

**ECONOMIC IMPACTS OF HISTORIC PRESERVATION  
IN MASSACHUSETTS**

*RESEARCH FUNDING AND OVERSIGHT*

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**EXECUTIVE SUMMARY**

## STUDY OBJECTIVE AND ORGANIZATION

This study examines the many substantial economic effects of historic preservation in Massachusetts. It is one of the more detailed statewide analyses of the economic impacts of historic preservation.

The study examines the *total* economic effects of historic preservation; these encompass both the *direct* and *multiplier* effects. The *direct impact* component consists of labor and material purchases made specifically for the preservation activity. The *multiplier* effects incorporate what are referred to as *indirect* and *induced* economic consequences. The *indirect impact* component consists of spending on goods and services by industries that produce the items purchased for the historic preservation activity. The *induced impact* component focuses on the expenditures made by the households of workers involved either directly or indirectly with the activity. To illustrate, lumber purchased at a hardware store for historic rehabilitation is a direct impact. The purchases of the mill that produced the lumber is an indirect impact. The household expenditures of the workers at both the mill and the hardware store are induced impacts.

Economists estimate direct and multiplier effects using an input-output (I-O) model. This study specifies the total economic effects of the major components of historic preservation in Massachusetts through a state-of-the-art I-O model developed by the Center for Urban Policy Research (CUPR) for the National Park Service (NPS). The model is termed the Preservation Economic Impact Model (PEIM). This study applies the PEIM to examine two critical components of historic preservation: *historic rehabilitation* and *heritage tourism*.

The results of PEIM model include many fields of data. The fields most relevant to this study are the total impacts of the following:

- **Jobs:** *Employment, both part- and full-time, by place of work, estimated using the typical job characteristics of each industry.* (Manufacturing jobs, for example, tend to be full-time; in retail trade and real estate, part-time jobs predominate.) All jobs generated at businesses in the region are included, even though the associated labor income of in-commuters may be spent outside of the region. In this study, all results are for activities occurring within the time frame of one year. Thus, the job figures should be read as job-years; i.e., several individuals might fill one job-year on any given project.
- **Income:** *“Earned” or “labor” income—specifically, wages, salaries, and proprietors’ income.* Income does not include nonwage compensation (i.e., benefits, pensions, or insurance), transfer payments; or dividends; interest, or rents.
- **Wealth:** *Value added—the equivalent at the subnational level of gross domestic product (GDP).* At the state level, this is called gross state product (GSP). Value added is widely accepted by economists as the best measure of economic well-being.

It is estimated from state-level data by industry. For a firm, value added is the difference between the value of goods and services produced and the value of goods and nonlabor services purchased. For an industry, therefore, it is composed of labor income (net of taxes); taxes; nonwage labor compensation; profit (other than proprietors' income); capital consumption allowances; and net interest, dividends, and rents received.

- **Taxes:** *Tax revenues generated by the activity.* The tax revenues are detailed for the federal, state, and local levels of government. Totals are calculated by industry.

*Federal tax* revenues include corporate and personal income, social security, and excise taxes, estimated from the calculations of value added and income generated.

*State tax* revenues include income, excise, sales, and other state taxes, estimated from the calculations of value added and income generated (e.g., purchases by visitors).

*Local tax* revenues include payments to substate governments, mainly through property taxes on new worker households and businesses. Local tax revenues can also include sales and other taxes.

The exposition includes four chapters and two appendices. The first chapter sets the overall perspective and is followed by two chapters that analyze, in tandem, the direct and the total effects of Massachusetts historic rehabilitation (chapter 2) and Massachusetts heritage tourism (chapter 3). Chapter 4 summarizes the findings, sets them in perspective, and shows how the study's findings and analytic procedures can be used by others and inform policy discussion. The four chapters are followed by appendices that consider relevant methodology and literature.

The major findings of the study are highlighted below and also synopsisized in summary exhibit 1. In all instances, impacts are shown for the latest year(s) for which complete information was available at the time of the analysis.

