HISTORIC PRESERVATION
A RESPONSIBILITY OF EVERY FEDERAL AGENCY

Measuring the Economic Impact of Federal Historic Properties

An Introduction to the Impact of Federal Stewardship of Historic Properties on Economic Vitality

Information Paper
prepared by

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Executive Summary

Executive Order 13287, Preserve America, signed in the spring of 2003, emphasizes using Federal historic properties to enhance economic vitality of communities. Yet, no specific guidance was provided to Federal agencies on *how* to measure the impact of their stewardship decisions on economic growth. This paper was prepared as a starting point for Federal preservation officers and historic preservation staff at Federal agencies to understand how the historic properties managed by the Federal government can contribute to local economies.

The first part of the paper discusses the difficulties in measuring the economic impact of historic preservation. As an example, historic preservation activities are found in many of the broadly defined sectors of the economy, including construction, real estate, professional, scientific and technical services, as well as in arts, entertainment and recreation. But because historic preservation data is not aggregated into a single industrial code within commonly collected economic data, it remains a largely "hidden industry."

The second part of the paper provides a three-dimensional analytical framework that Federal managers should consider in analyzing the economic impact of their agency's historic preservation programs. The three dimensions are: economic activities, economic benefits, and economic effects. By visualizing these as the three dimensions of a cube, the relationship of one to another can be seen. Four types of historic preservation activities -- rehabilitation and restoration, operation and maintenance, downtown revitalization, and heritage tourism – result in tangible economic benefits including job creation, income creation, tax revenues, value-added, and property values. These benefits may be further categorized into the three components of the multiplier effect – a term used by economists to describe how successive transactions ripple through the economy. The first economic effect is the direct effect – an infusion of money into the local economy for goods and services directly related to the preservation activity. But the *total* economic impact also includes indirect and induced effects of this initial spending because suppliers of these goods and services will make additional purchases and workers will spend their wages. To illustrate how the cube shows the interconnectedness of these aspects, data from a study of the State of Florida was used. In general, as more pieces of the cube are included in a study and quantified, the more that the *true* extent of a historic preservation project's impact on the economy is known.

The third part of the paper examines the historic preservation activities undertaken by Federal agencies and how they can generate positive effects. The activities described include: compliance, cost savings, good will, and stewardship. The final part of the report identifies the difficulties in measuring the impact of Federal historic preservation activities and continues with a discussion

of sources of economic data in Federal projects that might be used for future analytical studies. Currently, there is very little literature available regarding the economic impact of Federal historic preservation activities. As a consequence, the true economic value of Federal historic properties is unknown and underreported. The paper urges Federal agencies to undertake economic analysis in order for decision-makers to understand how much Federal historic preservation investments will contribute to economic vitality and so that Federal historic properties will be recognized as an economic asset. Without more economic analyses that gauge the contribution of Federal historic properties to local, state, and national wealth, these properties are at risk.

Executive Order 13287

By signing Executive Order (E.O.) 13287, *Preserve America*, in the spring of 2003, President George W. Bush called upon all Federal agencies to use the historic properties under their control in ways that contribute "to the vitality and economic well-being of the Nation's communities . . . ." In the same executive order, the President charged the National Park Service with providing appropriate information and training to Federal agencies on the stewardship of historic properties.

> "The activities of Federal land- and property-managing agencies have a combined impact on hundreds of millions of acres of public land, hundreds of thousands of buildings, and other holdings."
>
> Advisory Council on Historic Preservation, *Caring for the Past, Managing for the Future: Federal Stewardship and America's Historic Legacy*

This paper responds to those mandates by providing an overview of how the preservation and use of federally controlled historic properties contribute to economic activity. It sets forth the basic economic framework and summarizes existing information that may help agencies measure the economic impact of their preservation activities. Based on a review of economic impact studies in the field of historic preservation, it provides an analytical approach to help Federal managers measure the economic value of their preservation programs, and examines existing information that may help them do so. It describes ways in which historic preservation can have an impact on local, regional, and national economies. The paper also shows how economic analysis can be a useful tool in quantifying the economic impact of Federal investments in historic preservation. There are many writings on historic preservation economics and a few noteworthy works are listed in the appendix to provide a starting point for those who want more detailed information.

The Federal government—with a vast portfolio of real property under its control—holds the distinction of being the predominant steward of this Nation's historic and archaeological resources. "[T]he Federal Government owns, manages, or administers more than 665 million acres of land and 430,000 buildings. A great many of these public assets have historic or cultural value of major significance."[1] Many historic properties have been set aside and protected as national park units, public museums, or conservation lands to help preserve the national heritage. The National Park Service alone preserves over 60,000 archaeological sites.

[1] Advisory Council on Historic Preservation, *Caring for the Past, Managing for the Future: Federal Stewardship and America's Historic Legacy*, March 2001, p. 7.

Yet national park units comprise only slightly more than 11 percent of Federal lands. “The remaining publicly owned and administered land and resources under the trusteeship of various departments and agencies account for nearly a third of the land area of the U.S.”[2]

While historic places are traditionally valued for their contribution to cultural heritage, their economic importance cannot be ignored. The sheer extent of Federal historic property holdings demonstrates the economic significance of Federal stewardship of cultural heritage. Effective management of historic assets for their economic value is should be central to agency cultural programs. With creative and careful use of historic properties under their control, Federal agencies contribute to the economic well being of communities in real and meaningful ways.

The National Historic Preservation Act (NHPA) of 1966, as amended, States that ”the increased knowledge of our historic resources, the establishment of better means of identifying and administering them, and the encouragement of their preservation will improve the planning and execution of Federal and federally assisted projects and will assist economic growth and development.”

NHPA mandates that the Federal government “administer federally owned, administered, or controlled prehistoric and historic resources in a spirit of stewardship for the inspiration and benefit of present and future generations.” Management of Federal historic resources as economic assets will carry out these mandates.

> “The Federal Government shall recognize and manage the historic properties in its ownership as assets that can support department and agency missions while contributing to the vitality and economic well-being of the Nation’s communities.”
>
> Executive Order No. 13287. March 3, 2003.

Executive Order No. 13287, *Preserve America,* challenges Federal agencies to do more with their historic properties. A key goal of *Preserve America* is to support the economic vitality of our nation’s communities through use of its heritage assets. The initiative offers technical and financial assistance to Federal agencies that can be used to “bolster local heritage preservation efforts, support better integration of heritage preservation and economic development, and foster and enhance intergovernmental and public-private partnerships to accomplish these goals.”[3]

This is not the first Executive Order that links Federal historic properties to economic development. Downtown revitalization is addressed in President Clinton’s 1996 Executive Order No. 13006, *Locating Federal Facilities on Historic Properties in Our Nation's Central Cities*. That Executive Order reaffirms the Federal government's commitment to historic preservation leadership as articulated in NHPA by calling upon Federal agencies to give first consideration to historic properties in historic districts when locating Federal facilities. If no such

[2] Ibid.
[3] www.preserveamerica.gov/federalsupport.html

properties are available, Federal agencies are to consider other developed or undeveloped sites within historic districts, and then historic properties outside of historic districts. Other Executive Orders and public laws affect how Federal agencies can acquire, manage, or dispose of real property. These include E.O. 13327, which concerns management of Federal assets, the Federal property and Administrative Services Act of 1949, and the Public Buildings Cooperative Use Act of 1976.

Fundamentals of Macroeconomics

Historic preservation and economics: – The relationship between these separate academic disciplines is, at first appearances, ambiguous. Often the economics of historic preservation is interpreted simply as "How can I finance a preservation project? What kinds of tax incentives are available? What will be the effect on property value?" In reality, the economics of historic preservation is a much more comprehensive topic than questions about financing, taxation, or valuation suggest.

A standard textbook definition of economics is the study of the allocation of scarce resources among competing uses. It is easy to extend this definition to the decision-making process for cultural resources. Resource allocation decisions on how to preserve, use, or even destroy a cultural resource, whether historic or archaeological, *are* economic decisions. There are competing uses for the cultural resource, each with costs and benefits. Federal agencies, too, have scarce resources both in funding and personnel. Economic theory can be further extended to describe how the use of a cultural resource generates various economic activities and impacts the local, regional, and national economies. Economists use sophisticated, precision-driven economic models to measure the total impact of an activity, such as historic preservation. This paper, however, seeks not to definitively quantify these impacts but rather to describe *the means by which* historic preservation activities impact economic growth. The paper begins by considering how economies work.

Economies are best when output is increasing, unemployment is low, and inflation is held at bay. Because the state of the national economy directly affects the well being of 281 million Americans, economics has worked its way into our daily conversation. Frequent reports on the national news present leading economic indicators. Unemployment rates, stock market fluctuations, and changes (or even the *possibility* of changes) to the Federal Reserve's interest rates become important topics during recessions. Economic policy plays heavily into Congressional and Presidential politics. Debates about taxation and spending define major distinctions between political parties.

An economy, whether national or local, is a loosely contained system of production and consumption, labor, and capital markets. Understanding how these markets interact with each other to create a thriving economy is not an easy task and is the subject of much theoretical debate. Nobel Laureate Joseph Stiglitz has said that he chose the field, in part, for the intellectual challenges of understanding what makes economies work and what makes economies not work.[4]

[4] "Press Briefing by Nobel Laureate and former World Bank Chief Economist Joseph Stiglitz," October 11, 2001. Joseph Stiglitz served on President Clinton's Council of Economic Advisors. In 2001, he won, with George Akerlof and A. Michael Spence, the Nobel Prize in Economics for their work on the analysis of markets with asymmetric information.

To carry out Executive Order 13287, one needs to understand how economies work in order to understand what is necessary for economic systems to achieve economic development and sustained growth.

The study of macroeconomics is concerned with the behavior of the economy as a whole, with recoveries and recessions, the economy's total output of goods and services, the growth of output, rates of inflation and unemployment, the balance of payments, and exchange rates. Three broad measures are used to assess the health of the national economy:

- changes in output
- changes in inflation
- changes in unemployment.

These three measures are related through the business cycle, which is defined as the pattern of expansion ("recovery") and contraction ("recession"). In a recovery stage (heading upwards to the peak of the cycle), economic activity is high, output is increasing, unemployment is declining, and inflation rates tend to be rising.

