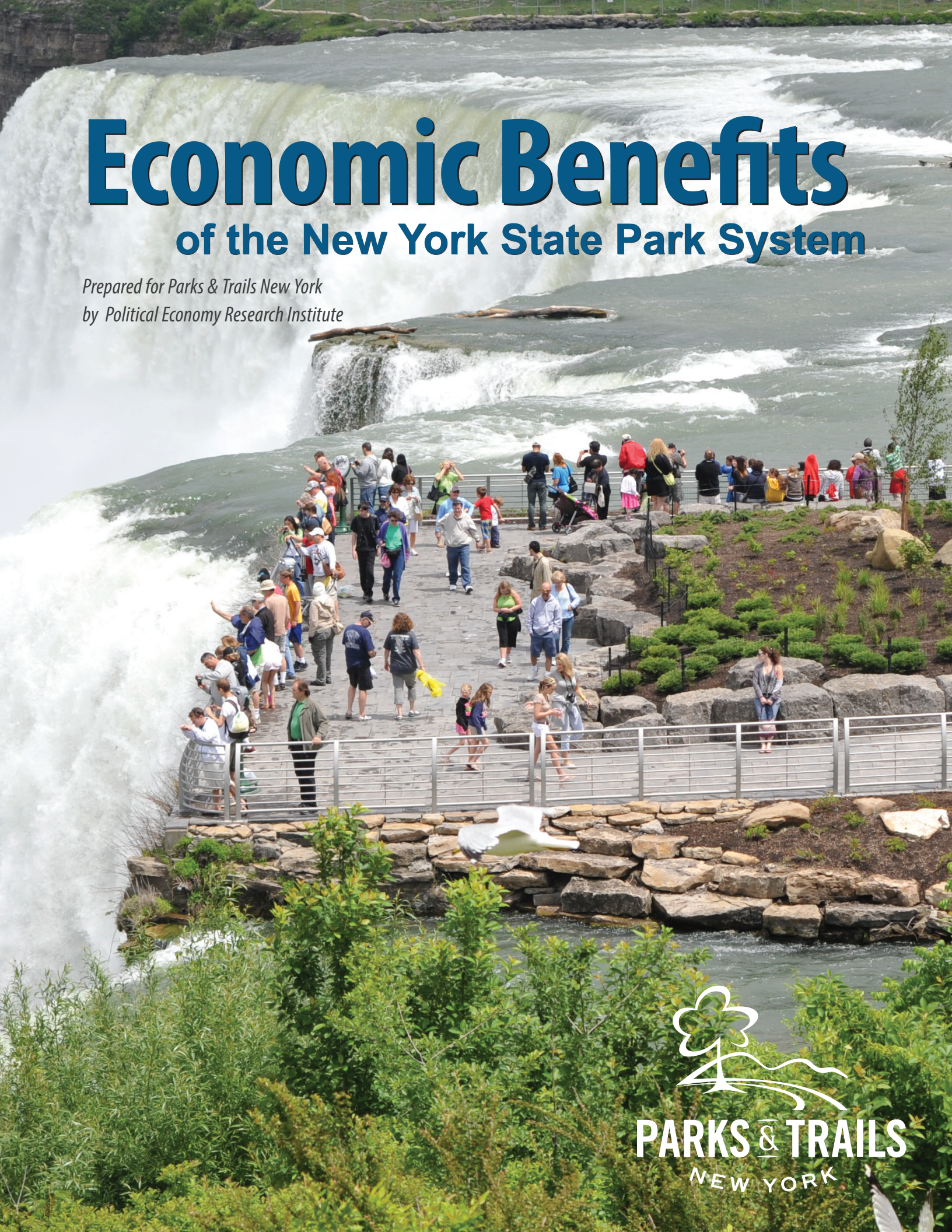
Economic Benefits
of the New York State Park System

Prepared for Parks & Trails New York
by Political Economy Research Institute



PARKS & TRAILS NEW YORK

The report details the economic benefits of the New York State Park System: $5 billion in sales, 54,000 jobs, and about 2.9 billion in state GDP. However, the numbers do not reflect many positive impacts that are more difficult to measure. Some of these benefits may include:

- ***Increasing property values for properties in close proximity to parkland***
- ***Increasing tax receipts***
- ***Reducing pollution***
- ***Mitigating impacts of climate change***
- ***Promoting health and wellness***
- ***Fostering a sense of community***

EXECUTIVE SUMMARY

The New York State Park system provides both economic and non-economic benefits to park visitors and New York State residents. State parks create jobs throughout New York and increase state GDP as a result of spending by park visitors and by the state government on park operations and capital improvements. Parks also contribute to increased property values, improved health outcomes and social capital, and cleaner air and healthier environments.

