

# **Economic Impacts of National Heritage Area Visitor Spending; Summary Results from Seven National Heritage Area Visitor Surveys**



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**ABSTRACT.** This report summarizes the results of visitor surveys and economic impact analyses for seven National Heritage Areas. Heritage visitor spending profiles for use in the MGM2 model are developed for four visitor segments: local residents, day trips from outside the local area, and overnight trips involving stays in local motels or with friends and relatives. For heritage areas without adequate visitor counts, economic impacts of visitor spending are estimated on a per 25,000 visit basis. Twenty-five thousand heritage visitors (10,000 visitor parties) 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. Direct effects accrue primarily to hotels, restaurants, amusements, and retail shops in the area. Secondary effects depend on the size and structure of the local economy. Secondary employment effects range from 17% of the direct effects for rural areas to 33% for larger metropolitan regions. Based on the visitors sampled at these seven heritage areas, about two thirds of the spending and associated economic impacts would be lost to the regions in the absence of the heritage attractions. The largest impacts are from overnight visitors staying in local lodging establishments. Recommendations cover the need for better visitor counts and possible directions for future visitor surveys and evaluation studies.

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## INTRODUCTION

The purpose of this report is to summarize results of visitor surveys at seven National Heritage Areas (NHA). This summary report focuses on common elements of the surveys across the seven areas and especially the economic impact analysis. Recommendations for future surveys and visitor monitoring efforts are provided based on the experience at the seven areas. Readers are referred to the individual reports for further details.

The visitor surveys were conducted to gather baseline data about heritage area visitors and especially to gather data necessary to estimate local economic impacts of heritage areas using the MGM2 model. This information can be used to foster local partnerships and to evaluate heritage area marketing and development strategies. Based on visitor spending and other information gathered in these surveys, a custom version of the Money Generation Model (MGM2) has been developed for use by heritage areas.

The Money Generation Model (MGM2) was originally developed to estimate local economic impacts of National Park visitors (Stynes, Propst, Chang, & Sun, 2000). An important objective of the heritage area studies was to extend the MGM2 model for application to heritage areas. Heritage area visitor surveys were designed to gather the basic visitor information required by the MGM2 model. Visitor spending patterns and basic trip characteristics such as visitor origins, lengths of stay, party size, and lodging types were measured. The surveys also provided an opportunity to gather baseline marketing information including visitor demographics, awareness of heritage areas, use patterns, and evaluations of programs and facilities.

The MGM2 model requires three basic inputs: (1) the number and types of visitors, (2) visitor spending patterns, and (3) local economic ratios and multipliers. Multipliers may be obtained from the MGM2 model or input-output models for regions around heritage areas. General park visitor and general tourist spending patterns are available from a number of secondary sources, but there remains the question of whether spending by heritage area visitors is different from that of park visitors or tourists in general. More precise estimates of spending must also take into account how spending may vary from one heritage area to another. Spending profiles for visitors to specific heritage areas were measured as part of the visitor surveys.

Twenty-four National Heritage Areas have been designated by Congress since 1984 to conserve nationally significant landscapes and to promote and protect their natural, historic, cultural and recreational resources. The areas are affiliated with the National Park Service (NPS), and managed by independent Federal Commissions, non-profit groups or state or municipal authorities. Heritage areas rely considerably on local partnerships to carry out their mission. Along with the goals of cultural, historical, and natural resource protection, heritage area management organizations strive to improve the quality of life in their regions by fostering the development of sustainable economies. Partnerships are encouraged through initiatives that increase educational and recreational opportunities for both local residents and tourists. Increased tourism and associated economic activity are important objectives of heritage areas.

The twenty-four national heritage areas are at different stages of development. As of 2004, nineteen areas had management plans approved by the Secretary of the Interior or under review. Program thrusts encompass marketing activities, development of interpretive and education programs, construction and restoration projects, and matching grant programs. The variety of activities and heavy partner involvement makes evaluation of the heritage programs quite difficult. One place to begin is some baseline information about visitor characteristics, awareness of heritage areas, visitor use patterns, and evaluations of programs and facilities. Estimates of visitor spending and local economic impacts help to position the heritage areas within the regional tourism market and local economy.

This study was funded by the National Park Service and the Alliance of National Heritage Areas. Heritage areas participating in this study were Augusta Canal National Heritage Area, MotorCities National Heritage Area, Cane River National Heritage Area, Essex National Heritage Area, Lackawanna Valley National Heritage Area, Ohio & Erie Canal National Heritage Corridor, and Silos & Smokestacks National Heritage Area (Figure 1). These seven areas are quite diverse, varying in geographic size, regional setting and the scope and nature of heritage facilities and programs (Table 1).



Figure 1. Seven Participating Heritage Areas (underlined)

**Table 1. Characteristics of Seven Participating National Heritage Areas**

Heritage Area	Size of the Region (sq. miles) <sup>a</sup>	National Register Properties	National Historic Landmarks	National Natural Landmarks	National Park Units	Area population 2000
Augusta Canal NHA	614	31	5	1	0	289,063
Cane River NHA	1,256	24 <sup>b</sup>	7 <sup>b</sup>	0	1	39,080
Essex NHA <sup>c</sup>	501	607 <sup>d</sup>	24	1	2	732,419
Lackawanna Valley NHA	2,902	64	2	3	1	622,505
MotorCities NHA	8,139	488	16	3	0	5,882,126
Ohio & Erie Canal NHC	2,015	47	7	0	1	2,405,889
Silos & Smokestacks NHA	21,812	239	0	4	2	1,755,222

<sup>a</sup> Size of counties (parish for Cane River) encompassing the local economic region around the heritage area.

<sup>b</sup> Cane River NHA includes three districts, two with more than one building, and one including over 110 properties.

<sup>c</sup> Data were compiled in 2002.

<sup>d</sup> 607 listings in the register, which included 9,288 national register properties.

Source: National Park Service (2004)

## METHODS

### Visitor Surveys

Surveys were conducted at MotorCities NHA hub sites during the summer and early fall of 2002. Ohio and Erie Canal NHC began surveying in January 2004. The other five areas launched surveys during the summer of 2003, most continuing into the fall. Silos and Smokestacks and Ohio and Erie Canal NHC gathered data on a year-round basis and were therefore still conducting surveys at the time of this report<sup>1</sup>.

Visitor surveys were designed to measure awareness of the heritage area, visitation patterns to the communities and facilities, trip characteristics, spending, and demographics. Surveys were administrated by the staff at each NHA who identified sampling locations and carried out data collection procedures. Technical assistance with the survey design and data analysis was provided by Michigan State University<sup>2</sup>. General survey procedures are outlined in a guidebook followed by several heritage areas (Stynes & Sun, 2003). Questionnaires and sampling procedures were tailored to the unique characteristics of each area. Variables required for the economic impact analysis were measured consistently so that spending profiles could be generated for specific visitor segments and cases could be pooled across heritage areas.

Augusta Canal NHA and Silos & Smokestacks NHA gathered all visitor information in a single on-site survey. The other five areas used a recommended two-stage approach, gathering basic visitor and trip characteristics in a short on-site survey and measuring spending,

<sup>1</sup> Only surveys completed as of May 15, 2004 at these two areas are covered here. More complete results will appear in separate reports for these two area.

<sup>2</sup> Technical assistance, data collection, and analysis for the Silos & Smokestacks NHA visitor survey were provided by the University of Northern Iowa. Ohio and Erie Canal NHC carried out their own data analysis.

evaluations of visitor experiences and more detailed trip patterns in a follow-up mailback survey. One adult member of each visitor party was interviewed using a short on-site questionnaire. Subjects were asked if they were willing to complete the more extensive mailback survey at the end of their trip. Mailback surveys were sent to participants after they arrived back home.

Due to budget limitations and to simplify survey administration, follow-ups to increase response rates to the mailback surveys were carried out only at NPS facilities<sup>3</sup>. Possible non-response bias was assessed by comparing responses to the on-site portion of the survey between those completing a mailback survey or not. Mailback survey spending results are adjusted to reflect the mix of visitors measured in the on-site survey. This corrects for typically lower mailback responses from local residents and visitors on day trips relative to overnight visitors.