If the free market system can be called the engine of economic growth, intervention by the Federal government through fiscal and monetary policies is its steering wheel. Policymakers can affect the national economy through two broad classes of policies: fiscal and monetary.

The Federal Reserve Board controls monetary policy. The tools of the Fed include changes in the stock of money; changes in the interest (or discount) rate, at which the Fed loans money to banks; and some controls over the banking system. By contrast, fiscal policy is under the control of Congress and usually is initiated by the Executive branch of the government. The key instruments of fiscal policy are tax rates and government spending. Through monetary and fiscal policies, policymakers attempt to stabilize the economy by diminishing fluctuations in the business cycle.

Ensuring the economic health of their communities is a primary function of elected leaders, even at the local level. Local governments are concerned with providing services and increasing the tax base by lowering unemployment, increasing property values, and attracting and fostering businesses. The local economy is not solely determined by outside factors. Such internal factors as municipal entrepreneurship, civic effort, and the joint efforts of local businesses can greatly influence the local economy.

There are more than 15,000 organizations in the U.S. promoting local economic growth, from small chambers of commerce to State agencies with large staffs and budgets. [5] The competition for economic activity is intense. Heritage tourism and downtown revitalization of retail, office, cultural and convention activities have become familiar strategies on the part of local planners to improve local

[5] John M. Levy, *Urban and Metropolitan Economics*, McGraw-Hill, New York, 1985, p. 130.

labor markets, expand tax bases through economic growth, increase rents and land prices, and bring prestige to local communities. Given the substantial economic impact of historic preservation, planners can no longer dismiss it as "tangential to other planning functions." [6]

A word of caution is necessary when interpreting local economic health. Economic theory holds that local economies aggregate to form regional or State economies, which in turn aggregate to make up the national economy. However, in practice one local economy's "imports" may be another local economy's "exports." It follows that growth in one local economy may be at the expense of another.

> "At the city, town, county, metropolitan area, and state level there is intense interest in fostering economic development… The local effort to promote local economic growth is an old American tradition."
>
> John M. Levy, *Urban and Metropolitan Economics*.

It may, therefore, be inaccurate to infer national economic growth based on evidence of growth at a particular local level. Rather, all localities must be considered in the aggregate, and the net effect measured. What may appear to be economic "stimulation" may actually be economic "substitution." Has heritage tourism really grown, or are tourist dollars merely moving from one location to another? Have jobs been created, or simply transferred? These are the kinds of questions that economic analysts seek to answer.

[6] Rich Harrill and Thomas D. Potts, "Tourism Planning in Historic Districts," *APA Journal*, Summer 2003, Vol. 69, No. 3.

Historic Preservation: a Hidden Industry

A question pertinent to this discussion is: "How *much* does historic preservation contribute to the economy?" Unfortunately, the answer is not easy to obtain because one important research tool, the North American Industry Classification System (NAICS)[7], does not define "historic preservation activities" as a discrete industry, as is the case for manufacturing and trade. While NAICS does classify Historical Sites as industry code 712120—and includes archaeological sites, battlefields, heritage villages, historical forts, historical ships, historical sites, and pioneer villages—other preservation-related activities fall into such varied

Table 1. NAICS Broad Sectors of the Economy

11	Agriculture, Forestry, Fishing and Hunting
21	Mining
22	Utilities
23	Construction
31-33	Manufacturing
42	Wholesale Trade
44-45	Retail Trade
48-49	Transportation and Warehousing
51	Information
52	Finance and Insurance
53	Real Estate and Rental and Leasing
54	Professional, Scientific, and Technical Services
55	Management of Companies and Enterprises
56	Administration and Support and Waste Management and Remediation Services
61	Education Services
62	Health Care and Social Assistance
71	Arts, Entertainment and Recreation
	712120 Historical Sites
72	Accommodation and Food Services
81	Other Services
92	Public Administration

[7] The U.S. Bureau of Census, the Bureau of Economic Analysis, the Internal Revenue Service, the U.S. Small Business Administration, and the Bureau of Labor Statistics all gather and categorize business data according to the North American Industry Classification System (NAICS), which replaced the U.S. Standard Industrial Classification (SIC) codes. This systematic categorization of business activities is conducted every five years by the U.S. Census Bureau in order to profile the U.S. economy from the national to local level. The Economic Census (sent out to 5 million businesses in 2002) asks about business activities in a variety of economic sectors. Data is compiled for the Nation, States, metropolitan areas, and zip codes.

categories as construction, manufacturing, and professional services. Such dispersal of the data makes it hard to evaluate the true impact of historic preservation on national and local economies. As well, the Economic Census embeds the information concerning historic restoration and rehabilitation into statistics for all renovations (including nonhistoric) and new construction. Nevertheless, it is clear that historic preservation has both direct and indirect effects on the economic sectors shaded in Table 1. Consider the following:

Suppose a homeowner pays an architect for restoration design services for his historic home. As a result, reproduction windows are ordered from a retailer specializing in restoration products and contractors are hired to install the windows. Dollars flow directly into the economy as a result of these economic transactions. The economy benefits indirectly as well. The architect, contractors, and retailer all have additional income that they will spend in the economy. If the retailer purchases the windows from a wholesaler who, in turn, purchases them from a specialty manufacturer, two more firms become part of the chain of economic transactions. The technical services, construction, retail, wholesale, and manufacturing sectors (all identified in NAICS separately) benefit from this historic preservation activity. Suppose, further, that the homeowner converts his historic home into a bed-and-breakfast inn. Income from such a business would be classified by NAICS under sector 72, Accommodations and Food Services.

In his book, *The Restoration Economy*, Storm Cunningham estimates that "restorative" development, which includes both natural and built environments, tops over one trillion dollars a year worldwide. In his opinion, restoration is "the fastest growing economic sector on the planet."[8] Unfortunately, good metrics for analysis do not currently exist because historic preservation remains an industry largely hidden within the commonly collected economic data.

While this presents a challenge to quantify the size of historic preservation on a national and global scale, in recent years economists have begun to measure the impact at city and State levels. These studies can be used by Federal agencies to establish methodologies and comparative data for measuring the impact of their own historic preservation programs.

[8] Storm Cunningham, *The Restoration Economy*, San Francisco, CA: Berrett-Koehler Publishers, 2002, p 2..

Establishing an Economic Framework

Federal managers seeking to measure the local economic impact of historic preservation investments should visualize a three-dimensional analytical framework. The three dimensions are:

- economic activities
- economic benefits
- economic effects.

These three dimensions can be seen as intersecting in the three dimensions of a cube. The following discussion will elaborate on this concept; explaining how differing economic activities (dimension one) generate differing economic benefits (dimension two). Economic benefits, in turn, encompass one to three types of economic effects (dimension three).

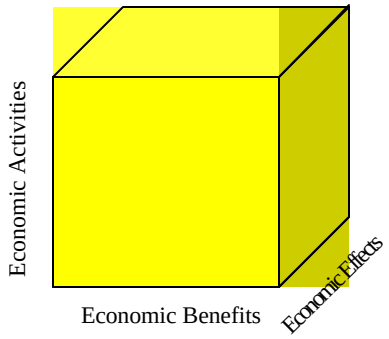

Figure 1. Three Dimensions of Total Economic Impact

Dimension One: Economic Activities

The first dimension of the cube framework is economic activities, which an economist might define as the interaction among economic units involved in the production, exchange, and consumption of goods and services that brings about changes in economic wealth.

The following discussion examines preservation activities that result in goods (such as construction materials or souvenirs) and services (such as training, landscaping, concessions) being produced and purchased. The NAICS categories discussed previously reflect economic activities that to some degree are related to historic preservation. This discussion aggregates the NAICS-specific economic activities such as construction, transportation, or food services into four broad categories of historic preservation activity:

- rehabilitation, restoration and stabilization of historic properties
- operation and maintenance of historic places
- downtown revitalization
- heritage tourism.

Rehabilitation, Restoration, and Stabilization of Historic Properties

This category refers to the one-time expenses incurred when rehabilitating, restoring, repairing, or stabilizing a historic building, place, or site. Construction and manufacturing industries are predominantly involved, but this category also includes activities in other industries, such as retail, transport, finance, insurance, and professional services. The extent of activity may range from restoration of a few architectural features to adaptive reuse that changes the function of the structure. The intended uses for historic places can vary greatly, and might include Federal office space, a courthouse, an educational facility, a visitor center, or a museum, all of which attract users. It may also include expenditures to stabilize historic fortifications, cemeteries, or archaeological sites.

Operations and Maintenance of Historic Places

Once rehabilitation of a federally controlled historic property is complete, the managing Federal agency continues to support local and regional economies through its daily operations, by hiring personnel and purchasing supplies and services. All recurring expenditures for activities to operate and maintain it are included in this category. Specific activities may include manufacturing, landscaping, and services. Benefits to the local economy are greater if these activities are provided by local businesses. Partnerships between the managing agency and business ventures provide a range of services and facility improvements, such as tour guides and concessionaires.

> "Vital prosperous downtowns always have a physical heart."
>
> Storm Cunningham, The Restoration Economy, 2002.

At the same time, conventions, conferences, and meetings of historic preservation personnel are contributing dollars to the host historic places and localities. The growing field of historic preservation education and training is also bringing dollars to communities. For example, Savannah, Georgia, has not only been the site of the annual convention of the National Trust for Historic Preservation but has also encouraged the development of the city's historic downtown buildings by the Savannah College of Art and Design, which offers a historic preservation degree program.

Downtown Revitalization

Historic preservation programs are engines of economic growth. According to Donovan Rypkema, specialist in historic real estate for the National Trust for Historic Preservation, historic preservation is an effective economic development strategy for big cities, smaller cities, small towns, and rural areas.