This study uses data provided by the New York State Office of Parks, Recreation, and Historic Preservation (OPRHP) as well as findings from studies of other state parks in order to quantify the level of employment and state GDP that is supported by the New York State park system. It measures both the economic significance and the economic impact of visitor spending and state government spending. Economic significance is a broader measure which includes both local and non-local visitors, while economic impact is a more narrow measure that estimates the impacts of visitors from more than 50 miles from the park.

Using one year of data from April 2015 through March 2016, the study finds that:

- New York State parks received 67 million visits at the time of this study
- Total spending by local and non-local visitors was about $4 billion
- Including all visitor spending, the park system supported about 45,000 jobs and added $2.4 billion in state GDP
- State spending of $543 million plus visitor spending resulted in total spending of about $5 billion, which supported nearly 54,000 jobs within the state of New York and generated about $2.9 billion in state GDP
- Each dollar of New York State Parks spending led to about 9 dollars in sales statewide

INTRODUCTION

The New York State Park system consists of more than 250 individual parks, historic sites, recreational trails, and boat launches, encompassing nearly 350,000 acres. In the year from April 2015 through March 2016, the New York State park system received over 67 million visits. In this report, we estimate the economic significance and impacts of visitor spending and state government spending in the park system, based mainly on data from the New York State Office of Parks, Recreation, and Historic Preservation (OPRHP). The report further discusses some of the additional benefits of state parks such as health, recreation and the environment.

The 67 million visits to the New York State park system resulted in about $4 billion in spending by local and non-local visitors. This includes day trips as well as overnight trips, with visitors spending money on park entrance and use fees, sporting equipment, food and drink, transportation, lodging, and other expenses. Visitor spending creates jobs and revenue not only for the park system, but also has a multiplier effect, as jobs and revenues are created in supporting industries throughout the local economy. The total economic significance of the $4 billion in visitor spending is about 45,000 jobs and $2.4 billion additional state GDP.

The park system received $543 million in state government funding and spending by partner organizations for its daily operations as well as capital improvements to the facilities.[1] This funding also has a multiplier effect, and supported about 9,000 jobs and led to about $485 million in additional state GDP.

Combining the effects of both visitor spending and state funding, the park system supported about 54,000 jobs and $5 billion in spending over the year from April 2015 to March 2016. This means that each dollar of state funding supported 9 dollars of sales throughout the state of New York.

ECONOMIC SIGNIFICANCE & ECONOMIC IMPACTS

State parks provide many benefits to the communities in which they are located, including both economic and non-economic effects. Economic benefits include employment in the parks themselves, employment in the industries that supply goods and services to the parks, and jobs in the various establishments at which park visitors spend time and money, including restaurants, grocery stores and sporting goods stores, among others. Various studies have also found that parks increase the value of surrounding properties. Significant non-economic benefits include health and wellness, and ecosystem services such as carbon sequestration and water management.