**SUMMARY EXHIBIT 1**

**Summary of the Annual Economic Impacts of Historic Preservation in Massachusetts**

MASSACHUSETTS DIRECT EFFECTS	I	II	<i>Total Examined Economic Impacts (Sum I-II)</i>	
	<i>Historic Rehabilitation</i> \$2.3 billion historic rehabilitation results in:	<i>Heritage Tourism</i> \$2.5 billion travel-attributed spending, results in:		
	<b>National Total (Direct and Multiplier) Impacts</b>			
↓	Jobs	67,233	67,121	134,354
NATIONAL TOTAL IMPACTS (DIRECT AND MULTIPLIER)	Income	\$2,196 million	\$ 1,631 million	\$3,827 million
	GDP*	\$2,919 million	\$ 2,433 million	\$5,352 million
	Taxes: <i>Federal</i>	\$395 million	\$ 330 million	\$725 million
	<i>Local/State</i>	\$310 million	\$ 371 million	\$681 million
	Tax subtotal	\$705 million	\$ 701 million	\$1,406 million
↓	<b>In-State Massachusetts Total (Direct and Multiplier) Impacts</b>			
MASSACHUSETTS PORTION OF NATIONAL TOTAL IMPACTS	Jobs	33,361	53,217	86,578
	Income	\$1,333million	\$1,224 million	\$2,557 million
	GSP*	\$1,651 million	\$1,803 million	\$3,454 million
	Taxes: <i>Federal</i>	\$223 million	\$258 million	\$481 million
	<i>Local/State</i>	\$162 million	\$301 million	\$463 million
	Tax subtotal	\$385 million	\$559 million	\$944 million
	In-state wealth*	\$1,428 million	\$1,545 million	\$2,973 million

Source: Rutgers University, Center for Urban Policy Research, 2002.

\*GDP=Gross Domestic Product; GSP = Gross State Product; In-state wealth = GSP less federal taxes.

Note: Totals may differ from indicated subtotals because of rounding.

## ECONOMIC IMPACTS OF MASSACHUSETTS HISTORIC REHABILITATION

- In 2000, an estimated total of \$6.9 billion was spent on the rehabilitation of existing residential and nonresidential buildings in Massachusetts.
- Of the \$6.9 billion spent on rehabilitation, an *estimated* \$2.29 billion, or about one-third of the total, was spent on historic properties (older properties that were on, or might qualify for, national, state, and/or local registers of historic sites). An additional *estimated* \$10 million was spent on rehabilitating historic public buildings, resulting in an *estimated* \$2.3 billion in total historic rehabilitation.

### SUMMARY EXHIBIT 2 Estimated Rehabilitation Total and Historic Building Rehabilitation in Massachusetts (2000)

Component	Estimated Total Rehabilitation (in \$ millions)	Estimated Historic Rehabilitation (in \$ millions)	Historic Rehabilitation as % of Total Rehabilitation
Private			
Residential	\$2,125.8	\$636.6	29.9%
Nonresidential	<u>\$4,792.6</u>	<u>\$1,657.6</u>	34.6%
Total private	\$6,918.4	\$2,294.2	33.2%
Public		<u>\$10.0</u>	
Total		\$2,304.2	

- The direct effects of historic rehabilitation are translated into multiplier effects, which encompass, as noted, such dimensions as *jobs* (employment by place of work), *income* (total wages, salaries, and proprietor's income), *gross domestic product* or GDP (total wealth accumulated, referred to at the state level as gross state product or GSP), *taxes* (federal, state, and local), and *in-state wealth* (GSP less "leakage" in the form of federal taxes).
- The total national economic impacts from the \$2.3 billion spent on statewide historic rehabilitation included the following: 67,233 new jobs; \$2.2 billion in income; \$2.9 billion in gross domestic product; and \$704 million in taxes. Massachusetts garnered slightly more than half of these economic benefits and, as a result, captured 33,361 jobs; \$1.4 billion in income; \$1.7 billion in gross state product; \$385 million in taxes (including \$162 million in state-local taxes); and \$1.4 billion in in-state wealth. The other effects were distributed outside Massachusetts.