The Main Street approach is particularly effective for attracting and retaining small businesses. The National Main Street Center of the National Trust has been working with communities across the Nation since 1980 to revitalize their traditional downtown business districts. While the original intent of the program was to preserve historic commercial architecture and community character, the

program has become a powerful economic development tool. The National Trust reports that more than 57,000 new businesses and 231,000 new jobs were created in 1,700 communities between 1980 and 2002.[9] Drawing small businesses to an area is a key element of an economic growth plan since they generate the majority of new, permanent jobs.[10]

A Federal historic site—such as the U.S. Courthouse on Pioneer Square in Portland, Oregon—that anchors a downtown area and encourages small businesses to locate in the area can create two key economic results. First, the Federal investment strongly leverages additional dollars in private investment as it demonstrates a long-term Federal commitment to the area. Second, the presence of Federal employees creates the need for additional local businesses and services, such as restaurants, drycleaners, and gift shops. Fully occupied buildings or highly visited sites contribute far more to the local economy than vacant buildings or empty lots, simply by increasing the number of potential customers in an area. The Downtown Revitalization category discussed here also includes the rehabilitation of buildings in the area surrounding the historic Federal site and economic transactions of the businesses and residents that locate there.

Economic activity:
The interaction among economic units involved in the production, exchange, and consumption of goods and services.

The revitalization of a downtown also increases local government revenues, which can be spent on schools, public transportation, parks, libraries, and city services, and can make the area more competitive with the suburbs for job creation and residency. The return on the initial investment can be significant. The National Trust has reported that, for every dollar spent to operate a local Main Street program, an additional $40.35 was generated and reinvested in each community.[11]

Heritage Tourism

When the subject of preservation economics arises, no single economic activity comes more quickly to mind than that of heritage tourism, which encompasses lodging, restaurants, entertainment, and retail and service businesses.

Travel and tourism is an important sector of the national economy. In 2002, $545.5 billion was spent in the U.S. by domestic and international travelers. The industry generated 7.2 million travel-related jobs for Americans with a $157 billion payroll. An additional 10 million jobs were indirectly created. Local, State, and

[9] 2002 National Reinvestment Statistics for the Main Street Program, National Trust for Historic Preservation website.
[10] The U.S. Small Business Administration notes that small firms generate 60 to 80 percent of net new jobs annually. Small businesses represent more than 99.7 percent of all employers, employ more than half of all private sector employees, and pay 44.5 percent of total U.S. private payroll.
[11] 2002 National Reinvestment Statistics for the Main Street Program, National Trust for Historic Preservation website.

Federal governments received tax revenues from travel and tourism totaling $93.2 billion.[12]

A rapidly growing segment of the travel industry is heritage and cultural tourism. Heritage tourism is the "business and practice of attracting and accommodating visitors to a place or area based especially on the unique or special aspects of that locale's history, landscape (including trail systems), and culture."[13] The Travel Industry Association (TIA) and *Smithsonian Magazine* report that 81 percent of adults who traveled, or 118 million adults, are considered "cultural or historical" travelers. According to a TIA study, "Geotourism: New Trend in Travel," 61 percent of travelers believe that their experience is better when their destination includes natural, historic, and cultural sites.[14]

The Heritage Tourism category is included in this framework because it is triggered by the agency's decision to develop or be part of a tourist destination. The *Preserve America* Executive Order specifically emphasizes heritage tourism as a means to stimulate local economies. Cultural/historical travelers spend more money than the traditional tourist ($623 versus $457 per average U.S. trip).[15] Their stays are also longer—5.2 nights versus 3.3 nights.[16] Unlike expenditures in the first two broad categories, heritage tourism expenditures originate from out-of-area visitors, not the Federal agency managing the historic site. Gift shops, tour operators, food services, convenience items, lodging, etc., all generate revenues through direct sales.

Heritage tourism is an important segment of many local economies, particularly in localities that have lost their former industrial base. After disastrous floods hastened the decline of a once-robust industrial center, Harpers Ferry, West Virginia endured commercial hardship for 40 years until Congress established the Harpers Ferry National Monument in 1944. Restoration of the area known as the Lower Town by the National Park Service began in the late 1950's. Today, Harpers Ferry is a National Historical Park that is visited by more than 250,000 visitors every year, and generates $12 million annually for the local economy. "Additionally, the Park Service, which is among the largest employers in Jefferson County, spends approximately $876,400 a year—much of it locally—for goods and services such as fire, police, water, and sewer. The park spends another $6 million annually on capital improvements, most of which, according to the Friends of Harpers Ferry National Historical Park, goes to local contractors."[17] A study by the Civil War Preservation Trust of Civil War battlefields, many of

[12] Travel Industry Association of America website.
[13] *Preserve America* Executive Order.
[14] Travel Industry Association of America. *Geotourism: New Trend in Travel*. Washington, DC: Travel Industry Association of America, 2003.
[15] Travel Industry Association of America and Smithsonian Magazine, *The Historic/Cultural Traveler, 2003 Edition*
[16] "Profile of Travelers Who Participate in Historic and Cultural Activities: Results from the Travel Scope Survey," Washington, DC: Travel Industry Association of America, July 1997
[17] National Parks Conservation Association, http://www.npca.org/across_the_nation/ten_most_endangered/2005/reason10.asp

which are managed by the National Park Service, found that "on average, Civil War tourists spend $51.58 per person, per day.[18]

Combined Economic Activities

These four broad categories of economic activities do not represent mutually exclusive activities. A historic resource may be rehabilitated for use as both Federal office space, a tourist destination, and contribute to urban revitalization.

A good example of an economic activity involving a federally controlled historic property is the 1881 New Orleans U.S. Customs House, owned by the General Services Administration and one of the most architecturally important Federal buildings in the South. Through a 50-year leasing agreement with GSA, the Audubon Nature Institute's Insectarium is scheduled to open in the building in late 2005. Construction and other development costs for the Insectarium have been estimated at $16 million. The Audubon estimates annual visitation at 428,000 persons with an economic impact of $54 million. Other parts of this National Historic Landmark building will continue their present use as Federal agency office space.

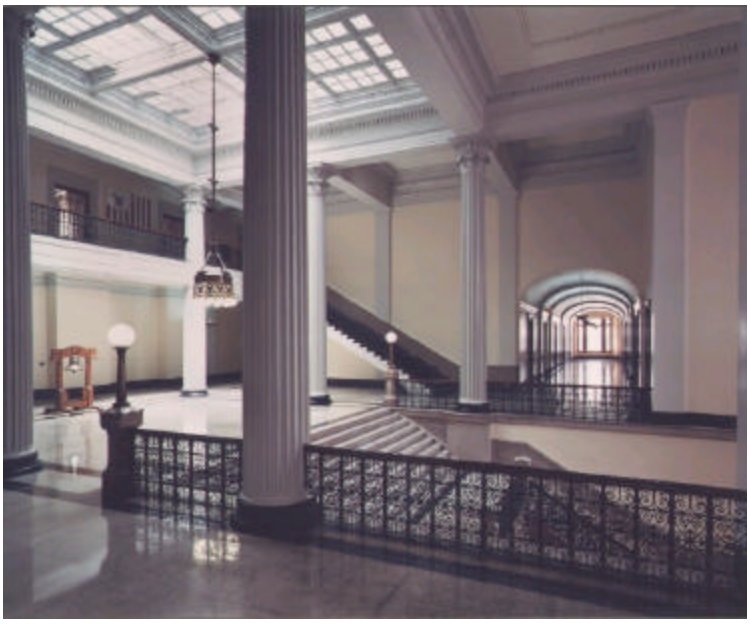

Figure 2. New Orleans Customs House

Another good example of such combined economic activity is Union Depot, the historic railroad station in Tacoma, Washington, that the General Services Administration (GSA) leased from the city of Tacoma in the 1990's and adaptively rehabilitated for use as a Federal courthouse. This Federal project has

[18] Civil War Preservation Trust, *Blue, Gray, and Green: Why Saving Civil War Battlefields Makes Economic Sense*, 2005.

attracted new investors to the area, including the University of Washington, the Greater Tacoma Convention Center, the Museum of Glass, and others.

Spurred by the depot project, ten privately owned properties in the area have since qualified for the Tacoma rehabilitation tax abatement, and logged qualifying expenditures of more than $40 million among them. The values of the rehabilitated buildings, based on city tax assessments, increased dramatically, ranging from double to 23 times their original value.[19] The development of the Federal courthouse and rehabilitation of the historic railroad station had created a feeling of optimism for private investors, helping to catalyze a new market for real estate and services. Adjacent property has subsequently been redeveloped as a university campus. New users and visitors have stimulated additional economic activities.

Illuminating as they are, the four areas discussed here under the category of Economic Activity do not encompass all preservation-related economic activity that might be stimulated by a Federal project. For example, studies sometimes exclude the impact of dollars generated by local residents' visits to heritage tourism businesses, since they do not represent "outside" dollars newly introduced to the local economy. Such dollars nevertheless contribute to the economic activity of the area.

Dimension Two: Economic Benefits

The second dimension of the cube—economic benefits—clarifies the manner in which historic preservation activities contribute to local and regional economies. There is a dichotomy between economic benefits and economic activities. An economic activity *causes change* in economic wealth whereas an economic benefit *results from change* in economic wealth. For instance, the economic benefit of job creation results from the economic activity of heritage tourism.

Here, as in other analyses of the economics of preservation, economic benefits generally mean *net* gains to the economy. That is to say, all economic activities involve both costs and benefits. For example, downtown revitalization activity in a locality may result in the gain of some jobs (i.e., construction workers) and the loss of others (i.e., security guards at a vacant building). But if more jobs are gained than lost, a net economic gain will have occurred. Economic impact studies typically measure economic benefits in terms of

- job creation
- income creation
- tax revenues
- value-added
- property values.

[19] Correspondence from Reuben McKnight, Historic Preservation Officer, Tacoma Economic Development Department, Tacoma, WA, Jan. 31, 2005, to the authors.

These benefits are used as indicators of economic growth and are described below.

Job Creation

The most immediate economic benefit of preservation to local communities is job creation. According to Donovan Rypkema, historic preservation is "one of the highest job-generating economic development options available."[20]

Ironically, the fact that new jobs are created in a particular locale does not necessarily mean that skilled workers are available there to fill them. Place-related structural unemployment can occur when there is a mismatch between the demand for and the supply of labor. Since capital moves geographically much more easily than do populations, the demand for labor may not be where the supply of labor exists. As a result, jobs may go unfilled while pockets of poverty develop elsewhere.

Economic benefit:
A positive change in wealth generated by an economic activity.