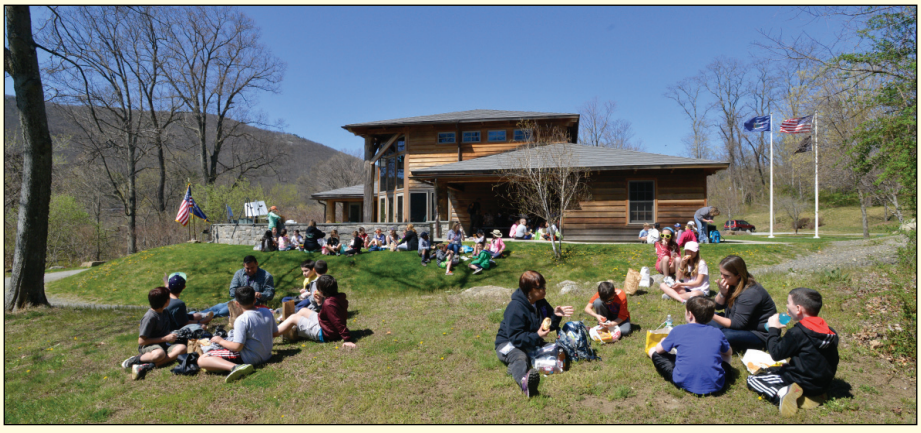
Combining both visitor and state government spending, the study finds that the economic significance of the New York State park system supports $5 billion in sales and about $2.9 billion in state GDP.

This study quantifies the economic significance and impacts of two categories of spending: (1) visitor expenditures, including both day and overnight visitors; and (2) capital and operations expenditures by New York State.[2] Other economic and non-economic benefits of the parks are discussed but not explicitly measured in this study.

OVERVIEW OF SOURCES OF ECONOMIC ACTIVITY

Visitor Spending

The two main categories of park expenditures are (1) visitor expenditures and (2) capital and operations expenditures by OPRHP. Visitor expenditures, in turn, are separated into two categories – spending by local users and by non-local users. "Non-local" is defined as those visitors coming from 50 miles or farther from the park. Economic significance of visitor spending is based on spending by both local and non-local visitors, while economic impacts exclude the spending by local users, based on the assumption



[1] State government spending includes the operating expenses of significant not-for-profit partners and private concessionaires that provide public services on behalf of the state.

[2] An important point to keep in mind when reviewing a study of state parks is that there is a difference between "economic impact" and "economic significance." Economic significance is the full amount of employment, output, and state GDP generated by park-related expenditures, including by local users and non-local users. Economic impact, on the other hand, can be seen as economic activity that would not have taken place had it not been for the existence of the park.

that locals would spend money on a different activity in the local economy if the park did not exist. Of course, one could argue that if a nearby park did not exist, local residents desiring a park experience would just go farther afield, perhaps even out of state, to visit a park.

Park visitors spend money on entrance and parking fees, as well as on food and beverages, gas or other transportation expenses, sporting goods, and lodging for overnight stays. This spending creates economic activity within the park as well as within local businesses providing the goods and services to park visitors. The methods for estimating the economic impacts of this spending is discussed below.

Visitor spending for New York State parks is derived from two sources of data. First, OPRHP provided visitation numbers for each of the park regions in the state. Park visitation from April 1, 2015 through March 31, 2016 is shown in Table 1.

TABLE 1

VISITATION BY REGION

APRIL 1, 2015 - MARCH 31, 2016

PARK REGION	TOTAL ATTENDANCE
Allegany	1,768,799
Capital/Saratoga	4,313,767
Central New York	2,763,212
Finger Lakes	3,990,865
Genesee	1,531,055
Long Island	21,681,798
New York City	7,011,121
Niagara Frontier	12,302,459
Palisades	5,493,855
Taconic	4,583,259
Thousand Islands	1,751,314
STATEWIDE	**67,191,504**

TABLE 2

ATTENDANCE & SPENDING BY PARK VISITOR

	ECONOMIC SIGNIFICANCE		ECONOMIC IMPACT	
PARK REGION	TOTAL ATTENDANCE	TOTAL SPENDING	NON-LOCAL ATTENDANCE	TOTAL SPENDING BY NON-LOCALS
Allegany	1,768,799	136,114,301	1,080,933	105,727,142
Capital/Saratoga	4,313,767	220,685,594	471,818	50,963,791
Central New York	2,763,212	158,181,701	655,677	65,079,322
Finger Lakes	3,990,865	253,483,110	1,512,328	143,991,331
Genesee	1,531,055	93,765,405	529,981	49,541,974
Long Island	21,681,798	1,256,502,962	3,335,661	446,044,620
New York City	7,011,121	393,513,913	876,390	122,506,241
Niagara Frontier	12,302,459	677,053,214	2,343,326	237,098,857
Palisades	5,493,855	286,101,819	593,930	69,642,904
Taconic	4,583,259	307,477,573	1,571,403	174,425,924
Thousand Islands	1,751,314	145,942,290	1,192,924	121,274,873
STATEWIDE	**67,191,504**	**3,928,821,881**	**14,164,371**	**1,586,296,978**