Sampling dates and locations were determined by each heritage area with some technical assistance from Michigan State University<sup>4</sup>. It was recommended that facilities in each heritage area be grouped into similar types (strata) and that sampling dates be chosen for each strata to obtain good representation of weekdays and weekends as well as monthly variations in levels and kinds of use. Sampling was limited to facilities with willing partners and in some cases to times when student interns or other interviewers were available.

### **Response Rate & Non-Response Bias for the Mailback Survey**

As of May 15, 2004, a total of 3,215 on-site visitor surveys were completed (Table 2). For areas using the two-stage data collection scheme, a total of 497 mailback responses were generated. The average mailback response rate was 40% for those who agreed to participate in the mailback portion, but only 21% of all subjects completing on-site interviews.

Non-response bias in the mailback survey was assessed by comparing responses in the on-site survey of those who completed a mailback survey and those who did not. Variables selected for comparison were trip purpose, party size, awareness of the heritage area, and the percentage of local visitors, visitors on day or overnight trips. These are the key variables for the economic impact analysis. Data from the MotorCities, Cane River and Essex NHA were used to assess potential non-response bias.

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<sup>3</sup> These included Cane River Creole NHP at Cane River NHA, Salem Maritime National Historic Site at Essex NHA, and Cuyahoga Valley National Park at Ohio and Erie Canal NHC.

<sup>4</sup> Sampling locations and dates for each area are listed in the Appendix I.

**Table 2. Sample Size and Responses Rates for Seven National Heritage Areas**

Heritage Area	Onsite (A)	Agree to mailback (B)	Mailback returns (C)	Response rate I (C/A)	Response rate II (C/B)
<b>On-Site Survey Only</b>					
Augusta Canal National Heritage Area	462	-	-	-	-
<u>Silos &amp; Smokestacks National Heritage Area<sup>a</sup></u>	<u>436</u>	-	-	-	-
Sub total	898				
<b>With Mailback Survey</b>					
Cane River National Heritage Area	399	250	107	27%	43%
Essex National Heritage Area	348	149	65	19%	44%
Lackawanna Valley National Heritage Area	271	121	49	18%	40%
MotorCities National Heritage Area	1,049	634	244	23%	38%
<u>Ohio &amp; Erie Canal National Heritage Corridor<sup>a</sup></u>	<u>250</u>	<u>94</u>	<u>32</u>	<u>13%</u>	<u>34%</u>
Sub total	2,317	1,248	497	21%	40%
<b>Grand Total</b>	<b>3,215</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

<sup>a</sup> Additional surveys are being conducted at these areas. These figures reflect responses as of May 15, 2004.

There were no significant differences (95% confidence level) between respondents and non-respondents in terms of trip purpose, awareness of the heritage area or party sizes (Table 3). Those completing a mailback survey were, however, more likely to be on overnight trips. Across the three heritage areas examined, the percentage of overnight visitors was generally 10~15% higher among those completing a mailback survey, with day trips correspondingly lower. This bias toward overnight trips in the mailback survey was corrected by weighting cases in proportion to the percentage of overnight vs. day trips observed in the on-site survey.

### Economic Impact Methods

Economic impacts were estimated using the MGM2 model (Stynes et. al. 2000). Visitors were divided between local residents and visitors from outside the local region. The local region was defined as roughly a 30-mile radius of the heritage area facilities. Visitors from beyond 30 miles were generally divided into three segments: (1) visitors on day trips or passing through, not staying overnight in the local area, (2) overnight visitors staying in hotels, motels, or bed and breakfasts (B&B), and (3) overnight visitors staying with friends or relatives (VFR) in the area. A small number of campers were included with the VFR segment. The percentage of visitors from each segment was estimated from the on-site survey data.

Spending profiles for each visitor segment were estimated from the mailback surveys. If there were fewer than 20 cases within a given segment, spending patterns based on larger samples gathered at similar areas were substituted. Extensive spending data were not gathered at Augusta Canal NHA as it primarily serves local residents.



**Table 3. Comparison of Mailback Survey Respondents and Non-respondents<sup>a</sup>**

<b>I. Percentage of Visitors by Trip Type</b>				<b>III. Awareness of the NHA</b>				
	Non-respondent	Respondent	$\chi^2$ p-value		Non-respondent	Respondent	$\chi^2$ p-value	
<b>MotorCities NHA</b>				<b>Cane River NHA</b>				
Local day trip	42%	28%	0.001	Very familiar	3%	5%	0.715	
Non-local day trip	13%	14%		Somewhat familiar	35%	33%		
<u>Overnight trip</u>	<u>46%</u>	<u>58%</u>		Unfamiliar	60%	59%		
Total	100%	100%		<u>Not sure</u>	<u>2%</u>	<u>4%</u>		
Number of cases	797	214		Total	100%	100%		
<b>Cane River NHA</b>				<b>Essex NHA</b>				
Local day trip	1%	1%	0.016	Very familiar	5%	6%	0.606	
Non-local day trip	34%	18%		Somewhat familiar	30%	32%		
Hotel stay	50%	67%		Unfamiliar	53%	46%		
<u>Other overnight</u>	<u>15%</u>	<u>14%</u>		<u>Not sure</u>	<u>12%</u>	<u>15%</u>		
Total	100%	100%		Total	100%	100%		
Number of cases	292	103		Number of cases	197	149		
<b>Essex NHA</b>				<b>IV. The NHA was the primary purpose of the trip</b>				
Local day trip	13%	10%	0.041		Non-respondent	Respondent	$\chi^2$ p-value	
Non-local day trip	57%	47%			<b>Cane River NHA</b>			
Hotel stay	24%	33%			Yes	49%	53%	0.552
<u>Other overnight</u>	<u>5%</u>	<u>11%</u>		Number of cases	140	55		
Total	100%	100%		<b>Essex NHA</b>				
Number of cases	192	144		Yes	58%	63%	0.412	
				Number of cases	113	93		
<b>II. Party size</b>								
	Non-respondent	Respondent	t-test p-value					
Cane River NHA	2.77	2.44	0.285					
Essex NHA	2.72	2.91	0.158					

a. Non-respondents include those who refused a mailback survey and those who did not return the mailback.

b. Silos and Smokestacks NHA and Augusta Canal NHA did not use a mailback survey. Ohio & Erie Canal NHC and Lackawanna NHA had too few mailbacks to provide reliable comparisons.

Visitor counts were not available for all areas. Essex, MotorCities and Cane River NHA gathered visit counts from the primary attractions and visitor centers in their area<sup>5</sup>. Based on measures of use patterns from the visitor surveys, we made some adjustments for potential double counting and under-reporting of visitors. Considering possible errors and inconsistencies in use estimates at different facilities and limited information about use patterns, the total visit estimates are at best approximations. 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.

For the three heritage areas with visitation data, estimates of overall spending and

<sup>5</sup> Gathering of visitor counts at Silos and Smokestacks NHA was incomplete at the time of this report

economic impacts were obtained by extrapolating from the sample of visitors to the estimate of total annual use. For areas with no available use figures, spending and impacts were estimated on a “per 25,000 visitor” basis. Based on the percentage of visitors who were aware of the heritage area or who indicated that visiting the heritage site was the primary reason for the trip, attributions of economic impacts “caused” by the heritage area were made.

Regional economic multipliers in the MGM2 model were chosen based on the population size and economic characteristics of the region. Regions are defined by a 30-mile radius around the heritage area facilities. As most heritage areas encompass many sites, often spread over a wide geographic area, the regions can be quite extensive. MGM2 rural region multipliers are used for Cane River NHA, smaller metro area multipliers are used for Essex, Lackawanna Valley, and Silos and Smokestacks NHAs, and the MGM2 larger metropolitan area multipliers are used for MotorCities NHA and the Ohio and Erie Canal NHC. Multipliers determine the size of the secondary economic effects.