This demand-supply mismatch is mitigated somewhat as the scale of the historic preservation activity in an area increases. Economists call these phenomena "economies of agglomeration;" they may be thought of as place-related economies of scale and can explain why certain geographic locations specialize in particular industries. By clustering, firms can share common infrastructure and reduce unit costs. By sharing a common labor pool, all firms potentially stand to benefit from any increase in the pool's skills and techniques.

This framework can be extended to historic district rehabilitation. While rehabilitation of a single historic site may not generate enough demand to draw skilled preservation professionals to an area, rehabilitation of a historic district may provide adequate demand to provide full-time employment for historic architects and preservation craftsmen. For instance, in Washington, D.C., the Federal government rehabilitates enough historic buildings to have generated jobs—and even staff units—in many architectural and engineering firms and construction companies that specialize in contracted historic preservation work for the Federal government.

Income Creation

Income creation—closely related to job creation—is defined here as the wages and salaries paid to those who hold jobs created by the historic preservation economic activity. It also includes income earned by new or existing business owners through profits attributable to preservation activity. For instance, restaurant owners in a historic district might feed more people as new customers are drawn to a revitalized downtown. The demand for historic preservation skills may increase income and wages for business people offering such services. For

[20] Donovan D. Rypkema, *The Economics of Historic Preservation: A Community Leader's Guide*, National Trust for Historic Preservation, 1994, p. 13.

instance, a carpenter who realizes the opportunity to specialize in historic preservation might earn higher wages than would be possible as a general carpenter for new construction. .

Tax Revenues

Tax revenues, another economic, are defined as the net gain in the local and State tax base as a result of the historic preservation activity. The Federal government realizes increased revenues from historic preservation primarily from corporate and personal income taxes. .
State governments, however, realize such revenue increases not only from income, but also from excise, sales, and other State taxes, which are estimated from calculations of value-added and income generated (e.g., purchases by visitors).

Local governments depend largely on property taxes for their revenue stream, but may also levy sales and other taxes.[21] Net gains in property tax revenues, due to increases in property values as detailed below, may also be analyzed. In the case of a federally controlled property, net gains can also include Federal "in-lieu-of-tax" payments to local governments, which would have realized property tax income had the property not been under Federal ownership.[22]

Value-Added

Value-added as an economic benefit is a more encompassing concept than the previous benefits listed. It gauges the contribution (*i.e.*, how many goods and services are being produced) of a particular industry or activity to the national or local economy. Calculations of value-added serve as a measure of the overall economic welfare of a community.

At the national level, value-added is a measure of gross domestic product (GDP), which is the value of all goods and services produced within the U.S. during a given time period. Real GDP is nominal GDP adjusted to factor out the effects of inflation. Thus real GDP reflects only output (not inflation) within the U.S. The growth rate of real GDP is used as a measure for the growth rate of the economy.

At the State level, value-added is measured by gross state product (GSP). The Bureau of Economic Analysis, in the Department of Commerce, measures state gross domestic product. "It is estimated from State-level data by industry. For a firm, value-added is the difference between the value of goods and services

[21] Center for Governmental Responsibility at the University of Florida and the Center for Urban Policy at Rutgers University, *Economic Impacts of Historic Preservation in Florida*, Executive Summary, September 2002.
[22] Annual PILT payments are made for tax-exempt Federal lands administered by the Bureau of Land Management, the National Park Service, the U.S. Fish and Wildlife Service, the U.S. Forest Service and for Federal water projects and some military installations. "PILT payments help local governments carry out such vital services as firefighting and police protection; construction of public schools and roads; and search-and-rescue operations," said Bureau of Land Management (BLM) Director Pat Shea.

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."[23] For purpose of economic impact analyses, changes to gross state product serve as a proxy (i.e., an approximation) to changes in wealth. For example, Maryland's total GSP for all industries in 1998 was $164.1 billion. By 2001, total GSP had grown to $195 billion, representing an average annual growth rate of 5.9 percent.

Real Property Values

Numerous studies have shown that properties in historic districts appreciate in value more than similar properties in nondesignated areas. "Of all the economic issues of historic preservation, none is subject to so many opinions based on so few facts as the impact on property value of being included in a historic district."[24] When property values rise, property tax revenues for local governments increase. In his 1996 study for the Preservation Alliance of Virginia, Donovan Rypkema cited numerous cases of property values increasing relatively faster in historic versus nonhistoric areas.[25] He cited as one example the Shockoe Slip historic district in Richmond, the State capital, where assessments increased 245 percent versus 8.9 percent for the city as a whole between 1980 and 1990. Similarly, in the Virginia piedmont city of Staunton, properties in historic areas appreciated much faster than for the entire city for both residential properties (52 to 66 percent for historic properties, versus 51 percent overall) and commercial properties (28 to 256 percent for historic properties, versus 25 percent overall).

"Of all the economic issues of historic preservation, none is subject to so many opinions based on so few facts as the impact on property value of being included in a historic district."

Donovan Rypkema.

Intangible Benefits

In addition to the tangible economic benefits discussed above, preservation generates many intangible or qualitative benefits. These benefits can be difficult to evaluate empirically but nonetheless can seem substantial to those who live and work in proximity to a historic area. Historic preservation not only attracts new residents and businesses; it also improves the quality of life for current residents. Residents and visitors alike enjoy the cultural benefits, including more and better shopping and restaurants in the historic area, and public service improvements that often result from preservation projects. Preservation efforts

[23] U.S. Dept. of Commerce, Bureau of Economic Analysis. www.bea.gov/bea/regional/docs/Regional_GSP.pdf
[24] Rypkema, p. 41.
[25] Preservation Alliance of Virginia, "Virginia's Economy and Historic Preservation: The Impact of Preservation on Jobs, Business, and Community," Staunton, Virginia,1996.

safeguard community character, which differentiates a historic locale from an area with ubiquitous strip shopping centers and drive-ins.

Two Federal historic properties that contribute to unique community character are the Chapel at the U.S. Naval Academy, which shapes the harbor view of Annapolis, Maryland, and Pioneer Square U.S. Courthouse in Portland, Oregon, which is the focal point of that city's central plaza.

Communities consider many of their historic Federal properties public treasures, whether or not they are tourist attractions. The community pride that preservation instills can result in both renewed prosperity and improved self-image; it should be measured and should not be undervalued.[26]

Dimension Three: Economic Effects

The third dimension of the cube is the economic effect that results from the economic benefits of various economic activities. The most obvious effect is the infusion of money into the local economy in exchange for services and goods associated with the rehabilitation, operations, or tourism activities. This infusion is the easiest to measure.

But the first round of spending is not the last. The money flows through many subsequent transactions, in many different markets. For every dollar earned in the labor market, some portion will go to market in search of a consumer good, which will in turn contribute to the production of another consumer good. Wages paid in the production of this second good will seek out a third consumer good, and so on. Economists call this process the multiplier, or ripple, effect. Three components of the multiplier effect are direct, indirect, and induced effects.

Economic effect:
The *type* of economic wealth generated by an economic activity.

Direct Effects

Direct effects are the labor and material purchases made specifically for a given preservation activity. In this historic preservation analysis, these purchases could include construction labor and materials for rehabilitation. Purchases by visitors at gift shops, food, lodging, and entrance fees are also direct effects. The funds a Federal agency commits for maintenance services, utilities, and staff salaries to run a historic site also directly affect the economy. Money paid for historic preservation training courses, conferences, and meetings as well as

[26] Measuring the value of a public resource, unlike a market good where price indicates value, can be problematic. But one widely-used technique is the contingent valuation method (CVM) . CVM uses a consumer surplus concept to determine the value consumers place on use of a resource, i.e., the "use value." Surveys are conducted to determine how much consumers would be willing to pay for changes in the availability of a public resource.

subscriptions to the increasing number of preservation journals and magazines is increasing the flow of dollars into the historic preservation economic sector.

Indirect Effects

The direct purchases for the historic preservation activity leads to additional rounds of spending. This type of ripple occurs when the businesses that supplied the direct purchases must, in turn, purchase production materials and services from other businesses. This cycle continues for several iterations. For instance, when visitors to a historic site purchase meals from a restaurant, the restaurant owner increases purchases from the local bakery. The local bakery purchases fresh eggs from the farmers market and flour from the wholesale grocer. In this example, flow of money from the visitors to the restaurant, bakery, farmers market, and grocer also supports jobs in each of these business ventures. This causes an increase in household income and leads to the next type of effect.

Induced Effects

A second type of ripple is created by the wages earned in either the direct or indirect transactions detailed above. The households of the workers involved either directly or indirectly with the preservation activity spend money on various consumer goods and services. These expenditures occur in numerous industries such as utilities, housing, and entertainment. This is called an induced effect; the original historic preservation activity can affect economic sectors unrelated to preservation.

Total economic impact

An estimate of the total economic impact of a project must, by definition, include direct, indirect, and induced effects. Direct effects are multiplied by a factor (a “multiplier”) that reflects local market conditions in order to estimate the value of all output produced in the local region. This factor can be defined as the ratio of total effects to direct effects. The greater the ratio, the greater the resulting impact. But dollars are not “re-spent” indefinitely. Businesses and households retain some portion of their incomes as savings, and it is this “savings leakage” that eventually winds down the multiplier effect. A general rule of thumb is that every dollar spent is worth 1.5 to 3 dollars of GDP.

Putting the Dimensions Together

When these three dimensions—economic activities, economic benefits, and economic effects—are put together in the cube, one can begin to see the true effect of historic preservation on an economy. By quantifying and filling in the applicable smaller cubes within the larger three-dimensional framework, as illustrated in Figure 3, the full impact of Federal preservation activity becomes apparent.

For example, economic activities such as rehabilitation can generate *direct* economic benefits, such as job and income creation, value-added, and tax revenue. Furthermore, measuring and including the *indirect* and *induced* benefits, greatly augments the role of that a Federal preservation endeavor can have on the local, regional, or national economy.