**SUMMARY EXHIBIT 3**  
**Total Economic Impacts of the Annual Massachusetts**  
**Historic Building Rehabilitation (\$2.3 Billion)**

	<b>In Massachusetts</b>	<b>Total (U.S.)</b>
Jobs (person years)	33,361	67,233
Income (\$millions)	1,333	2,196
GDP/GSP <sup>a</sup> (\$millions)	1,651	2,919
Total taxes (\$millions)	385	705
Federal (\$millions)	223	395
State/Local (\$millions)	162	310
In-State wealth (\$millions) (GSP minus federal taxes)	1,428	

<sup>a</sup>GDP/GSP = Gross Domestic Product/Gross State Product.

- The economic benefits from the historic rehabilitation are enjoyed throughout the Massachusetts economy. For instance, of the 33,361 in-state jobs, the construction, retail, and services industries captured 14,632, 6,571, and 4,418 jobs, respectively.

**ECONOMIC IMPACTS OF MASSACHUSETTS HERITAGE TOURISM**

- During the 1998 through 2000 period, an estimated annual 4.3 million heritage person-trips were made on average in Massachusetts. The 4.3 million heritage person-trips accounted for about 1 in 6 (17.3 percent) of all 1998–2000 annual person-trips (25.1 million) in Massachusetts.

**SUMMARY EXHIBIT 4**  
**Annual Average Person-Trip Distribution for Massachusetts (1998 –2000)**

<b>Traveler Trip</b>	<b>All Massachusetts Person-Trips (in millions)</b>	<b>Heritage Person-Trips<sup>a</sup> (in millions)</b>	<b>Heritage as Percent of All Massachusetts Travel</b>
Day trip	9.0	0.22	2.5%
Overnight	16.1	4.1	25.6%
All trips (day and overnight)	25.1	4.3	17.3%

<sup>a</sup>Defined as a business or leisure traveler indicating “visit historic site” or other related trip purpose.

- Compared with all Massachusetts travelers, heritage travelers, on average, spend considerably more. Furthermore, a much higher share of Massachusetts’ heritage travelers come from out of state (90 percent for the heritage group versus 79 percent for all Massachusetts travelers). These traits combined accentuate the economic contribution of the Massachusetts heritage traveler.

**SUMMARY EXHIBIT 5**  
**Annual Average Spending per Person-Trip for Massachusetts (1998-2000)**

Trip Type	All Massachusetts Travelers	Heritage Travelers	Heritage as % of All Massachusetts Travelers
Day trip	\$335	\$411	123%
Overnight	\$584	\$740	127%

- Direct heritage-attributed expenditures (the share of total traveler outlays that is heritage-associated) by Massachusetts heritage day-trippers and overnight visitors averaged an estimated \$2.5 billion annually over the 1998 through 2000 period.

**SUMMARY EXHIBIT 6**  
**Annual Average Heritage Trip Spending for Massachusetts (1998-2000)**

Trip Type	Heritage Trip Spending
Day trips	\$73.5 million
Overnight Trips	<u>\$2,439.0 million</u>
All Trips (Day and Overnight)	\$2,512.5 million

- The total annual economic impacts from the \$2.5 billion in annual spending by Massachusetts heritage travelers, encompassing both direct and multiplier effects, included, at the national level, the following: 67,000 jobs; \$1.6 billion in income; \$2.4 billion in gross domestic product; and \$701 million in taxes. Massachusetts received a large share of these gains. On an annual basis from the heritage tourism, Massachusetts realized 53,000 jobs; \$1.2 billion in income; \$1.8 billion in gross state product; \$559 million in taxes (including \$301 million in state-local taxes); and annual in-state wealth creation of about \$1.5 billion.