While OPRHP collects data on the number of visitors, it does not collect or maintain data on the expenditures of these visitors. In order to estimate visitor spending, this study relied on a number of other park studies conducted in recent years in other areas. Using seven studies of regional or state park systems, the study derived estimates of the average expenditures by local visitors and by non-local visitors, and then applied these figures to the visitation numbers above to estimate visitor spending in New York state parks. A detailed explanation of the data and methods for these estimates is presented in the appendix.

Table 2 shows spending by visitors. Local and non-local visitors have a combined spending amount of about $4 billion. Non-local visitors, defined here as visitors coming from 50 miles or more from the park, account for over 14 million of the park visits and spend about $1.6 billion.

STATE EXPENDITURES ON OPERATIONS & CAPITAL IMPROVEMENTS

The other source of spending that creates economic activity is expenditures by the state government on the operations of the park system as well as capital expenditures to

maintain and improve parks and historic sites. New York state spent a total of $543 million on operations and capital expenditures in the year from April 2015 to March 2016, including $353 million in operations and $190 million in capital expenditures. Park spending by region is shown in Table 3.

ESTIMATING ECONOMIC SIGNIFICANCE & IMPACTS

This study, like many other economic impact studies of park systems, uses an input-output (I-O) model to estimate the employment, output, regional GDP, and labor income resulting from the spending detailed in Table 3. Here the study uses IMPLAN v3, an I-O model built and maintained by the Minnesota Implan Group using data from the U.S. Bureau of Economic Analysis, U.S. Bureau of Labor Statistics, and other sources. I-O models are useful in conducting impact analysis because they capture the various linkages throughout the economy, including between businesses that buy from and sell to other businesses, as well as the purchases made by households and governments. Using an I-O model can capture the direct effects of a set of purchases, such as the employment created in the businesses purchased from, and can also capture the indirect effects, which are the jobs and other economic activity created throughout the supply chain.

The direct impacts of visitor spending, for example, would include the employment created in restaurants, hotels, and other businesses at which park visitors spend money. The indirect employment in this case would include jobs in industries such as trucking services, building management, accounting, agriculture, and the many other industries that supply goods and services to restaurants and hotels.

One additional level of economic impact is what is called "induced" effects. The induced effects are the economic activity generated when workers in the direct and indirect industries spend their earnings. So, for example, as restaurant and hotel workers spend their paychecks on groceries, healthcare, and education, jobs are created in those industries.

Total spending of $5 billion in expenditures support nearly 54,000 jobs within New York State.

This report estimates the direct, indirect, and induced impacts of park visitor spending and state government spending on the park system. Using IMPLAN v3 along with New York data for 2014 (the most recent available at the time of writing), the report estimates employment, output, value-added, and labor income for each of the park regions as well as the state as a whole. The direct and indirect multipliers are generated by the model. The induced multipliers are estimated based on the ratio of induced to direct plus indirect jobs that was estimated in a previous study conducted in 2009. Further details are in the appendix. The results of the economic modelling are presented later in this study.

IMPACTS OF VISITOR SPENDING

Of the 67 million visits to the New York State park system received from April 2015 through March 2016, about 14 million were non-local visitors, defined here as coming from 50 miles or more from the park. It is important to keep in mind, when comparing this study to other park studies, that there is no consistent metric for establishing a "non-local" radius. Some studies use a radius as small as 20 miles. This study uses a 50-mile radius, which represents about a one-hour drive from a park, and is a more conservative approach than some other studies.