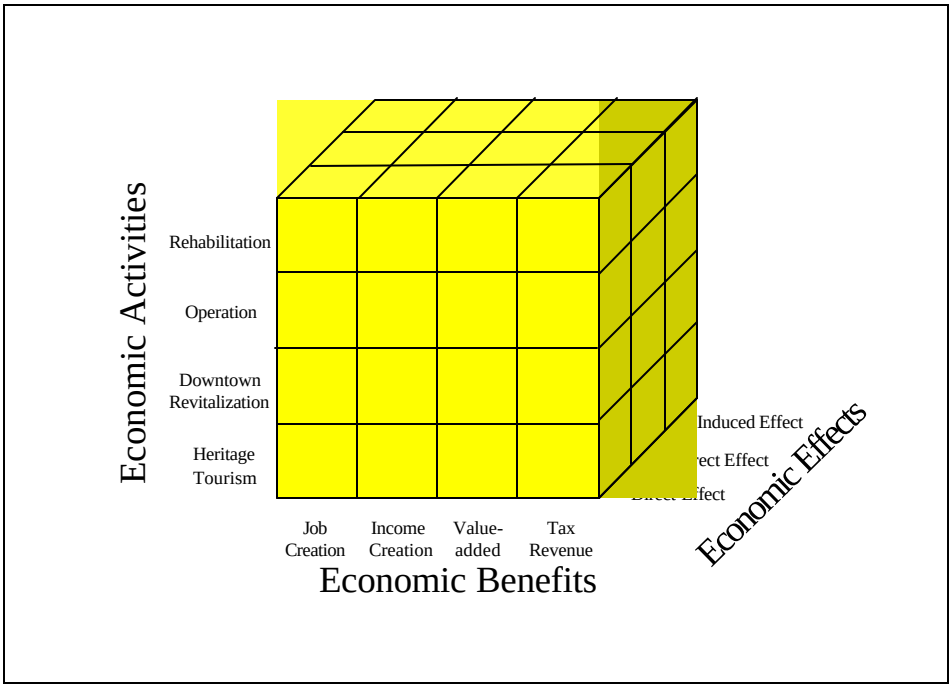

Figure 3. Putting the Dimensions Together

Slices of the Cube

Using the ”top slice” of the economic cube, it is possible to see, for example, the linkage of the direct, indirect, and induced benefits. Rehabilitation creates more jobs than the alternative, new construction. Every $1 million spent on historic rehabilitation creates five to nine more construction jobs than does the same investment in new construction. This is because historic preservation is more labor intensive than new construction. Typically, 60 to 70 percent of total construction costs go towards labor in a rehabilitation project (direct effect). By

contrast, Rypkema states that in new construction, half of the expenditures go toward labor and half go toward materials.[27] Jobs are created both directly by expenditures on personnel and operations, and indirectly by businesses that provide goods and services. The resulting increases in jobs—and purchases of supplies and services from local businesses—leads to an increase in the next category of benefits, income creation.

With a rehabilitation project, local suppliers will provide more construction materials since the type of supplies needed for new construction tend to be bought outside the community. Since more purchases of construction materials (direct effect) are purchased within the local community, the local economy will realize greater benefits than with new construction. Laborers are almost always hired locally and tend to spend their wages locally (contributing to an induced effect).

These construction purchases and increased wages will, in turn, prompt additional spending by the recipients of these proceeds (creating indirect effects). Increased productivity and spending spurred by rehabilitation-related jobs and business transactions add value to the local economy, essentially an increase in local gross domestic product. Tax revenues to the economy also increase as workers and businesses generate more income and property values rise. These tax revenues may then be spent in other sectors of the community creating further indirect and induced effects.

Similar analysis can be made of the effects of the remaining "slices" on the cube: the interface of operation and maintenance, heritage tourism and downtown revitalization on job and income creation, value-added, and tax revenue. Each of these "little cubes" shows a relationship that yields different economic effects.

For example, in the operation and maintenance of a historic place, jobs are created both directly by expenditures spent on personnel and operations, and indirectly by businesses that provide goods and services. As with rehabilitation, operation and maintenance of a historic site generates increases in income, value-added and tax revenues. Even when a Federal agency leases or disposes of a property to an outside party, economic benefits are generated by the operation, maintenance, and rehabilitation activities.

Visitor spending figures typically measure the economic benefits of heritage tourism. The difficulty here is drawing a distinction between resident spending and tourist spending. Data is based on annual visits, average daily expenditures, and average length of stay. From this data, economists can derive the number of jobs directly supporting the tourist attraction and other jobs to serve the visitors (lodging, concessions, restaurants, etc.). Economic benefits of tourism are realized at the State level by revenue from "gasoline tax, sales tax, airport and boarding fees, room tax, park admission fees, liquor and cigarette tax, food and beverage taxes, amusement tax."[28]

[27] Rypkema, p. 14.
[28] Ibid, p. 79.

A possible "fourth dimension" of the cube is timing, especially relative to the business cycle, mentioned earlier. For this reason, the counter-cyclical nature of rehabilitation is very important. "Many cities have found that historic preservation is one of the few bright spots when the rest of the local economy is in the doldrums."[29] There are various reasons why activity on rehabilitation projects continues while the rest of the building industry is in a slump. Rehabilitation and remodeling projects are more feasible for property owners during difficult financial times because they are perceived as less risky than new construction during a recession. In part, this is because building occupancy—and rent income—can continue in portions of the building not under construction. In addition, since much of the work is on the interior, inclement weather is less likely to affect the construction schedule. Also, inasmuch as rehabilitation work—as contrasted to new construction—generates more money for local workers and suppliers, more money stays in the local economy.

Economic Models

While the cube illustrates the relationship of the parts, it is still necessary to quantify the relevant data. The cube is simply a device to show the relationship among economic factors. To accurately measure the total economic impact (implying direct, indirect, and induced effects), an economic model is needed.

"Many cities have found that historic preservation is one of the few bright spots when the rest of the local economy is in the doldrums."

Donovan Rypkema.

Economists measure local economies using three basic types of models. The first, export-based models, divide the local economy into an export sector and a local sector and use a multiplier that is the ratio of total activity to export sector activity. The second, econometric models, use a system of equations constructed to model the performance of an economy. The third, input-output (I/O) models, provide more detailed insights into the workings of a local economy than the export-based model.

Like the export-based model, the I/O model is driven by the demand for export products of the area. But the model requires more data and mathematical skill. It is I/O models that have most commonly been used by economists to measure the total economic impact. In the past several years, many studies have been done to empirically measure the impact of private and public investment in historic preservation using input-output models. The scope of the studies varies from citywide to statewide.[30] Several different models were used for these studies, which examined not only the direct effects but also indirect and induced

[29] Ibid, p. 20.

[30] Citywide studies include Fredericksburg, VA, and Galveston, TX (Leithe et al.). Statewide studies include Virginia (Preservation Alliance of Virginia 1996), Rhode Island (University of Rhode Island 1993), Texas, New Jersey, and Florida (Center for Urban Policy Research, Rutgers University).

economic effects. (See Appendix A for further discussion on various economic models and their applications.)

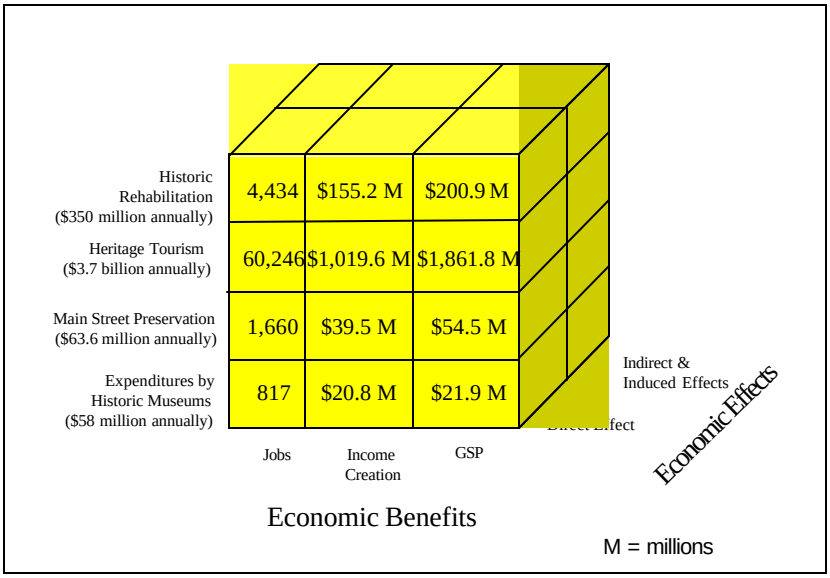

Figure 4. Direct Effects of Preservation in Florida

Economic Impact Analysis

One example of the relationship among activities, benefits, and effects can be seen in results generated by the 2002 study of the economic impact of historic preservation in Florida.[31] Figure 4 illustrates the direct effects of historic preservation activities, both public and private, throughout the entire State. Figure 5 shows the corresponding indirect and induced effects.

For example, the $350 million spent annually on historic rehabilitation creates 4,434 directly related jobs. But job creation does not stop within the preservation industry. An additional 6,008 jobs are created indirectly in industries that support the preservation work and by the induced effects of spending of increased household income.

Similarly, the $350 million of annual rehabilitation expenses directly generates $155 million in income in the State. An additional $162 million of income is created through indirect and induced effects. This rehabilitation activity contributes $201 million directly to gross state product and another $295 million is contributed indirectly.

[31] Center for Governmental Responsibility at the University of Florida and the Center for Urban Policy at Rutgers University. *Economic Impacts of Historic Preservation in Florida*. September 2002.