## SURVEY RESULTS

In this section, we summarize the information gathered across the seven heritage areas. The reports for individual heritage areas should be consulted for further details. Comparisons across studies should be interpreted cautiously as questionnaires and sampling procedures differ somewhat across the seven studies. This report focuses on survey questions that were in common and especially the economic analysis. The combined totals of visitors to the seven heritage areas are simple totals that do not adjust for differences in the number of visitors or the sample sizes across areas.

### Trip Characteristics and Awareness

Half of the sample of visitors (47%) to the seven cooperating areas had previously visited the heritage area where they were interviewed (Table 4). MotorCities NHA experienced the highest percentage of new visitors (66%), followed by Cane River NHA (63%). In contrast, Ohio & Erie Canal NHC and Augusta Canal NHA had the highest percentage of repeat visitors.

**Table 4. Percent of Visitors Who Reported the Trip Was Their First Visit to the NHA**

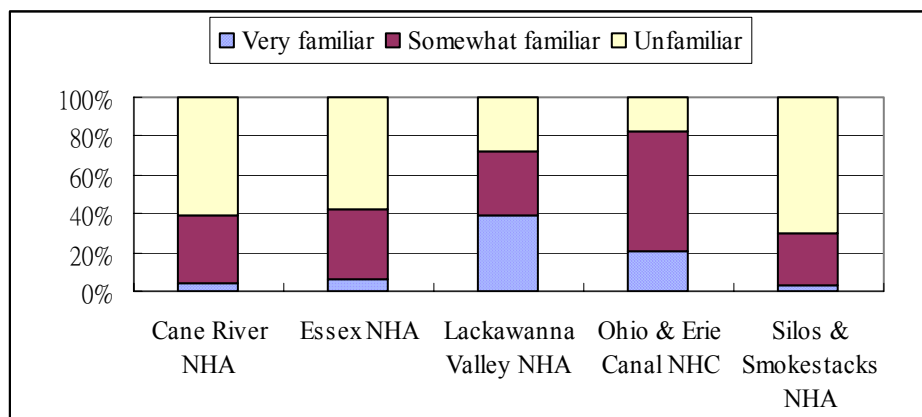
Heritage Area	First trip (Pct)	Number of cases
Augusta Canal NHA	27%	462
Cane River NHA	63%	396
Essex NHA	53%	347
Lackawanna Valley NHA	28%	271
MotorCities NHA	66%	1,038
Ohio & Erie Canal NHC	13%	223
<u>Silos &amp; Smokestacks NHA</u>	<u>34%</u>	<u>431</u>
Total / Average	47%	3,168

Twelve percent of visitors overall were “very familiar” with the heritage area where they were interviewed, 34% were “somewhat familiar”, and 47% were “unfamiliar” (Table 5). Visitors surveyed at Lackawanna Valley NHA and Ohio and Erie Canal NHC were more familiar with the heritage area than visitors at Cane River, Essex, Silos and Smokestacks or MotorCities NHA’s (Figure 2).

**Table 5. Familiarity with the National Heritage Area**

Heritage Area	Very familiar	Somewhat familiar	Unfamiliar	Not sure	Total	Number of cases
Cane River NHA	4%	34%	59%	3%	100%	397
Essex NHA	5%	31%	50%	13%	100%	348
Lackawanna Valley NHA	37%	31%	26%	5%	100%	270
Ohio & Erie Canal NHC	20%	61%	17%	2%	100%	221
<u>Silos &amp; Smokestacks NHA</u>	<u>3%</u>	<u>24%</u>	<u>64%</u>	<u>8%</u>	<u>100%</u>	<u>397</u>
Total / Average	12%	34%	47%	7%	100%	1,633

Note. Twenty- three percent (N=197) of the MotorCities NHA visitors reported that they had heard of the Motor Cities NHA, while 77% had not heard of it.



**Figure 2. Awareness of National Heritage Areas by Area**

On average, fifty-seven percent of visitors reported that one or more of the attractions in the heritage area was the primary purpose of their trip (Table 6). Day visitors were more likely to make the trip specifically to visit the heritage area attraction than visitors on overnight trips. Essex NHA was an exception with overnight visitors just as likely to cite a heritage attraction as the primary purpose as those on day trips.

**Table 6. Heritage Area Visitor Segments by Primary Trip Purpose**

Heritage Area	Day visitors	Overnight visitors	All visitors	Number of cases
<i>Percent indicating that visiting the heritage area was the primary trip purpose</i>				
Augusta Canal NHA	83%	59%	76%	104
Cane River NHA	65%	44%	50%	389
Essex NHA	58%	61%	59%	335
Lackawanna Valley NHA	73%	46%	63%	259
MotorCities NHA	77%	48%	63%	987
<u>Silos &amp; Smokestacks NHA</u>	<u>44%</u>	<u>28%</u>	<u>36%</u>	<u>411</u>
Total / Average	68%	45%	57%	2,485

Note. Sixty-six percent of visitors to Ohio and Erie Canal NHC reported the heritage area was their primary trip purpose.

## Lodging Segments

Across the seven heritage areas, forty-six percent of the sample reported that they had stayed overnight in the local region on their visit (Table 7). Cane River NHA and Silos & Smokestacks NHA had the highest percentage of overnight visitors while Ohio & Erie Canal NHC primarily served day trip visitors.

**Table 7. Day Trips vs. Overnight Trips By Heritage Area**

Heritage Area	Day trips	Overnight trips	Total	Number of cases
Augusta Canal NHA	72%	28%	100%	105
Cane River NHA	31%	69%	100%	399
Essex NHA	63%	37%	100%	338
Lackawanna Valley NHA	66%	34%	100%	262
MotorCities NHA	51%	49%	100%	1,029
Ohio & Erie Canal NHC	87%	13%	100%	198
<u>Silos &amp; Smokestacks NHA</u>	<u>47%</u>	<u>53%</u>	<u>100%</u>	<u>417</u>
Total / Average	54%	46%	100%	2,748

Note. Overnight trips were cases that reported an overnight stay in the local region.

Twenty-two percent of the combined sample of heritage area visitors were local residents on day trips, 29% were visitors on day trips from outside the local area, 34% were overnight visitors staying at hotels/ bed & breakfast, and 14% were overnight visitors staying with friends and relatives or camping (Table 8). These segment shares vary considerably across heritage areas depending on the size of the local population, distances to major markets and the extent of overnight accommodations and other tourist attractions in the area. Different facilities within a given heritage area may also serve distinct markets.

**Table 8. Lodging Segment Shares By Heritage Area**

Heritage Area	Local day visitor	Non-local day visitor	Hotel	Other Overnight	Total	Number of cases
MotorCities NHA	39%	13%	38%	10%	100%	1,011
Cane River NHA	1%	30%	55%	14%	100%	395
Essex NHA	12%	53%	28%	8%	100%	338
Lackawanna Valley NHA	42%	28%	18%	12%	100%	257
<u>Silos &amp; Smokestacks NHA<sup>a</sup></u>	-	<u>48%</u>	<u>22%</u>	<u>30%</u>	<u>100%</u>	<u>417</u>
Total / Average	22%	29%	34%	14%	100%	2,418

Note. <sup>a</sup> Information to distinguish local day visitors from non-locals was not available.

The average length of stay for overnight visitors was 2.2 nights if staying in hotels or 3.2 nights if staying in other lodging facilities (Table 9). Average party sizes generally range from 2.5 to 3.0 (Table 10).

**Table 9. Length of Stay By Heritage Area and Visitor Segment**

Heritage Area	Local day visitor	Non-local day visitor	Hotel	Other Overnight	Number of case
MotorCities NHA <sup>a</sup>	1.0	1.0	2.3	3.1	182
Cane River NHA	1.0	1.0	1.9	2.8	360
Essex NHA	1.0	1.0	2.3	3.7	327
Lackawanna Valley NHA	1.0	1.0	2.3	4.0	247
<u>Silos &amp; Smokestacks NHA</u>	-	<u>1.0</u>	<u>2.8</u>	<u>3.1</u>	<u>246</u>
Weighted Average	1.0	1.0	2.2	3.2	1,362

Note. Cases with length of stay longer than 7 days are excluded.