TABLE 3

State Government Expenditures on the Park System

STATE EXPENDITURES			
PARK REGION	**OPERATING**	**CAPITAL**	**TOTAL**
Allegany	9,492,490	10,351,782	19,844,272
Capital/Saratoga	69,446,147	11,605,542	81,051,689
Central New York	15,496,751	17,350,903	32,847,654
Finger Lakes	15,205,872	13,367,294	28,573,166
Genesee	11,170,518	9,322,762	20,493,280
Long Island	102,177,474	33,613,166	135,790,640
New York City	19,383,301	13,523,368	32,906,669
Niagara Frontier	46,746,092	30,661,890	77,407,982
Palisades	31,283,805	17,070,289	48,354,094
Taconic	20,778,726	24,631,935	45,410,661
Thousand Islands	12,372,443	8,438,028	20,810,471
STATEWIDE	**353,553,619**	**189,936,959**	**543,490,578**

Local visitors use the park for day-use only, and the study assumes will sleep in their homes and purchase fewer restaurant meals than visitors coming from further away. As shown in the appendix, local visitors spend an average of $44.18 per visit, for park fees, food and beverages, gas, and other expenses. For non-local users, which includes both day-use and overnight visitors, the study uses a weighted average spending amount in the range of $93.48 to $139.79, depending on the park region and cost of living in the area.

Tables 4 and 5 show the economic significance of all visitors to the parks, and then show the economic impacts of just non-local users. The impacts are a subset of the economic significance. The economic significance shows the full contribution of parks to the local economy. The economic impact shows the effects of spending by non-local visitors that might not happen in the local area were it not for the existence of the park.

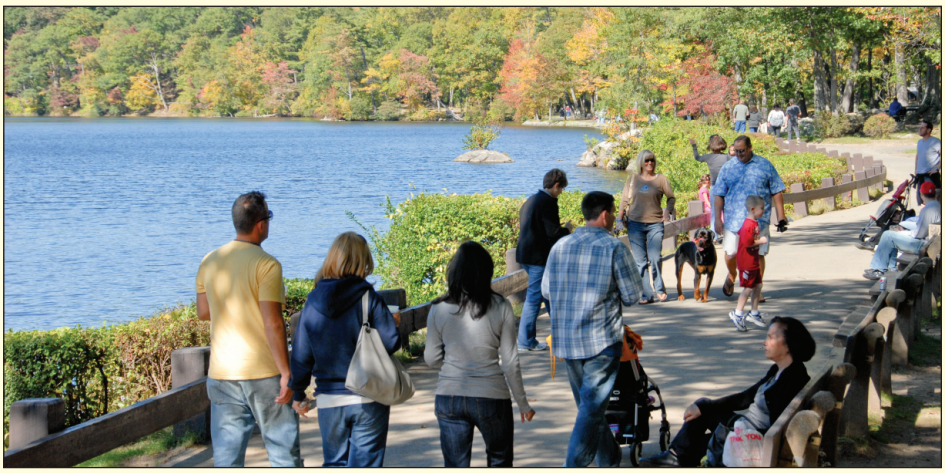


TABLE 4

Economic Significance: Combined Effects of Local and Non-Local Visitor Spending

PARK REGION	EMPLOYMENT	OUTPUT	VALUE-ADDED	LABOR INCOME
Allegany	1,671	124,355,810	66,496,068	41,916,157
Capital/Saratoga	2,581	230,435,120	131,631,188	85,418,680
Central New York	1,905	162,685,315	91,088,214	59,002,498
Finger Lakes	2,847	242,346,675	137,653,576	90,892,952
Genesee	1,116	98,578,546	56,895,994	36,955,331
Long Island	14,114	1,314,082,322	791,915,661	525,012,872
New York City	3,609	405,316,980	264,720,881	180,723,534
Niagara Frontier	8,816	734,505,278	400,958,338	250,454,136
Palisades	3,154	283,096,806	169,428,911	109,698,351
Taconic	3,242	319,536,139	193,790,148	127,834,355
Thousand Islands	1,711	135,324,418	73,737,076	47,634,730
STATE	**44,765**	**4,050,263,408**	**2,378,316,056**	**1,555,543,597**

ECONOMIC SIGNIFICANCE: COMBINED EFFECTS OF LOCAL & NON-LOCAL VISITOR SPENDING

Table 5 shows that visitor spending to New York state parks and historic sites contributes close to 45,000 jobs to the state when including direct, indirect, and induced jobs. About $4 billion dollars of sales result from a combination of visitor spending by locals and non-locals. Of these $4 billion in sales, about $2.4 billion represents an increase in value-added, also known as state GDP. And of this, about $1.5 billion is for the wages and salaries of the 45,000 workers employed in the direct, indirect, and induced industries.