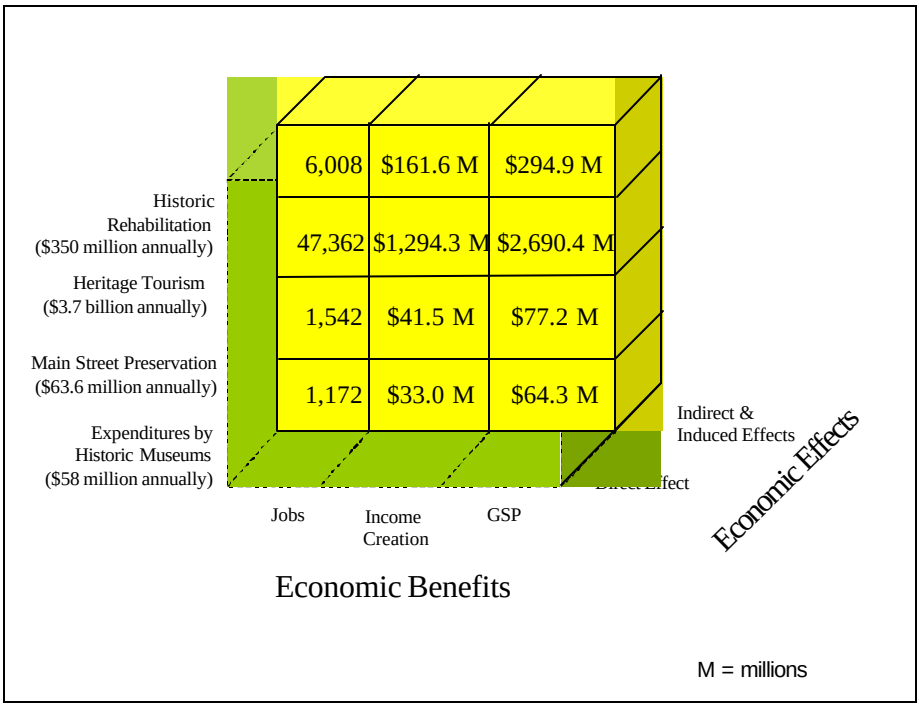

Figure 5. Induced and Indirect Effects of Preservation in Florida

Authors of economic impact studies may choose to limit their study to certain aspects of economic impacts. Using the framework provided by the cube, however, it is easy to see which aspects have been included and which omitted.

For example, using the National Park Service's methodology of estimating the impact of visitor spending in national parks, one can see that while many of the "mini-cubes" within the larger cube may be filled in, there are many "holes" in the analysis. Indirect and induced effects are calculated. But the NPS methodology limits its definition of economic benefits to jobs, income and value-added. Increased tax revenues and property values in the surrounding community are not considered. What makes the NPS methodology even less apt to accurately estimate overall economic impact is the fact that the only economic activity it tracks is visitor spending; rehabilitation and conservation expenditures, ongoing operations and maintenance expenses, and the impact of park employees on the local economy are disregarded.

Citing a similar gap in efficacy, Edward Sanderson, Rhode Island SHPO, noted that the economic impact reported in a study by the Preservation Commission in Rhode Island significantly understated the real economic benefits of historic preservation. The Preservation Commission demonstrated $240 million in preservation expenditures since 1971. Sanderson extended this analysis to job creation (each $10 million in expenditures created 285 jobs in Rhode Island), value-added ($232 million to the State of Rhode Island) and tax revenues (additional Federal tax revenues of $64 million, State revenues of $13.5 million, and local tax revenues of $8.1 million). Further, he notes that when Federal,

State, local, and private funds are taken into account, it represents a 9:1 leveraging ratio of private investment to all sources of public expenditure.[32]

This type of gap analysis is useful to demonstrate that a particular study may be underestimating the *total* economic impact. It also shows that valuable analyses and interpretations can be made using the cube framework, even though certain types of model data may be missing or too costly to obtain.

[32] Sanderson, Edward F. "Economic Effects of Historic Preservation in Rhode Island," *Historic Preservation Forum, V*. 9, No. 1 (Fall 1994): 22–28.

What Role Can Federal Agencies Play?

There are now more than 20,000 federally owned sites listed in the National Register of Historic Places. They include all types of historic properties and range from prehistoric sites to eighteenth century buildings to battlefields to Cold War missile sites to veterans' hospitals to family cemeteries to landscapes and to traditional cultural properties. They can have an enormous potential impact on local and national economies. That impact occurs when agencies:

- fulfill compliance responsibilities
- generate cost savings
- practice good will
- serve as an economic catalyst for communities.

Through these actions, Federal agencies can abide by Federal law and enhance their fiscal responsibility, community ties, and economic effectiveness.

Compliance

First and foremost, all Federal agencies, as well as managers of Federal real property, have a responsibility to fulfill the requirements in the National Historic Preservation Act (NHPA) and related public laws.[33] Activities to locate, identify, evaluate, manage (e.g., maintain, repair, remove) historic properties require an investment. Some of that investment is via the funds expended to develop, operate, maintain and staff Federal agency historic preservation programs.

Much of that investment is now made through contracts to historic preservation professionals and specialists. In the last 25 years, a recent survey has shown that between 150 and 200 historic preservation consulting firms have been formed that now employ over 3,000 qualified professionals, and in the summer field season, double that number. The American Cultural Resources Association (ACRA) reports that their 130 member firms are currently doing 120 million dollars a year of cultural resource consulting work, primarily for the Federal government.[34]

Compliance with Federal preservation law is creating jobs, and that puts money into many communities where Federal agencies are undertaking projects that are generating economic activities. For instance, in San Antonio, Texas, rehabilitation work undertaken by several architectural firms on the National Historic Landmark Fort Sam Houston has been done in accordance with the

[33] See www.cr.nps.gov/linklaws.htm for complete list of preservation laws and executive orders.
[34] Society for American Archaeology, *The SAA Archaeological Record*, March 2003, Vol. 3, No. 2, p. 2.

Secretary of Interior's Standards for the Treatment of Historic Properties and the comments of the Texas Historical Commission and the Advisory Council on Historic Preservation.

Cost Savings

Another way to look at the economic value of historic properties, particularly buildings, is in the savings brought about by adaptive reuse of existing structures. Reusing existing foundations, walls, roofs, and interiors saves energy consumed in the manufacture of new materials, diminishes costs required to haul, dump, and create landfills, reuses existing public infrastructure, increases flexibility in retaining occupants in a building (thereby reducing costs of renting temporary space). This point—that it usually costs less to rehabilitate old space than to build new—has been well documented by Rypkema.[35]

A 1989 Department of the Army study of historic military housing also showed that it was more economical to rehabilitate existing facilities to meet mission needs than to replace the outdated housing units. Specifically, the rehabilitation costs would have been one-third to one-quarter of the replacements costs.[36]

Federal historic preservation and rehabilitation demonstrate fiscal responsibility when compared to new construction. Taxpayer dollars, a scarce resource, are saved and available for alternative uses that have the potential to create a greater economic multiplier than new construction. For example, dollars saved through rehabilitation could be invested in ways that encourage tourist visitation, such as the development of visitor interpretive materials about the historic building in question.

Another kind of savings may also be demonstrable. Some studies show a lower operating cost per rentable square foot in historic buildings versus nonhistoric buildings. A February 2001 study by the Department of Defense compared the costs of maintaining historic and nonhistoric housing on military bases. The study concluded that the cost per square foot for operations and maintenance of historic military housing is the same or less than nonhistoric units.[37] In another example, the Office of Business Performance at GSA found in its study, *Financing Historic Federal Buildings, An Analysis of Current Practice*, that the operating costs of Federal buildings generally *increase* with newer construction. The most expensive operating costs were associated with buildings constructed during the 1970's. By contrast, overall operating costs per rentable square foot

[35] The cost savings from major rehabilitation as compared to new construction range from 3 to 16 percent, if the costs of demolition for new construction are factored into the analysis. Alternatively, minor rehabilitation can be undertaken for 40 to 50 percent less than building a comparable new building. Rypkema, pp. 87-88.

[36] U.S. Department of Defense, "The Benefits of Cultural Resource Conservation: Commander's Guide," 1994.

[37] United States Department of Defense, Office of the Deputy Under Secretary of Defense, Environmental Security. "The Cost of Maintaining Historic Military Housing." Prepared by The Center of Expertise for Preservation of Historic Structures and Buildings, U.S. Army Corps of Engineers, Seattle District, and John Cullinane Associates, February 2001.

for historic buildings were 10 percent less than for nonhistoric buildings. Separately, cleaning costs were 9 percent less, maintenance costs were 10 percent less, and utility costs were 27 percent less.[38]

Savings through rehabilitation—that is, dollars going into historic preservation rather than new construction—at the same time permits "freed" dollars to be spent in other sectors that could have other kinds of economic effects, all resulting in increased gross domestic product. There are also significant savings in regional and environmental costs, such as in the creation of landfills for materials from building demolitions and energy consumption in the production of new materials.

Good Will

The National Historic Preservation Act calls upon Federal agencies to "administer federally owned, administered, or controlled prehistoric and historic resources in a spirit of stewardship . . . ."[39] Stewardship by Federal agencies generates a substantial amount of goodwill because it shows respect and support for neighborhood and community character, as well as creating a positive impact in providing jobs and income. Many Federal agencies, including the U.S. Forest Service, Bureau of Land Management, National Park Service, and the General Services Administration have initiated stewardship programs in cooperation with local programs.

Many localities are defined and enhanced by the presence of historic Federal properties. One good example of this is the Borough of Gettysburg, Pennsylvania, where there are many historically significant properties in its historic district. Many would say that the Gettysburg National Military Park's presence dominates the others. Certainly it lends a special sense of tragic history to the city, and contributes to the unique character of the area. The Gettysburg battlefield serves as an anchor to the nearby downtown historic district.

GSA's leadership in historic preservation was publicly reaffirmed at the National Trust for Historic Preservation's October 2003 conference in Denver when it received three awards.

Heritage education and tourism also positively impact communities when education and interpretation are the primary goals. Many agencies operate visitor centers and museums on Federal properties, even when tourism is not the sole function of the building. One such example is the historic Pension Building in Washington, DC, a GSA property leased to the nonprofit National Building Museum. It encloses not only museum and office space, but offers educational

[38] Ramirez, Constance, Donald R. Horn, and Bradley Wolf. "The Economics of Preserving Historic Federal Buildings." *Forum News* (A Newsletter of the National Trust for Historic Preservation), Sept./Oct. 1999, Volume VI, No. 1.
[39] 16.U.S.C. 470-1

activities for schools and groups interested in learning about design, construction, and historic preservation. In two other examples, the U.S. Forest Service encourages stewardship through its program, Passport in Time, in which volunteers work in various conservation and preservation tasks in the national forests. Their purchases of equipment and supplies during the days that they participate is another way that a stewardship program is creating economic activities. Military museums and tours of military bases exhibit stewardship at many DoD installations and stimulate investments in heritage education and tourism.