<sup>a</sup> Information was obtained from the mailback survey.

**Table 10. Party Size By Heritage Area and Visitor Segment**

Heritage Area	Local day visitor	Non-local day visitor	Hotel	Other Overnight	Number of case
MotorCities NHA <sup>a</sup>	2.7	2.4	2.7	2.7	182
Cane River NHA	4.3	2.9	2.5	2.8	360
Essex NHA	2.5	2.8	2.7	3.1	327
Lackawanna Valley NHA	3.0	3.1	2.8	2.7	247
<u>Silos &amp; Smokestacks NHA</u>	-	<u>2.9</u>	<u>2.6</u>	<u>2.4</u>	<u>246</u>
Weighted Average	2.8	2.8	2.6	2.7	1,362

Note. Cases with party sizes larger than eight are excluded.

<sup>a</sup> Information was obtained from the mailback survey.

## Spending Profiles

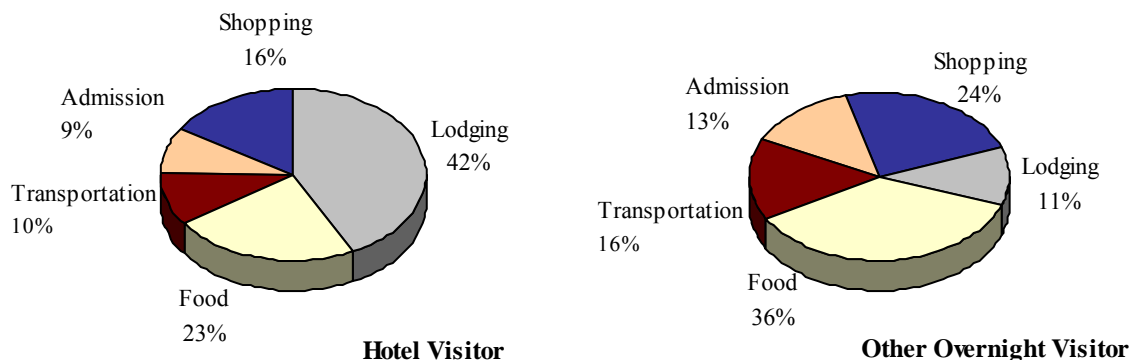
Visitors were asked to report their spending in the local region within seven spending categories. Spending was measured on a party trip basis. By dividing by the length of stay in the area, spending was converted to a party per day basis. Local day visitors average \$56 per party while non-local day visitors spent \$85. Locals spent relatively less on restaurants and local transportation compared to non-locals (Table 11).

Visitors staying in hotels spent \$523 per party on the trip with \$223 for lodging and \$107 for restaurant meals. The average nightly lodging expense was \$97 for visitors staying in hotels. This is generally consistent with room rates in these areas. Other overnight visitors spent \$234 per party per trip or \$75 per party on a per night basis. Forty-two percent of spending by visitors staying overnight in local hotels was for room costs, followed by food (23%) and shopping (16%). Overnight visitors staying with friends or relatives or campgrounds spent relatively more on food (36%) and shopping (24%) (Figure 3).

**Table 11. Detailed Spending Profiles for National Heritage Area Visitors, 2003 -2004**

Lodging segment	Local day visitor	Non-local day visitor	Hotel	Other Overnight
<b>Party Trip Spending (\$)</b>				
Lodging	\$0.00	\$0.00	\$222.54	\$26.23
Restaurants	12.98	29.08	107.24	59.95
Groceries	1.14	4.59	10.93	23.95
Gas	4.39	8.36	34.16	22.69
Other transportation expenses	0.09	6.46	19.51	13.97
Admissions	15.07	14.25	45.06	31.47
<u>Shopping</u>	<u>22.24</u>	<u>22.29</u>	<u>83.54</u>	<u>55.31</u>
Total	55.90	85.04	522.96	233.58
<b>Party Day Spending (\$)</b>				
Lodging	0.00	0.00	96.52	8.41
Restaurants	12.98	29.08	46.51	19.23
Groceries	1.14	4.59	4.74	7.68
Gas	4.39	8.36	14.82	7.28
Other transportation expenses	0.09	6.46	8.46	4.48
Admissions	15.07	14.25	19.54	10.09
<u>Shopping</u>	<u>22.24</u>	<u>22.29</u>	<u>36.24</u>	<u>17.74</u>
Total	55.90	85.04	226.83	74.92
Length of stay	1.00	1.00	2.31	3.12
Party size	2.70	2.73	2.56	2.56
Number of cases	57	190	216	154
Standard Error of Mean	6.06	6.02	10.09	8.72
Percent Error (party day spending)	11%	7%	4%	12%

Note. Cases with 1) missing values for the spending questions, 2) party sizes larger than 8, 3) lengths of stay longer than 7, or 4) per party per day spending higher than \$1,000, were omitted in computing spending averages. The Percent error = standard error of mean / mean.



**Figure 3. Spending Distributions by Spending Category for Hotel and Other Overnight Visitors**

Spending averages vary somewhat across heritage areas based on local prices and spending opportunities (Table 12). Prices and room rates are generally higher in metropolitan areas and regions with extensive tourist developments. This is reflected in the higher visitor spending averages at Essex NHA and MotorCities NHA. Spending averages were somewhat lower for Silos and Smokestacks NHA visitors. Spending was measured in the on-site survey at Silos and Smokestacks and therefore may have missed some spending that occurred after leaving a particular facility, but prior to leaving the region. Facilities within the Silos and Smokestacks NHA are widely dispersed with many in rural areas.

Spending by heritage area visitors is slightly higher than that of National Park visitors, but similar to spending of tourists more generally. Compared to park visitors, heritage visitors tend to spend more on admissions, shopping and restaurant meals<sup>6</sup>.

**Table 12. Average Spending By Heritage Area and Visitor Segments**

	Local day visitor	Non-local day visitor	Hotel	Other Overnight
<b>Party Trip Spending (\$)</b>				
MotorCities NHA	53.18	71.89	590.77	284.66
Cane River NHA	.	99.46	466.12	
Essex NHA		103.00	629.95	
Lackawanna Valley NHA	.	50.13	445.50	182.21
Silos & Smokestacks NHA	.	76.61	454.89	202.79
<b>Party Day Spending (\$)</b>				
MotorCities NHA	53.18	71.89	251.63	93.21
Cane River NHA	35.00 <sup>a</sup>	99.46	245.33	77.34 <sup>a</sup>
Essex NHA	48.82 <sup>a</sup>	103.00	279.98	103.00 <sup>a</sup>
Lackawanna Valley NHA	-	50.13	222.75	56.27
Silos & Smokestacks NHA	-	76.61	161.00	65.53

<sup>a</sup> Due to small sample sizes, spending profiles are replaced with the MGM2 default spending averages. MGM2 high spending profiles are used for Essex NHA and MGM2 medium spending profiles for Cane River.

<sup>6</sup> Park comparisons are based on the generic spending averages in the MGM2 model. These are also reported in Stynes et al. (2004).

## **Economic Impacts of National Heritage Areas**

The results of the economic impact analysis for three of the participating heritage areas with adequate visit information are summarized first. We then provide a more general picture of the impacts of heritage area visitor spending by estimating impacts of 25,000 visitors (10,000 visitor parties) for a typical area.

Three heritage areas (Essex NHA, Cane River NHA and MotorCities NHA<sup>7</sup>) provided sufficient visit information to extrapolate from the sample to all visitors in 2003 and to estimate economic impacts. Visit counts at selected facilities were provided by the heritage area and the combined totals were adjusted to reflect possible double counting and under reporting. It should be noted that visit data for different facilities may not be completely consistent and will vary considerably in reliability. Adjustments for multiple counting of visitors and undercoverage are at best rough approximations, so estimates should be viewed as ballpark estimates based on the best information presently available.