The regions with the greatest economic contributions are Long Island and Niagara Frontier, which receive about 21 million and 12 million visits each year, supporting $1.3 billion and $734 million in sales, respectively. On average, across all park regions and visitor types, each visitor spends an average of about $60 and contributes about $36 to New York state GDP.

ECONOMIC IMPACTS: EFFECTS OF NON-LOCAL VISITOR SPENDING

Economic impacts, as opposed to economic significance, can be seen as the "net" effect of the park to the local economy. This study bases economic impacts on spending by visitors who travel from 50 miles or farther from the park. Based on visitation data from OPRHP, about 14 million visits are by non-local park attendees. These 14 million visits support over 18,000 jobs (direct, indirect, and induced), result in over $1.6 billion in sales, generate nearly $1 billion in state GDP, and support over $600,000 in wages and salaries for workers in New York State.

The share of non-local visitors by region is shown in the appendix. Overall statewide, about 31% of park visits are by non-local visitors. There is quite a bit of regional variation, from a low of 11% in regions such as Palisades and Saratoga, to highs of 61% and 68% in Allegany and Thousand Islands, respectively. [3]

TABLE 5

Economic Impacts: Effects of Non-Local Visitors

PARK REGION	EMPLOYMENT	OUTPUT	VALUE-ADDED	LABOR INCOME
Allegany	1,298	96,593,704	51,650,997	32,558,485
Capital/Saratoga	596	53,215,288	30,398,107	19,726,071
Central New York	784	66,932,204	37,475,632	24,274,885
Finger Lakes	1,617	137,665,268	78,194,250	51,631,831
Genesee	589	52,085,049	30,061,619	19,525,752
Long Island	5,010	466,484,654	281,121,279	186,373,748
New York City	1,124	126,180,697	82,411,216	56,261,598
Niagara Frontier	3,087	257,218,131	140,412,543	87,707,123
Palisades	768	68,911,423	41,242,385	26,702,772
Taconic	1,839	181,266,509	109,933,305	72,517,892
Thousand Islands	1,421	112,451,651	61,273,908	39,583,426
STATE	**18,134**	**1,619,004,579**	**944,175,240**	**616,863,685**

[3] As shown in the appendix, the sample data used for non-local percentages results in a straight average of 31% non-local visitors statewide. However, once we apply each regional percentage to that region's visitation numbers, the weighted average of non-local visitors is 21%, since the parks with higher percentages of non-local visitors also tend to be the parks where overall visitation numbers are lower.

GOVERNMENT EXPENDITURES

SOURCES OF GOVERNMENT EXPENDITURES

In addition to the impacts generated by visitor spending, there are economic impacts created by state government spending on operations and maintenance of the parks and historic sites, as well as spending on capital improvements to these facilities. For this report, OPRHP provided data on the O&M expenditures as well as capital expenditures by park region. As seen in Table 5, these totaled about $353 million for O&M across the state, and about $190 million in capital, for a combined amount of $543 million in state spending on parks and historic sites.

IMPACTS OF GOVERNMENT EXPENDITURES

Government expenditures on the park system generate many economic benefits. The impacts to the New York state economy include about 9,000 jobs, over $1 billion in sales, and generate almost $500 million in state GDP, of which $372 million is for wages and salaries for workers in the state. The details by region and statewide are shown in Table 6.

PUTTING IT ALL TOGETHER: COMBINED EFFECTS OF GOVERNMENT AND VISITOR SPENDING

The total contribution of the New York state park system is a result of both visitor spending and state government spending. Table 7 shows the combined spending amounts and total economic significance. Detailed impacts on employment, output, value-added, and labor income can be found in the appendix.