Economic Catalyst

Historic preservation programs are engines of economic growth and federal investment provides the fuel for the engine. Preservation creates jobs and income and tax revenues. It raises property values and spurs private investment in the community. By understanding their potential of historic places to spur economic development, Federal agencies can manage their historic assets to meet mission needs while simultaneously helping communities to prosper.

Federal appropriations for historic preservation are themselves economic stimulants. By investing in a historic Federal site, the Federal government demonstrates public commitment to an area and provides a comfort level for private investors. Thus, surrounding property values are augmented.

Through heritage tourism, economic partnerships, and participation in local economic development projects, Federally-controlled historic properties can be a stimulus to both local and national economic growth.

There is good economic reason for communities to petition to become National Historic Sites, which are units of the National Park System. A good example is Lowell, Massachusetts, where the economy had stagnated after the end of World War Two. Establishment of the Lowell National Historical Park led to the economic renewal of the city. Public sector investment totaled more than $122.7 million by 1989, including $18.7 million from the National Park Service to launch the National Historic Site. According to Cassandra Walter, Superintendent of Lowell National Historical Park, for every dollar of public investment there has been total private investment of seven dollars. [40]

Federal agencies that do not control historic properties but have grant and technical assistance programs have been the economic catalyst in many communities. The National Heritage Areas, created by Congress and administered with the assistance of the National Park Service, have leveraged additional investment (by State and local governments, other Federal funds,

[40] Rivers, Trails and Conservation Assistance Program, National Park Service. *Economic Impacts of Protecting Rivers, Trails, and Greenway Corridors: A Resource Book*. Fourth Edition Revised, 1994, p. 5-6.

transportation enhancements, private and other sources), on the whole, eight times the amount originally appropriated through Heritage Partnerships Funding.[41] Federal grant programs through the National Park Service, Department of Transportation, Department of Housing and Urban Development, Department of Agriculture, Economic Development Administration, and many other agencies all provide funds that can accomplish historic preservation activities in communities and stimulate local and private investment.

[41] www.cr.nps.gov/heritageareas/

Problems with Measuring Success

The *Preserve America* Executive Order calls upon the Federal agencies to report on their historic preservation activities and how they used their historic properties "to foster viable economic partnerships." The Advisory Council on Historic Preservation is charged with reporting to the President on the agencies' "contribution to local economic development."

Guidance from the Office of Management and Budget indicates that agencies should use existing data (and thereby, theoretically, reduce the costs of complying with the executive order). There is no specific guidance, however, on how to measure these economic impacts in ways that provide meaningful and useful data for quantitative analysis.

Herein lies the challenge for agencies. How does a Federal agency know how much its historic properties are contributing "to the local community and its economy?" Economically speaking, what is a viable economic partnership? What should its goals be? What should the partnership achieve?

During the past decade increasingly sophisticated economic analyses have measured the total economic impact of historic preservation activities. These studies largely measured both public and private preservation at the city or State level.

However, very few comparable studies of Federal historic properties have been undertaken. Some empirical analyses have been done, but the majority of these studies are limited in scope, focusing on only one component of the economy, such as visitor expenditures or property values, and, in particular, ignoring the indirect and induced effects on the economy. Information on how Federal properties have already impacted local and regional economies is largely anecdotal. Some empirical analyses have been done but the majority of these studies are limited in scope, focusing on only one component of the economy, such as tourism, or ignoring the indirect and induced effects on the economy. None of the published work to date provides a comprehensive analysis useful for Federal agencies trying to measure the economic success of their programs.

The consequence of this dearth of economic analysis of Federal preservation activities is that the true economic value of Federal historic properties is unknown or underestimated and, therefore, underreported.

This puts Federal historic properties at risk. Investments in historic preservation may be cut by Congress, the President, and agency officials simply because the economic wealth they create is not understood. For example, an agency's decision to defer maintenance on a historic structure may appear to be a cost savings, but it causes economic loss in terms of creating skilled and higher-paying jobs (e.g., custodian versus a restoration craftsman) and putting wealth in local communities. Return on investment (ROI) analyses usually fail to consider

the loss of economic benefits beyond the individual project budget. Even broad cost-benefit analyses of historic preservation projects that might begin to capture some of the economic considerations are hard to find.

Developing estimates of the economic impact of an agency's preservation program depends on two factors: the availability of quality data and the skills of an economic analyst. As with any empirical analysis, the results are only as good as the data inputs. Unfortunately, government-specific data needed to create these models may be severely limited. A number of General Accounting Office (GAO) reports have cited the lack of reliable data and the continuing problems related to analysis of physical property management. While some data—such as NPS visitor attendance and expenditure numbers—are relatively easy to obtain, corresponding figures on rehabilitation and operations components may be less accessible. Personnel and wage and salary data, which may be readily available, could require various economic adjustments in order to prove useful.

Despite these limitations in economic expertise and data, Federal agencies can still begin to measure economic success of their historic assets by using the results of previous quantitative studies of Federal historic properties and extrapolating from them to get a picture of what Federal agencies can expect from their investments. Even studies limited in scope may provide sufficient information for agencies to demonstrate their impact on a community. The economic models discussed previously provide a first step that agency analysts can build upon.

In order to bring political attention to the economic, as well as heritage protection, benefits brought about by an agency's historic preservation program, agency reporting on its "contribution to local economic development" should be a priority.

Opportunities for Demonstrating Economic Vitality

Preservation of federally controlled historic properties can contribute to local and regional economies. Federal agencies can stimulate the economies of communities where their historic properties are located while simultaneously meeting their own mission needs and budgetary concerns. Land-managing agencies can help communities meet many economic goals as part of their stewardship efforts. Economic impact analysis provides one way to quantify the relationship between Federal properties and local communities. Regional and local economic development may not be an explicit agency mission, yet it can be a powerful result of Federal presence in an area.

Regional and local economic development may not be an explicit agency mission, yet it can be a powerful result of Federal presence in an area.

There are numerous Federal projects that could yield data that are useful for measuring economic impacts. The General Services Administration (GSA), which has over 400 historic buildings in its portfolio, has many examples of how historic buildings contribute to economic growth. One of these, for instance, is the Alexander Hamilton Customs House in New York City, which provides space both for Federal courts and also for the Smithsonian Institution's Museum of the American Indian. In addition, its grand interior can be rented by movie companies on a short term basis. Another example is Pioneer Courthouse in Portland, Oregon, which was built in 1869 and rehabilitated by GSA in 1973 for the U.S. Court of Appeals and a branch of the U.S. Post Office. GSA is now investing in seismic retrofit, a preservation treatment that has an economic impact. Both of these properties are causing economic activities of operation and heritage tourism that are generating an unmeasured amount of economic consequences.

GSA's experience suggests that local economies have gained when that agency has leased its historic buildings. In Washington, D.C., for instance, GSA has completed a 60-year lease of the former U.S. Tariff Commission Building to the Kimpton Hotel and Restaurant Group, which has converted the building to the Hotel Monaco. Investment in rehabilitation included $5 million by GSA in exterior work and $32 million by the Kimpton Group on interior rehabilitation. Other examples of GSA leases include the Galveston Customs House in Texas, and the McCormack Post Office and Courthouse in Boston, Massachusetts. While there is no documentation study, it seems clear that when GSA has outleased its historic building space, it has increased value-added and tax revenues in addition to direct and indirect effects of expenditures by new occupants in the workplace neighborhood. That is true also when GSA has leased space from private property owners. In Ogdon, Utah, among other places, GSA has leased

a historic warehouse to provide offices for the Social Security Administration, a Federal agency, thereby bringing a wide range of economic benefits to that city.

Historic Federal properties that are no longer needed by the U.S. government can be transferred to State, county, and local governments through the Historic Surplus Property Program. New economic uses have been put in over 100 historic properties transferred by GSA through this program since 1949, including lighthouses, post offices, customs houses, prisons, and military facilities.

GSA, in collaboration with the National Main Street Center, has recently published a study of the economic impact of Federal properties in historic downtown areas. Baltimore, Maryland, Athens, Georgia, and Springfield, Illinois, were selected as pilot sites for the study. Results of this analysis show the importance of measuring the value of locating Federal offices in historic downtowns, in accordance with E.O. 13006. As reported, in all three pilot sites, "the economic impact of Federal government agencies is significant – much more so than we had anticipated at the beginning of the project."[42] Because the Federal agencies maintained a presence in the three study areas, the combined agencies contributed more than $407,000 annually (direct and indirect economic impacts combined) to the local economies of the pilot sites.

"[T]he economic impact of Federal government agencies is significant – much more so than we had anticipated at the beginning of the project."

U.S. General Services Administration, *Measuring the Economic Impact of Federal Facilities on Central Business Districts*

Historic properties now or recently in the inventory of the Department of Defense (DoD) offer additional opportunities to study the economic effects of preservation. At Fort Sam Houston in San Antonio, Texas, and Fort McPherson in Atlanta, Georgia, rehabilitation of multiple historic buildings has generated measurable local economic activities. In West Point, Annapolis, and Colorado Springs—where the three U.S. military academies are located—heritage tourism dollars as well as general tourism dollars flow into the communities. Although many military bases are now closed to tourists, DoD contributes to heritage tourism even when it provides only brochures and videos with historical information to local visitor centers.

The Base Realignment and Closure Acts (BRAC) of the 1990's provided for the transfer of military installations—including several historic ones—to local and private ownership. Fort Sheriden in Lake Forest, Illinois, is one such example; there rehabilitation of the historic buildings contributed to the economic vitality of the area. While BRAC has closed some facilities, it has realigned, or added to, the activities at others such as the Washington Navy Yard, a National Historic Landmark. There, DoD has rehabilitated and adaptively used several of the

[42] U.S. General Services Administration, *Measuring the Economic Impact of Federal Facilities on Central Business Districts*, Washington, DC: National Trust for Historic Preservation, 2004.

Yard's oldest buildings; the increase in personnel and investment in the physical facilities have stimulated measurable revitalization of the adjoining mixed-use neighborhood in Washington, D.C.