Visit estimates for 2003 ranged from 0.1 million at Cane River NHA to 1.2 million at Essex and 1.4 million at MotorCities NHA. Taking into account lengths of stay in the area, these visit figures were converted to the number of party days/nights<sup>8</sup> by heritage visitors in the local region (Table 13). Spending averages (per party per night) were similar across the three heritage areas: \$171 at Cane River, \$179 at Essex and \$165 at MotorCities NHA. Total visitor spending ranged from \$8.7 million at Cane River NHA to \$130 million at Essex NHA.

The direct employment effects of visitor spending are 207 jobs at Cane River NHA and almost 3,500 jobs at Essex NHA. Impacts in terms of sales and personal income for the three areas are summarized in Table 13. Total effects include jobs and income from secondary effects (indirect and induced) as the initial spending by heritage visitors circulates within the local economy. Sales multipliers vary from 1.3 for the largely rural Cane River NHA to 1.5 for Essex NHA and 1.6 for MotorCities NHA, which includes the Detroit metropolitan area and most of southeast Michigan.

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<sup>7</sup> Economic impacts were not estimated for the Augusta Canal NHA. Economic impacts for the Lackawanna NHA were reported per 25,000 visitors as visit figures were not available. Data collection at Ohio and Erie Canal NHC and Silos & Smokestacks NHA were not complete at the time of this report.

<sup>8</sup> Day trips are measured as one day, overnight trips are measured in nights spent in the area.



**Table 13. Visits, Spending and Economic Impacts for Three Heritage Area, 2003**

	Cane River NHA	Essex NHA	MotorCities NHA
<b>Visits and Spending</b>			
Total visits in 2003 (million's)	0.1	1.4	1.2
Average spending per party per night	\$171	\$179	\$165
Total party nights in the region (000's)	51	727	746
Total visitor spending (million's)	\$8.7	\$130.4	\$122.8
<b>Economic Impacts</b>			
Direct effects			
Sales (million's)	\$7.20	\$113.84	\$105.53
Jobs	207	3,488	2,107
Personal income (million's)	\$2.45	\$45.22	\$43.12
Total effects			
Sales (million's)	\$9.53	\$166.51	\$166.27
Jobs	243	4,179	2,748
Personal income (million's)	\$3.23	\$65.05	\$67.37
<b>Sales multiplier</b>	1.3	1.5	1.6

Note. Economic impacts cover all spending by visitors, who visit at least one heritage area facility during their trip. Jobs include full and part time jobs. Personal income covers wages and salaries including payroll benefits. Further details are available in the reports for individual areas.

### Impacts of 25,000 Heritage Area Visitors

The general economic significance of heritage visitors on local regions can be seen by examining the impacts of 10,000 additional party trips or, based on an average party of 2.5 people, 25,000 person trips (visits). Table 14 allocates 10,000 party trips to the four visitor segments based on the average segment distribution of heritage area visitors from Table 8. Trip spending averages from Table 11 are multiplied by the number of party trips to estimate total spending. Based on the assumed segment distribution, ten thousand visitor parties spend \$2.5 million dollars in the local area.

**Table 14. Visits and Spending by Segment for a Typical Heritage Area, 10,000 Party Trips**

Segment	Segment Share	Visits in Party-trips	Average Spending (\$)	Total Spending (\$000's)	Pct of Spending
Local day visitor	22%	2,200	\$56	\$123	5%
Non-local day visitor	30%	3,000	85	255	10%
Hotel	34%	3,400	523	1,778	72%
<u>Other Overnight</u>	<u>14%</u>	<u>1,400</u>	<u>234</u>	<u>327</u>	<u>13%</u>
<b>Total/Average</b>	<b>100%</b>	<b>10,000</b>	<b>248</b>	<b>2,483</b>	<b>100%</b>

NOTE: results will vary for specific heritage areas depending on the segment mix and variations in spending averages between high and low spending regions.

While representing only a third of visits in this example, visitors staying in hotels, motels or B&B's account for 72% of the spending (Table 14). The direct effects of visitor spending accrue primarily to lodging establishments, restaurants, retail trade, and amusements (including museums). For a heritage area located in a region of moderate size (100,000 – 300,000 people), the direct impact on the local economy is \$2.1 million in sales, \$779,000 in wage and salary income, and \$1.16 million in value added<sup>9</sup> (Table 15). The spending directly supports about 50 jobs. The aggregate tourism sales multiplier for this type of region is 1.46, which means for every dollar of direct sales, an additional \$ .46 in secondary sales is generated through indirect and induced effects. Including secondary effects, the total impact is \$3.1 million in sales, \$1.1 million in personal income, and 64 jobs.

**Table 15. Economic Significance of 10,000 Heritage Area Party Trips**

Sector/Spending category	Direct Sales (\$000's)	Personal Income Jobs	Value Added (\$000's)
<b>Direct Effects</b>			
Lodging	\$793	17	\$393
Restaurants & bars	\$564	16	\$268
Amusements	\$273	8	\$155
Local transportation	\$105	3	\$70
Retail Trade	\$301	8	\$240
Wholesale Trade	\$43	0	\$29
<u>Local Production of goods</u>	<u>\$37</u>	<u>0</u>	<u>\$5</u>
<b>Total Direct Effects</b>	\$2,117	51	\$1,161
<u>Secondary Effects</u>	<u>\$970</u>	<u>13</u>	<u>\$607</u>
<b>Total Effects</b>	\$3,088	64	\$1,768
<u>Multiplier</u>	<u>1.46</u>	<u>1.26</u>	<u>1.52</u>

Note: Based on MGM2 small metropolitan region multipliers and spending averages in Table 11.

Visitor segments have different spending patterns and hence distinct economic impacts. The impacts of attracting different types of visitors can be seen by examining the impacts of 10,000 additional trips (party trips) by each segment (Table 16). Attracting 10,000 additional local trips generates \$559,000 in spending supporting 11 direct jobs and 14 jobs with secondary effects. The jobs are primarily in restaurants, amusements and retail trade. Spending by local visitors would normally not be included in an economic impact analysis as their spending does not represent new money to the area.

<sup>9</sup> Value added includes personal income (wages and salaries), profits and rents, and indirect business taxes. It is the preferred measure of the contribution of an activity or industry to a region's economy.

**Table 16. Employment Impacts of 10,000 Party Trips by Visitor Segment**

Sector/Spending category	Local day visitor	Non-local day visitor	Hotel	Other Overnight
<b>Direct Effects</b>	<b>Jobs</b>			
Lodging	-	-	47	5
Restaurants & bars	4	8	30	16
Amusements	4	4	13	9
Other vehicle expenses	-	-	-	-
Local transportation	0	2	5	4
Retail Trade	3	4	14	10
Wholesale Trade	0	0	1	1
<u>Local Production of goods</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total	11	18	109	46
<u>Secondary Effects</u>	<u>2</u>	<u>4</u>	<u>29</u>	<u>11</u>
<b>Total Effects</b>	14	22	138	56
<u>Spending (\$ 000's)</u>	559	850	5,230	2,336

Note: Based on MGM2 small metropolitan region multipliers and spending averages in Table 11.

Attracting 10,000 additional day trips from outside the region generates \$850,000 in spending and has a total employment impact of 22 jobs. The greatest impacts come from visitors staying overnight in local hotels, motels or B&B's. Ten thousand additional trips (party trips) by visitors staying in hotels generate \$5.2 million in spending and supports 138 jobs. Forty-seven of these jobs are in hotels, 30 in restaurants, 14 in retail trade, and 13 in amusements including museums, recreation and entertainment facilities. The other overnight segment is a mix of visitors staying with friends and relatives or in campgrounds. Ten thousand trips (party trips) from this segment generate \$2.3 million in spending and supports 56 jobs in total.

Absolute impacts will be greater for heritage areas located in large metropolitan regions or regions with extensive tourism development. They will be lower in rural regions with fewer spending opportunities and often lower prices. In relative terms, however, income and jobs supported by heritage visitor spending will generally represent a much larger percentage of income and jobs in rural regions than in metropolitan areas, as rural regions with limited economic bases will be more dependent on tourism-related activity. That is, 50 jobs in a large metropolitan region are relatively insignificant in terms of the overall economy, but they would make a significant difference in a small rural community.