**SUMMARY EXHIBIT 7**  
**Total Economic Impacts of the Annual Massachusetts  
Heritage Tourism Spending (\$2.5 Billion Spent)**

	In Massachusetts	Total (U.S.)
Jobs (person years)	53,217	67,121
Income (\$millions)	1,224	1,631
GDP/GSP (\$millions)	1,803	2,434
Total taxes (\$millions)	559	701
Federal (\$millions)	258	330
State/Local (\$millions)	301	371
In-state wealth (\$millions) (GSP minus federal taxes)	1,545	

\*GDP/GSP = Gross Domestic Product/Gross State Product.

- The economic benefits of the Massachusetts heritage tourism are enjoyed throughout the Massachusetts economy. For instance, of the \$1.8 billion in gross state product, the retail trade, services, manufacturing, and transportation industries garnered \$623 million, \$561 million, \$170 million, and \$71 million, respectively.

## SUMMARY OF BENEFITS

In sum, historic preservation in Massachusetts is not just important culturally and aesthetically, it also fosters significant economic activity and benefits in its own right.

- Annual direct economic effects, calculated conservatively, include \$2.3 billion in historic rehabilitation spending and \$2.5 billion in heritage tourism spending—for a total of \$4.8 billion annually.
- When multiplier effects are taken into account from the \$4.8 billion annual investment, the total annual impacts to the nation include a gain of about 134,000 jobs; \$3.8 billion in income; \$5.4 billion in GDP; and \$1.4 billion in taxes. The in-state Massachusetts benefits include a gain of about 87,000 jobs; \$2.6 billion in income, \$3.5 billion in GSP, \$944 million in taxes (including \$463 million in state/local taxes), and \$1.4 billion in in-state wealth (Summary Exhibit 1).
- A further detailed breakdown of the economic benefits from the \$4.8 billion in direct historic preservation spending is shown in Summary Exhibit 8 (national impacts) and Summary Exhibit 9 (in-state or Massachusetts-specific effects). The exhibits show that although all sectors of the economy benefit, many of the 134,354 new jobs at the national level are found in such industries as retail trade (50,311 jobs), services (25,674 jobs), construction (17,968 jobs), and manufacturing (16,469 jobs). National income and GDP effects are also clustered in the above sectors (Summary Exhibit 8).
- A similar pattern is observed for Massachusetts (Summary Exhibit 9). Of the 86,578 Massachusetts jobs annually supported by historic preservation, 38,865 are in retail trade, 17,299 are in services and 15,238 are in construction. The total in-state income gain of \$2.6 billion resulting from historic preservation concentrates in such industries as construction (\$718 million), retail trade (\$668 million), and services (\$511 million). Yet, because of the interconnectedness of the Massachusetts economy, *all* sectors benefit. For example, historic preservation supports about 1,100 agricultural-mining jobs in Massachusetts, with associated income of about \$26 million.
- Given the powerful economic pump-priming effect of historic preservation, public programs to foster preservation can realize sizable economic development gains.

**SUMMARY EXHIBIT 8**  
**National Economic and Tax Impacts of Annual**  
**Massachusetts Historic Preservation Activity (\$4.8 billion)**