Activities of the U.S. Customs Service, the Department of Veterans Affairs, the U.S. Postal Service, the U.S. Forest Service, and the U.S. Fish and Wildlife Service provide additional examples of agency investments in historic properties that have added to economic vitality. The Customs Service policy to continue occupancy of its historic customs houses, such as the Norfolk Customs House, has led to investments in rehabilitation of those buildings. The Department of Veterans Affairs, which controls over 1,600 historic buildings, is studying a number of options, including out-leasing, that will preserve its buildings while increasing their use and thus their economic impact. Likewise, the Postal Service has invested in its facilities in Grand Central Station in New York City and in the Rincon Center Post Office in San Francisco, which have contributed to economic vitality. Historic and archeological sites in national wildlife refuges are heritage tourism destinations and in many of the national forests, volunteers in the Passport in Time program are expending dollars on equipment, accommodations, and travel for unique tourist experiences.

Activities under Section 111 of the National Historic Preservation Act should produce specific economic data. Section 111 gives Federal agencies the authority to use proceeds from out-leasing historic properties to defray historic preservation costs, and to generate income for their preservation programs. Section 111 projects include GSA's out-lease of 17,600 square feet of underused space in Chicago's historic Railroad Retirement Building, used now for a restaurant and retail center. The National Park Service has out-leased buildings at Fort Hancock in New Jersey, and at the Presidio in San Francisco, California. Under the Maine Lights project the Coast Guard has out-leased 28 historic lighthouses to organizations that will ensure the preservation, repair, and care of these popular landmarks. Revenues from these leases create direct economic benefits, such as maintenance jobs, as well as indirect and induced benefits.

Examples of studies that have looked at total economic impact of preservation have been prepared for a number of States and cities. Although these studies model the return on both public and private investment, they provide useful information for developing economic theories that can be tested with regard to investments in Federal historic properties. Studies that appeared to be most useful to Federal agencies are included in the *Suggested Readings* at the end of this paper.

A thorough estimation of the economic impacts of alternative uses of a historic property requires the skills of an economic analyst. Nevertheless, the framework for thinking about historic preservation economics provided here should start the Federal manager thinking about the different benefits preservation actions will create. Reports of economic impacts can become part of the E.O. 13287, Section 3 reports to the Advisory Council on Historic Preservation.

A database of existing information, examples, and case studies of successful partnerships, stewardship, heritage tourism, and economic development involving the Federal agencies is being developed by the Advisory Council in collaboration with the Economic Development Administration; it will provide examples for agencies interested in undertaking *Preserve America* projects. In addition, in accordance with the Executive Order, the National Park Service, through its Federal Preservation Institute, has established a clearinghouse of economic materials pertaining to historic preservation that will be available in the fall of 2005 on the Historic Preservation Learning Portal, an Internet site.

There is a growing awareness of the significance of historic preservation investments for local, regional, and national economies. There are tools for measuring economic effects. There is data available for many Federal projects. Executive Order 13287, *Preserve America*, is a mandate to undertake the studies that demonstrate how federally owned historic properties create economic wealth. Such studies can provide Federal decision makers with information about the effects that alternative historic preservation activities can make to economic growth in a community, its State, and the nation. The results of such studies will also reveal the significance of the historic preservation economic sector and reasons for further investment in Federal historic properties.

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Appendix A

Review of Models

National Trust for Historic Preservation Methodology

The National Trust's methodology was developed in 1991 (Leithe, Muller, Petersen, and Robinson 1991). This important work included techniques for estimating the benefits of construction activity, real estate activity (e.g., property value appreciation), and commercial activity (e.g., historic tourism) in Fredericksburg, Virginia; Galveston, Texas; and for the State of Georgia. For instance, in Fredericksburg, historic preservation was found to have the following effects:

- Over an eight-year period, 777 rehabilitation or repair projects totaling $12.7 million were undertaken in the historic district. These projects created approximately 293 construction jobs and approximately 284 jobs in sales and manufacturing.

- Property values, both residential and commercial, experienced a dramatic increase. Between 1971 and 1990, residential property values in the historic district increased an average of 674 percent as compared with a 410 percent average increase in properties located elsewhere in the city.

- In 1989 alone, $11.7 million in tourist purchases were made within the historic district, and another $17.4 million outside the district, with secondary impacts resulting in $13.8 million.

Donovan Rypkema used the National Trust methodology to author a report on the impact of preservation in Virginia (Rypkema 1996). This report made a persuasive argument as to how preservation of historic structures and sites in Virginia has generated billions of dollars for the State's economy and has created thousands of jobs through tourism, increased property values, job creation, business formation, and income through rehabilitation projects.

Preservation Economic Impact Model (PEIM)

The Preservation Economic Impact Model (PEIM) was developed by the Center for Urban Policy Research at Rutgers University through a grant from the National Center for Preservation Technology and Training of the National Park Service. It is based on the R/Econ I-O Model. This model includes separate and optional components for economic activities of building rehabilitation, the operation of historic museums and sites, and heritage tourism. It also includes a fourth component, Main Street activities. Economic benefits are employment, income, and gross domestic product. The model provides default values for the multipliers used to estimate indirect and induced effects. This model was used by the Center for Urban Policy Research and the Center for Governmental Responsibility at the University of Florida to estimate the total economic effects of the major components of historic preservation in Florida. Earlier studies by the Center for Urban Policy Research examined statewide impacts of preservation in New Jersey and Texas. The New Jersey, Florida, and Texas reports considered the direct and total (with multiplier) effects of different components of historic

preservation in these States, including historic rehabilitation, heritage tourism, and the operation of such preservation efforts as the Main Street Program.

Money Generation Model (MGM2)

The National Park Service developed the Money Generation Model (MGM) in 1990 to estimate the local economic impacts of visitor spending in national parks. The model was updated by Michigan State University in 2000 to facilitate ease of use. MGM2 estimates how tourism activities, as measured by tourism expenditures, generate three types of benefits: new sales as measured by increased purchases of goods and services, increased sales tax and income tax revenues, and number of new jobs created. The model has been used extensively to measure the impact of individual parks. The model's strength is on its ease of use and availability of data. It is based on a simple equation: economic impacts equal the number of visits times spending per visit times the appropriate regional economic multipliers. The model offers several sets of regional economic multipliers from which the user may choose - these are usually derived from input-output models of the region's economy (RIMS II, IMPLAN, etc.). The model provides ballpark estimates with minimal data gathering but has serious limitations – estimates are limited to visitor spending and do not include the impact of park employees on the economy. However, because it uses a multiplier the model inherently measures direct effects, indirect and induced effects.

Regional Input-Output Modeling System (RIMS II)

The Bureau of Economic Data (BEA) prepares regional economic data for the United States. Estimates of State and local personal income and of gross state product are readily available. BEA will also prepare estimates of economic multipliers for any State or county on a reimbursable basis. The regional multipliers are derived from the Regional Input-Output Modeling System (RIMSII). RIMS II is based on accounting framework using an I/O table and produces regional multipliers by NAICS industry. "To effectively use the multipliers for impact analysis, users must provide geographically and industrially detailed information on the initial changes in output, earnings or employment that are associated with the project or program under study. The multipliers can then be used to estimate the total impact of the project or program on regional output, earnings and employment."[43]

Unfortunately this doesn't work well for historic preservation on the whole since it is not a recognized industry. However, it can be used for a specific activity within historic preservation, such as construction jobs. RIMS II multipliers have been used for years to assess the potential impact of closing defense facilities.

[43] Bureau of Economic Analysis, Regional Economic Accounts

Applications of Models

Federal agencies have used these models to measure the economic impacts of their cultural assets. The Money Generation Model Version 2 (MGM2) model has been used extensively within the park service to model the impacts of visitor expenditures on jobs, income and value-added. Daniel J. Stynes and Ya-Yen Sun reported 2001 estimates for individual parks and system wide estimates (Stynes and Sun 2003). Their findings for the economic impacts of visitor spending in the National Parks is summarized here:

- There were 280 million recreation visits across 348 separate NPS units in 2001.

- Visitor spending of $10.6 billion in local regions around the park translated to $8.6 billion in direct sales. (The difference of $2 billion is attributed to goods that were not made locally such as gas, groceries, clothing, or souvenirs. This spending immediately leaks out of the local economy.)

- The direct effects of this spending was 212,000 local jobs, mostly tourism-related, with a total payroll of $3.1 billion.

- Indirect and induced effects added 55,000 more jobs for a total of 267,000 jobs at $4.5 billion.

- The direct effects of visitor spending also created $4.6 billion in valued-added (the sum of personal income to households, rents and profits, and use-taxes).

- Value-added, including indirect and induced effects totaled $7.0 million.

The National Trust for Historic Preservation report, “Dollar$ and Sense of Battlefield Preservation: The Economic Benefits of Protecting Civil War Battlefields” provided examples of how many Civil War battlefields contribute income to the surrounding local communities. The report drew largely on the direct impacts calculated in other studies and then applied a simple calculation (direct effects times two) to estimate the multiplier effects. A value of 2 was assigned to the multiplier since it was the midpoint of the range of multipliers provided in the Money Generation Model. This report was not limited to visitor spending; it did examine the operations and maintenance component. Broken out the authors of the report looked at:

- “Expenditures by public agencies for land acquisition, management, and maintenance of battlefields

- Expenditures by tourists for lodging, meals, and other travel-related products, sales, and services

- Expenditures by travel-related businesses and their employees for secondary or indirect goods and services

- Tax revenue generated by taxes on purchases by visitors and on services to visitors, such as hotel and restaurant taxes, income taxes from businesses

and employees serving visitors, and real estate taxes on land with increased value because it is adjacent to a battlefield."

Federal agencies can employ these models to get information that demonstrates the contribution of their historic preservation activities to the "vitality and economic well-being of the Nation's communities."

The **Federal Preservation Institute,** a program of the National Park Service, provides historic preservation information and training to Federal agencies. Its programs include a monthly training meeting in Washington, D.C., that is open to any Federal agency staff, contractor, or person responsible for meeting Federal historic preservation laws. In addition, it provides web-based training materials, consultation to Federal agencies on the development of historic preservation training, information and awareness materials, and Federal preservation policy papers. Currently, it is developing the first international Historic Preservation Learning Portal, an Internet clearinghouse of electronic historic preservation information.

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