Table 17 summarizes how the economic impacts will vary with the level of economic development in the area. In this analysis, the mix of visitors and spending patterns are fixed and the economic multipliers are varied. The multipliers primarily influence the size of the secondary effects. The MGM2 sales multipliers increase from 1.32 for predominantly rural regions to 1.46 for small metropolitan regions to 1.56 for larger metropolitan regions. As the level of economic development increases, some additional spending is captured as direct sales (largely due to goods bought at retail that are locally manufactured), but the greater differences across types of regions are the secondary effects. The direct job impacts actually decline for regions with greater

economic development as job to sales ratios in tourism-related sectors tend to be higher in rural areas due to a combination of lower wages, more part time and seasonal position, and diseconomies of scale in smaller firms.

**Table 17. Economic Impacts of 10,000 Party Trips by Level of Economic Development**

	Rural Area	Small Metropolitan Region	Large Metropolitan Region
<b>Direct Effects</b>			
Sales (\$000's)	2,085	2,117	2,136
Jobs	58	51	46
Personal Income (\$000's)	727	779	819
Value Added (\$000's)	1,083	1,161	1,222
<b>Total Effects</b>			
Sales (\$000's)	2,762	\$3,088	\$3,328
Jobs	68	64	61
Personal Income (\$000's)	954	\$1,131	\$1,258
Value Added (\$000's)	1,502	\$1,768	\$1,966
Sales Multiplier	1.32	1.46	1.56

Note: The analysis uses the fixed segment mix and spending averages in Table 14.

The impact estimates in Tables 15-17 can be applied to marginal changes in the number of visitors associated with a given marketing action or policy. If reliable estimates of total visits are available, the impact estimates can be expanded to cover all visitors. For example, an area with 180,000 visitor parties with a segment mix and spending averages similar to Table 14 should multiply the impact estimates in Table 15 by 18 to compute the total impact of 180,000 visitor parties. Impacts for a particular area can also be computed using the MGM2 spreadsheet model by entering the number of visits, segment mix and spending averages and choosing appropriate multipliers.

### Attribution Issues

One of the most difficult problems in estimating impacts of heritage areas is identifying which spending and impacts can be directly attributed to heritage area programs. The impact estimates presented above count all spending in the local area on any trips involving a visit to at least one heritage area facility. This definition must usually be narrowed to facilities where visits are counted or where they can at least be approximated.

In a pure "impact" analysis, one attempts to isolate the changes "with versus without" the program. Our studies at these seven heritage areas did not define the "program" in terms specific enough to carry out a "with versus without" analysis. Indeed, the variety and complexity of heritage area activities makes such an analysis impossible. For example, would the "without" scenario be the absence of all of the heritage area facilities and programs, including those of the

many partners and cooperators or just the absence of official heritage area designation and the additional activities and programs associated with such designation?

Not all of the spending of heritage area visitors would necessarily be lost to the region in the absence of these facilities or programs. For example, it is usually assumed that local residents would spend the money on other activities in the area, if the particular attraction or recreation opportunity were not available. Heritage attractions are not always the primary purpose of trips to the area, particularly for overnight trips that may be made to visit friends or relatives, for business, or to visit the community more generally. Isolating the role of heritage areas or particular marketing activities in generating additional trips and spending requires fairly targeted research designs.

Our initial efforts to address the attribution issue involved measuring visitor awareness of heritage areas (Table 5) and whether or not the heritage attractions were the primary purpose of the trip (Table 6). One can argue that spending by visitors who were unaware of the heritage area itself, cannot be attributed to the heritage area program, at least if attempting to isolate the impacts of heritage area designation from pre-existing programs and activities of partners. However, it should be noted that visitors may be influenced by programs or marketing activities even when they cannot recall a name, logo, or organization.

Visitors with the highest spending also tend to be the most likely to be traveling to the region for a variety of purposes and activities. Overnight visitors were less likely than visitors on day trips to be coming to the area primarily to visit heritage attractions. More conservative spending and impact estimates can be made by attributing a portion of trip spending to heritage areas when visiting heritage attractions was not the primary trip purpose. The choice of how much to include is inherently somewhat subjective.

Our approach is to split overnight trips between those primarily to visit heritage area attractions and trips made primarily for other purposes. Based on Table 6, 45% of overnight trips are treated as non-primary purpose trips and 55% as primary. For primary purpose trips, we assume the trip would not be made in the absence of the heritage attractions and hence all spending is attributed to the heritage area. For non-primary purpose overnight trips, we count the equivalent of one night of spending<sup>10</sup>. Under these assumptions the total spending attributable to 10,000 heritage area party trips drops from \$2.5 million to \$1.8 million (Table 18). Excluding spending by local residents reduces the spending to \$1.7 million.

The direct employment impacts of \$1.8 million in visitor spending attributed to the heritage area are now 37 jobs, 14 fewer than the 51 jobs estimated in Table 15. The reductions are primarily in lodging and restaurants, stemming from the fewer nights being counted for the non-primary purpose overnight trips. There are similar reductions in estimates of sales, income and value added attributed to heritage area visitors (Table 19).

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<sup>10</sup> One could also reduce day trip spending attributed to heritage areas by counting only a portion of spending on non-primary purpose, non-local day trips. One option is to treat these trips as the equivalent of a local day trip in terms of spending. Since the majority of day trips are primary purpose trips and the difference in spending between local and non-local day trips is only \$30, this change reduces the total spending in Table 18 by only \$28,000.

**Table 18. Impact Scenario: Trips and Spending for 10,000 Party Trips**

Segment	Party Trips	Spending Average (\$)	Total Spending (\$000's)
Local day visitor	2,200	\$ 56	\$ 123
Non-local day visitor	3,000	85	255
Hotel Primary Purpose	1,530	523	800
OVN-Primary Purpose	630	234	147
Hotel-Not Primary	1,870	226	423
<u>OVN-Not Primary</u>	<u>770</u>	<u>75</u>	<u>58</u>
Total/Average	10,000	181	1,807
Total Excluding Locals			1,684

Note: Based on the same segment shares and spending averages in Table 14, but splitting out 45% of hotel and other OVN trips as non-primary trips and counting only one night of spending for the non-primary segments.

**Table 19. Economic Impact of 10,000 Heritage Area Party Trips, Impact Scenario**

Sector/Spending category	Direct Sales \$000's	Jobs	Personal Income \$000's	Value Added \$000's
<b>Direct Effects</b>				
Motel, hotel cabin or B&B	544	11	177	269
Camping fees	-	-	-	-
Restaurants & bars	419	12	143	199
Admissions & fees	209	6	72	118
Gambling	-	-	-	-
Other vehicle expenses	-	-	-	-
Local transportation	77	2	44	52
Retail Trade	226	6	115	180
Wholesale Trade	32	0	13	22
<u>Local Production of goods</u>	<u>27</u>	<u>0</u>	<u>2</u>	<u>4</u>
<b>Total Direct Effects</b>	1,534	37	566	844
<u>Secondary Effects</u>	<u>700</u>	<u>9</u>	<u>254</u>	<u>438</u>
<b>Total Effects</b>	\$2,234	47	\$820	\$1,282

Note: Impacts are based on \$1.8 million in spending from Table 18 counting only one night of spending for non-primary purpose overnight trips.

## CONCLUSIONS/RECOMMENDATIONS

This report has summarized the results of visitor surveys at seven National Heritage Areas and developed general spending profiles for heritage area visitors by pooling data across those areas gathering spending information. Economic impacts are estimated on a per 25,000 visitor basis. Based on the experiences at the seven areas our general conclusions and recommendations are summarized in four categories:

- Visit counts
- Visitor surveys
- Economic impacts
- Evaluation studies

### Visit Counts

Estimating the number of visitors poses the greatest difficulty for heritage areas. Heritage areas are embedded in and, indeed, integral parts of the communities they encompass. There is not a single “gate” where visitors may be counted or readily sampled. It is difficult to clearly separate “heritage” tourists from other tourists to a region. The most cost-effective method for estimating the number of heritage visitors is likely to add up visit counts at facilities that are designated primarily as heritage sites. However, many facilities and programs within the heritage areas do not have systematic counting methods and where systematic methods do exist they may not be consistent across different facilities.