As we see in Table 7, the New York State park system supports a total of over $5 billion in spending throughout the state. This includes visitor spending of about $4 billion (combined local and non-local), as

TABLE 6

Economic Impacts of Spending by the NY Office of Parks, Recreation, and Historic Preservation

Total Impacts Across All State Spending

PARK REGION	TOTAL (O&C)	EMPLOYMENT	OUTPUT	VALUE-ADDED	LABOR INCOME
Allegany	19,844,272	302	30,329,280	13,119,367	11,070,565
Capital/Saratoga	81,051,689	1,379	150,691,834	68,928,020	53,378,640
Central New York	32,847,654	559	60,555,361	26,928,067	21,486,473
Finger Lakes	28,573,166	440	46,550,093	20,828,483	16,595,337
Genesee	20,493,280	308	37,369,467	18,895,517	14,844,050
Long Island	135,790,640	2,409	282,301,644	135,329,749	98,511,651
New York City	32,906,669	409	62,067,250	36,226,725	27,958,479
Niagara Frontier	77,407,982	1,319	157,195,151	70,631,582	54,264,254
Palisades	48,354,094	814	85,356,216	38,260,379	29,493,891
Taconic	45,410,661	661	83,416,850	42,408,401	32,995,439
Thousand Islands	20,810,471	328	32,035,909	13,567,364	11,488,726
STATE	**543,490,578**	**8,928**	**1,027,869,056**	**485,123,654**	**372,087,505**

well as state spending of $543 million that generates nearly $500 million in additional sales through indirect and induced effects. This combined total spending of $5 billion supports nearly 54,000 jobs within the state of New York and generates about $2.9 billion in state GDP, of which nearly $2 billion goes to wages and salaries. Looking at the full economic significance of the New York State park system, the study finds a 9:1 ratio of output to state dollars, meaning that every dollar spent by or on behalf of the state government leads to a total of 9 dollars in sales. Furthermore, each dollar in state government spending leads to five dollars in additional state GDP.

When we look only at impacts, a subset of the full economic contribution, we find that spending in the state totals over $2 billion, of which $543 million is state spending and over $1.5 billion is spending by non-local visitors. This combined spending supports over 27,000 jobs and adds $1.5 billion to state GDP, of which nearly $1 billion is for salaries.

The impacts produce a nearly 5:1 ratio of output to state spending, and $2.6 of additional GDP for each $1 of state funding. These are the "net" effects of the park system, arguably GDP that would not be created were it not for the park.

ECONOMIC AND OTHER BENEFITS NOT LINKED TO EXPENDITURES

State parks and open spaces provide additional benefits to communities beyond the economic impacts of job creation, increased regional GDP, and increased sales and labor-income. While this study focuses on estimating economic significance and impact, it also briefly reviews some of the additional services and benefits provided by state parks.

State parks are public goods. They provide value to a wide variety of people who use them as well as others who benefit from their proximity to parks. Homeowners living close to parks generally see higher resale values for their homes; residents living near parks experience cleaner air and other environmental benefits; users of parks tend to have increased activity levels and improved health outcomes.[4] Many of the benefits offered by parks are difficult to quantify. However, various attempts have been made to assess the positive impacts of parks by assigning market values to non-market goods. These include, for example, using estimates of avoided health care costs as a proxy for improved health outcomes, or using the avoided cost of water management to assess part of the environmental benefit. Below are a few examples of non-economic

The study finds a 9:1 ratio of output to state dollars, meaning that every dollar spent by or on behalf of the state government leads to a total of 9 dollars in sales.