	Economic Component		
	Employment (jobs)	Income (\$000)	Gross Domestic Product (\$000)
<b>I. TOTAL EFFECTS (Direct and Indirect/Induced)*</b>			
<b>Private</b>			
1. Agriculture	3,343	42,607.6	57,597.5
2. Agri. Serv., Forestry, & Fish	902	16,830.7	26,499.4
3. Mining	714	40,079.3	78,707.1
4. Construction	17,968	690,577.6	777,651.3
5. Manufacturing	16,469	648,074.6	1,098,243.3
6. Transport. & Public Utilities	4,275	192,696.7	333,059.0
7. Wholesale	3,450	178,453.5	196,280.8
8. Retail Trade	50,311	834,989.3	938,403.6
9. Finance, Ins., & Real Estate	10,743	399,353.2	752,712.7
10. Services	25,674	763,840.6	1,063,689.3
Private Subtotal	133,848	3,807,503.1	5,322,844.0
<b>Public</b>			
11. Government	506	18,960.8	29,748.6
Total Effects (Private and Public)	134,354	3,826,463.9	5,352,592.7
<b>II. DISTRIBUTION OF EFFECTS/MULTIPLIER</b>			
1. Direct Effects	63,180	1,768,822.5	2,342,323.4
2. Indirect and Induced Effects	71,174	2,057,641.4	3,010,269.3
3. Total Effects	134,354	3,826,463.9	5,352,592.7
4. Multipliers (3/1)	2.13	2.16	2.29
<b>III. COMPOSITION OF GROSS STATE PRODUCT</b>			
1. Wages—Net of Taxes			3,603,267.3
2. Taxes			
a. Local/State			680,770.5
b. Federal			
General			415,834.8
Insurance Trusts			309,214.5
Federal Subtotal			725,049.3
c. Total taxes (2a+2b)			1,405,819.9
3. Profits, dividends, rents, and other			343,505.5
4. Total Gross State Product (1+2+3)			5,352,592.7
<b>EFFECTS PER MILLION DOLLARS OF INITIAL EXPENDITURE</b>			
Employment (Jobs)			28.0
Income			797,180
Local/State Taxes			141,827
Gross State Product			1,115,123
Note: Detail may not sum to totals due to rounding.			
*Terms:			
Direct Effect (State)—the proportion of direct spending on goods and services produced.			
Indirect Effects—the value of goods and services needed to support the provision of those direct economic effects.			
Induced Effects—the value of goods and services needed by households that provide the direct and indirect labor.			

**SUMMARY EXHIBIT 9**  
**In-State Economic and Tax Impacts of Annual**  
**Massachusetts Historic Preservation Activity (\$4.8 billion)**

	Economic Component		
	Employment (jobs)	Income (\$000)	Gross State Product (\$000)
<b>I. TOTAL EFFECTS (Direct and Indirect/Induced)*</b>			
<b>Private</b>			
1. Agriculture	368	1,520.8	3,640.2
2. Agri. Serv., Forestry, & Fish	535	11,383.2	16,150.6
3. Mining	210	12,721.5	15,920.0
4. Construction	15,328	717,701.4	818,333.4
5. Manufacturing	5,760	223,356.4	382,356.3
6. Transport. & Public Utilities	1,866	87,212.4	135,733.1
7. Wholesale	1,392	87,501.8	90,909.5
8. Retail Trade	38,865	668,182.6	754,201.3
9. Finance, Ins., & Real Estate	4,700	225,396.4	459,558.2
10. Services	17,299	511,481.1	760,961.4
Private Subtotal	86,326	2,546,457.6	3,437,763.9
<b>Public</b>			
11. Government	251	10,228.8	15,797.8
Total Effects (Private and Public)	86,578	2,556,686.4	3,453,561.8
<b>II. DISTRIBUTION OF EFFECTS/MULTIPLIER</b>			
1. Direct Effects	60,799	1,836,322.9	2,411,180.8
2. Indirect and Induced Effects	25,779	720,363.5	1,042,381.0
3. Total Effects	86,578	2,556,686.4	3,453,561.8
4. Multipliers (3/1)	1.42	1.39	1.43
<b>III. COMPOSITION OF GROSS STATE PRODUCT</b>			
1. Wages—Net of Taxes			2,399,984.6
2. Taxes			
a. Local/State			463,022.1
b. Federal			
General			277,252.4
Insurance Trusts			203,331.1
Federal Subtotal			480,583.5
c. Total taxes (2a+2b)			943,605.6
3. Profits, dividends, rents, and other			109,971.6
4. Total Gross State Product (1+2+3)			3,453,561.8
<b>EFFECTS PER MILLION DOLLARS OF INITIAL EXPENDITURE</b>			
Employment (Jobs)			18.0
Income			532,643
Local/State Taxes			96,463
Gross State Product			719,492

Note: Detail may not sum to totals due to rounding.

\*Terms:

Direct Effect (State)—the proportion of direct spending on goods and services produced.

Indirect Effects—the value of goods and services needed to support the provision of those direct economic effects.

Induced Effects—the value of goods and services needed by households that provide the direct and indirect labor.