Adding up visitor counts at individual facilities will count some visitors more than once. Some heritage area visitors will visit multiple attractions on a given trip. Indeed, one of the likely impacts of heritage area programs will be to increase the number of different attractions visited on a given trip. If visits, summed over several attractions, are multiplied by spending during the trip, total spending will be exaggerated.

Surveys conducted at heritage areas in 2003 attempted to address the multiple counting problem by asking visitors which facilities they had visited during their trip. By identifying how many of the facilities with visitor counts that each subject had visited, we hoped to identify the extent of multiple counting. This approach was only marginally successful. The lack of visitor count data prior to designing the sampling scheme along with small sample sizes in the mailback surveys and, for some heritage areas, more facilities than could be listed on the questionnaire or easily identified by respondents posed problems in trying to estimate the extent of multiple counting. Capturing heritage visitors that may not enter any facilities that have counting procedures in place is another problem.

Tracking changes in the levels of visitation to heritage areas should be a key piece of monitoring and evaluation efforts. Each heritage area is different and will likely require distinct approaches. For areas with one or two “magnet” facilities or visitor centers that most heritage tourists would likely visit during their trip, counting systems may focus most efficiently on just these facilities, under the assumption that they will capture the vast majority of visitors to the

area. Counting procedures will be more difficult/expensive for areas with many small facilities, sometimes clustered in a single geographic area and in other cases widely dispersed. Special events pose additional difficulties for counting visitors.

Heritage areas should identify which facilities have visitor counts and evaluate the reliability and consistency of counting procedures at each site. A good understanding of existing visitor counts is a pre-requisite to designing a more complete system that will cover most heritage visitors, while minimizing double counting problems. Systems to regularly compile visit data from participating facilities/organizations and assemble it in a consistent form would be useful. This is easier said than done, as some organizations are reluctant to release use data.

### **Visitor Surveys**

Visitor surveys are useful for measuring characteristics of heritage area visitors, their activities and trip patterns, and their awareness, attitudes and evaluations of programs. For heritage areas, there are significant difficulties in defining the relevant study population and obtaining representative samples. Populations for the seven participating heritage areas were defined to include individuals visiting one or more designated heritage area facilities during a given time period. Cooperating heritage areas have sampled visitors during one or two seasons to date and only a selection of facilities willing to participate were included in the sampling plans.

For most heritage areas we cannot directly assess how representative the resulting sample may be of all visitors to the heritage area. The appropriate weights to combine the samples gathered at individual facilities to represent the overall heritage area are largely unknown. There is also limited information about seasonal variations in visitor characteristics and trip patterns.

Better information about use levels at individual facilities and visitor patterns of use are needed to efficiently allocate sampling effort and combine samples across distinct facilities and seasons. While weights to adjust the sample could be developed for some heritage areas, in the light of small numbers of completed surveys at many facilities and large differences in visit levels across facilities, weighting of the data was not done<sup>11</sup>.

As an initial survey effort for these heritage areas, the surveys provide some baseline information about visitors and also experience in conducting visitor surveys. There are several limitations of the results that should be noted.

- The samples may not be completely representative of all visitors to each heritage area. Results will reflect which facilities were included in the sample and the time periods covered. Variations in visitor and trip characteristics across facilities or by season may not be fully reflected in the results. To the extent that heritage area visitors visit multiple facilities in an area and have similar characteristics and use

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<sup>11</sup> These characteristics would result in very large weights being applied to a small number of cases at some facilities, while largely discounting visitors surveyed at facilities with low use. The absence of visit counts for many facilities and the small numbers of mailback cases from which to gauge multi-facility use patterns were other reasons for not attempting to weight the sample.



patterns the results will be less sensitive to when and where samples were gathered. Heritage areas with facilities spread out over large geographic regions or encompassing facilities of very different scales and types pose particular problems for obtaining representative samples that cover all visitors. Larger samples are required in these situations.

- Small samples, particularly to the mailback surveys, yield sampling errors of 20% or higher in the reported statistics for most areas. Results based on the on-site sample are more reliable, but should be interpreted in the light of which facilities and seasons are covered.
- Low response rates to the mailback surveys introduce potential non-response bias. The economic analysis adjusts for the usual non-response biases in spending surveys by using the on-site sample to estimate visitor trip segment shares.
- There are variations in how the survey procedures were implemented at each heritage area and likely also at individual sampling sites.

Surveys are not the best vehicles for monitoring change over time. To be useful in a monitoring program, survey methods must be consistently carried out over time and include sufficient size samples to detect changes. Heritage areas may lack the resources to conduct visitor surveys on a regular basis. The scope and complexity of heritage area programs and facilities requires fairly complex survey designs and larger samples than most areas were able to gather in 2003. Success of these surveys depends considerably on the cooperation and assistance of partners in each area.

A mailback survey was recommended in order to capture complete spending data and activity patterns reported after visitors had completed their trips and left the area. The short on-site survey identified willing subjects and gathered basic trip characteristics. High refusal rates for the mailback survey along with low response rates for those agreeing to participate resulted in small samples of completed mailback surveys. On the other hand, heritage areas employing only an on-site survey may not have captured all spending and activity while visitors are in the area.

Almost 500 mailback surveys were completed and returned across the five heritage areas using the mailback survey. This provides an adequate sample to estimate spending patterns for heritage area visitors in general and also some information about how spending varies from one area to another. The results can be used to adapt the MGM2 model for use by heritage areas.

There are several options heritage areas might consider for future surveys. The best approach will likely vary from area to area depending on the characteristics of the area, available resources and potential cooperation of partners. Different areas may also have distinct objectives and intended uses of a survey.

A regular, large scale visitor survey, while desirable, may be beyond the capabilities of

most areas. A major sponsor would be required to underwrite the costs and a local survey research firm or University recruited to provide the technical assistance. Survey costs would range from \$10,000 for smaller heritage areas with only a few key attractions to as high as \$100,000 for larger ones with many distinct attractions spread out over a wide geographic area. Some heritage areas may be able to cooperate with local tourism organizations to better identify heritage tourists within regional or community tourism market surveys.

A less comprehensive, but perhaps more realistic approach is for heritage areas to play more of a coordinating role, relying on individual partners to survey their own visitors and providing mechanisms for combining and sharing results. Recommended survey instruments and sampling procedures can be developed based on the experience at the seven heritage areas that have conducted surveys. Some consistency in questionnaires and methods is necessary in order to combine results across studies at individual facilities and provide a more general picture of visitors to each heritage area.

For monitoring purposes, a limited set of indicators should be selected and measured consistently at each facility over time. First priority should be information necessary to monitor the number and types of visitors. This requires systematic counting procedures at all key facilities and periodic visitor surveys for calibrating counts and identifying distinct visitor segments. Estimates of average party sizes and length of stay are useful for converting visit counts between a person and party/trip or party night basis. Identifying visitor origins (e.g. zip codes) and lodging types help to identify distinct market segments. If visitor counts at distinct facilities are to be added up, some measure of the extent of multiple counting of visitors will be needed. A measure of trip purpose and the importance of heritage area attractions in generating trips is also crucial to attributing spending and impacts to heritage programs and understanding their role in the regional tourism picture. The basic variables identified here can be covered in a short one page/ 5-minute interview conducted on-site.

Surveys get longer and more complicated when additional marketing and evaluation questions are added. The seven studies summarized here included a variety of marketing and evaluation questions. Beyond basic demographic characteristics, it is more difficult to enforce consistency in marketing and evaluation questions across distinct facilities and programs. There can also be confusion among respondents over which programs or facilities they are evaluating (those at the facility where they are interviewed or the heritage area more generally). These topics therefore may be better left for individual facilities to address.

