86.6 million** in economic impact, supports **1,109 jobs**, and generates **\$6.4 million** in tax revenue.

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<sup>9</sup> Primary data about number of volunteers and hours volunteered was provided to Tripp Umbach by WNHA. 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.

## APPENDIX A: GLOSSARY OF TERMS

<b>Study Year</b>	Three Year Average of 2014, 2015, and 2016
<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>	Direct impact includes items such as operational spending, spending by visitors to the NHA, and grantmaking/capital expenditures.
<b>Indirect Economic Impact</b>	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.
<b>Induced Economic Impact</b>	Indirect impact, also known as the multiplier effect, includes the re-spending of dollars within the local economy by vendors and suppliers.
<b>Direct Employment</b>	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.
<b>Indirect Employment</b>	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.
<b>Multiplier Effect</b>	Total number of jobs created in the economy as a result of operations, tourist spending and grantmaking activities.
<b>Government Revenue Impact</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.
	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.<sup>10</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.

Tripp Umbach based visitor and general tourist spending patterns on National Park Visitor Spending estimates established in 2015.<sup>11</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.

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

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<sup>10</sup> 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.

<sup>11</sup> 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.<sup>12</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>13</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

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<sup>12</sup> 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>.

<sup>13</sup> 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.<sup>14</sup> The segments identified within qualitative interviews with NHA site directors and stakeholders as the most likely visitors to NHAs are local day, non-

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<sup>14</sup> 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.<sup>15</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 (See Table 11).<sup>16</sup>

**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%

<sup>15</sup> Ibid.

<sup>16</sup> The analysis acknowledges the possibility of average spending variance through the utilization of average spending derived from consumer choices, estimates, and average visitor counts.

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

**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.<sup>17</sup>

### ***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

<sup>17</sup> 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.

spending is entered into the IMPLAN model within Sector 493 – Museums, historical sites, zoos, and parks.

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.

## ACKNOWLEDGEMENTS

This report has been prepared to provide information demonstrating the economic benefits supported by Wheeling National Heritage Area.

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