## **Economic Impacts**

The money generation model (MGM2) is readily extended to estimate the local economic impacts of heritage areas. As heritage areas attract a broad spectrum of visitors, spending profiles of heritage area visitors are similar to those of tourists in general. The MGM2 model can be reduced to four primary segments of heritage area visitors: local residents, visitors on day trips, overnight visitors staying in hotels, motels, B&B's and overnight visitors staying with friends or relatives in the area. Differences in visitor spending across heritage areas can be explained by the mix of visitors attracted and local prices and spending opportunities.

The greatest constraint to estimating economic impacts of heritage area visitors is the lack of reliable visitor counts, including methods for adjusting for multiple counting of the same visitors across individual facilities and capturing heritage tourists that may not enter any attractions where visitors are counted. For Essex NHA, we roughly assumed that uncounted visitors would roughly offset those who were counted more than once during their trip. For heritage areas without visitor counts, impacts were estimated on a per 10,000 party trip basis. These marginal impact estimates can be used to assess the relative impacts of attracting different kinds of visitors and can be applied to evaluate programs that increase trips to the area.

Some tourists come to an area primarily to visit one or more heritage attractions, while for others heritage attractions represent additional things to do while in the area for other reasons. While distinguishing tourists based on whether the trip was primarily to visit heritage area attractions or not is sometimes difficult, this is an important distinction for estimating economic impacts and also for designing and evaluating marketing efforts. We estimate that about two thirds of the spending by heritage area visitors would be lost to the local region in the absence of these facilities and programs. This percentage will vary across heritage areas depending on the role and importance of these attractions in generating trips to the area.

The largest economic effects are from attracting overnight visitors staying in local hotels, motels, B&B's and other commercial lodging. Programs that package lodging with a variety of heritage attractions and programs can help stimulate these types of trips. Larger volumes of day trips and overnight stays with friends or relatives are required to generate similar economic impacts.

Contributions to tourism activity/economic development is one important objective of heritage area programs; however, the greater values of these programs will often be their contributions to historic and cultural preservation, education, and community identity and partnerships. These contributions should also be assessed and valued to provide a more complete picture of the contributions of heritage areas to local communities and the nation.

## **Evaluations**

As national heritage areas are relatively recent developments, awareness of many heritage areas is low, even among visitors to heritage facilities. Awareness among the general population can be expected to be lower. Marketing efforts and information programs of heritage areas should therefore be evaluated first in terms of communication objectives. For example:

- What percentage of visitors or the market area more generally are aware of the heritage area or aware of individual facilities or programs?
- How many can recall seeing heritage area advertising or brochures? How many can identify logos or names?
- What is the awareness level among target market segments – local residents, tourists to the area, visitors to particular facilities, heritage-related organizations, school

groups and tour organizers?

- Where and how do visitors find out about heritage area programs and facilities?
- How does the heritage area contribute to the overall image of the region as both a place to live and work and for attracting tourists?

Demonstrating impacts of programs on behaviors, including spending, is more difficult. Heritage areas would like to measure the change in the number of visitors and local economic activity that can be attributed to their programs. A strict impact analysis would make this assessment **with versus without** the national heritage area programs. As noted above, the array of activities embodied in heritage area “programs” is too complex and interwoven with partners to evaluate based on just tracking changes in visitors or spending over time.

There is no simple way to sort out what changes may have occurred in these regions without heritage area designations. There are also difficulties in attributing changes in visitors or spending to specific programs of the heritage area versus the marketing efforts of partners or state and regional tourism organizations, more generally. Changes in travel patterns due to weather, airfares, gasoline prices, changing demographics, security concerns or general consumer preferences confound attempts to draw conclusions from before-after data. For a clearer cause-effect analysis, evaluations must be narrowed to individual programs that can be more directly tied to the observed changes. For example, one can more readily evaluate impacts of a particular promotional program or a new facility or special event.

If a heritage area sponsors, coordinates and promotes a special event, visitors to the event and their spending can be attributed to the individual program, as long as one accounts for substitutions (see Crompton et. al. 2001). Similarly, if a heritage area sends out 10,000 direct mail advertisements and generates 500 new trips to the area, it can take credit for these visits and the associated spending. The best way to evaluate individual programs or marketing activities is to build evaluation measures into the program itself. For example, the effectiveness of a coupon book in increasing visits to smaller, less well-known sites can be tracked by counting redeemed coupons at cooperating sites.

Like most programs of heritage areas, evaluation studies will require close cooperation of key partners. Bottom-up approaches might begin with existing evaluation programs of individual partners or programs, seeking to communicate and extend successful evaluations of individual facilities and programs to those that may lack systematic evaluations. Adding one or two broader questions to more narrowly focused evaluation efforts of individual facilities can begin to track awareness of the overall heritage area or its success in linking distinct programs together. A top down approach might involve partnering with local or regional tourism organizations to better measure the size and importance of heritage tourists to an area.

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### Appendix 1. Sample Sizes & Sampling Locations by Heritage Area

Heritage Area (Sampling Period)	On-site	Mailback
<b>Augusta Canal NHA (August – October, 2003)</b>		
Headgates	128	-
Olmstead	104	-
Pumping station	125	-
<u>Interpretive Center</u>	<u>105</u>	-
Total	462	-
<b>Cane River NHA (July – December, 2003)</b>		
Natchitoches Tourist Commission Site	162	33
Melrose Plantation	89	29
Fort St. Jean Baptiste State Historic Site	50	14
<u>Oakland Plantation, CRCNHP</u>	<u>98</u>	<u>31</u>
Total	399	107
<b>Essex NHA (July – December, 2003)</b>		
Gloucester Visitor Welcoming Center	93	23
Ipswich Visitor Center	6	1
Wenham Museum	10	3
Joppa Flats Visitor Center	12	2
Lawrence Heritage State Park	2	0
Newburyport Maritime Society Custom House	10	2
House of the Seven Gables	67	12
Marblehead Chamber of Commerce	5	0
Peabody Essex Museum	32	10
<u>Salem Regional Visitor Center</u>	<u>111</u>	<u>12</u>
Total	348	65
<b>MotorCities NHA (June – September, 2002)</b>		
Alfred P. Sloan Museum	98	16
Detroit Historical Museum	23	6
Henry Ford Museum & Greenfield Village	353	127
Michigan Historical Museum	182	26
Miller Motors	12	2
Nankins Mills Interpretive Center	91	2
Walker Tavern Historic Site	16	5
<u>Walter P. Chrysler Museum</u>	<u>274</u>	<u>60</u>
Total	1,049	244

## Notes.

<sup>a</sup> The Silos & Smokestacks NHA visitor survey collected 436 cases from 39 sampling locations between July 2003 and May 2004.

<sup>b</sup> Limited information was available about the sampling locations for the Lackawanna Valley NHA visitor survey (conducted during July and August, 2003). Ninety percent of the Ohio & Erie Canal NHC visitor surveys were gathered at one site (Zoar Village).

**Appendix 2: Definitions of Economic Terms**

Term	Definition
Sales	Sales of firms within the region to park visitors.
Jobs	The number of jobs in the region supported by visitor spending. Job estimates are not full time equivalents, but include part time and seasonal positions.
Personal income	Wage and salary income, proprietor’s income and employee benefits.
Value added	Personal income plus rents and profits and indirect business taxes. As the name implies, it is the value added by the region to the final good or service being produced. Value added can also be defined as the final price of the good or service minus the costs of all of the non-labor inputs to production.
Direct effects	Direct effects are the changes in sales, income and jobs in those business or agencies that directly sell goods or services to visitors.
Secondary effects	Secondary effects are the changes in economic activity in the region resulting from the re-circulation of money spent by visitors. Secondary effects include both indirect and induced effects.
Indirect effects	Changes in sales, income and jobs within industries that supply goods and services to businesses that sell directly to visitors. For example, linen suppliers benefit from visitor spending at lodging establishments.
Induced effects	Changes in economic activity in the region resulting from household spending of income earned through direct or indirect effects. For example, motel and linen supply employees who live in the region spend their income on housing, groceries, education, clothing and other goods and services creating sales and jobs in these sectors.
Total effects	Sum of direct, indirect and induced effects.