TABLE 7

Economic Significance of Combined Visitor and State Government Spending

	Combined Spending			Combined Economic Significance			
PARK REGION	**TOTAL (O&C)**	**TOTAL VISITOR SPENDING**	**COMBINED STATE & VISITOR SPENDING**	**EMPLOY-MENT**	**OUTPUT**	**VALUE-ADDED**	**LABOR INCOME**
Allegany	19,844,272	136,114,301	155,958,572	1,973	154,685,090	79,615,435	52,986,722
Capital/ Saratoga	81,051,689	220,685,594	301,737,283	3,960	381,126,954	200,559,208	138,797,321
Central New York	32,847,654	158,181,701	191,029,355	2,464	223,240,676	118,016,282	80,488,971
Finger Lakes	28,573,166	253,483,110	282,056,276	3,287	288,896,767	158,482,060	107,488,289
Genesee	20,493,280	93,765,405	114,258,685	1,424	135,948,014	75,791,511	51,799,381
Long Island	135,790,640	1,256,502,962	1,392,293,602	16,523	1,596,383,967	927,245,410	623,524,523
New York City	32,906,669	393,513,913	426,420,582	4,018	467,384,230	300,947,606	208,682,014
Niagara Frontier	77,407,982	677,053,214	754,461,196	10,135	891,700,429	471,589,920	304,718,390
Palisades	48,354,094	286,101,819	334,455,913	3,968	368,453,022	207,689,290	139,192,242
Taconic	45,410,661	307,477,573	352,888,233	3,903	402,952,990	236,198,549	160,829,794
Thousand Islands	20,810,471	145,942,290	166,752,761	2,039	167,360,327	87,304,439	59,123,456
STATE	**543,490,578**	**3,928,821,881**	**4,472,312,459**	**53,693**	**5,078,132,465**	**2,863,439,709**	**1,927,631,102**

benefits provided by parks, including the impacts on home values as well as the environmental, health, and community benefits.

PROXIMATE VALUE: INCREASED VALUE OF PROPERTIES NEARBY PARKS

Many studies have found that parks and green spaces increase the value of adjacent properties. Home buyers are willing to pay a premium, in most cases, to live nearby a public park. The significance of this premium, otherwise known as the proximate value, varies widely depending on the location and type of park. The proximate value is also directly related to the distance from the park – the closer a property is to a park, the higher is the added property value.

One study specific to New York was conducted in Nassau and Suffolk counties by The Trust for Public Land (TPL). In its study, TPL reviewed a number of previous studies on property value effects and chose to use a "conservative" estimate of 5% added value to homes that are within 500 feet of a park or open space. They note that this is the average of high, medium, and low values of +15, +5, and -5 percent impact depending on park type and location. TPL finds that most studies of proximate value find positive impacts, but that there can be marginal or negative impacts if the parks or areas have dangerous or frightening aspects. Proximate value impacts are generally found within 2000 feet of the park, though the greatest effect is for properties within 500 feet of the park.

State Parks provide value to a wide variety of people who use a park as well as others who benefit from their proximity to a park. Homeowners living close to parks generally see higher resale values for their homes; residents living near parks experience cleaner air and other environmental benefits; users of parks tend to have increased activity levels and improved health outcomes.

A 2010 study from the University of Washington found that, "With few exceptions, studies find that homes adjacent to naturalistic parks and open spaces are typically valued at about 8% to 20% higher than comparable properties." A 2011 study of Connecticut parks and recreation areas found that "residences overlooking DEP-managed green spaces still attracted a 12.2% to 13.3% pricing bonus." Overall, these and other studies find a range of impacts from -5% to +20%, with the proximate value depending on park type and being greatest for those properties closest to the park. The increase in property values is a boon to the public treasury, as tax receipts increase accordingly.

TABLE 8

Economic Impacts of Spending by Non-Local Visitors and State Government

	Combined Spending			Combined Impacts			
PARK REGION	TOTAL (O&C)	TOTAL NON-LOCAL VISITOR SPENDING	COMBINED SPENDING	EMPLOY-MENT	OUTPUT	VALUE-ADDED	LABOR INCOME
Allegany	19,844,272	105,727,142	125,571,414	1,600	126,922,983	64,770,364	43,629,051
Capital/ Saratoga	81,051,689	50,963,791	132,015,481	1,975	203,907,122	99,326,127	73,104,712
Central New York	32,847,654	65,079,322	97,926,976	1,343	127,487,565	64,403,700	45,761,358
Finger Lakes	28,573,166	143,991,331	172,564,497	2,057	184,215,360	99,022,733	68,227,168
Genesee	20,493,280	49,541,974	70,035,254	898	89,454,517	48,957,135	34,369,802
Long Island	135,790,640	446,044,620	581,835,260	7,420	748,786,299	416,451,028	284,885,400
New York City	32,906,669	122,506,241	155,412,910	1,532	188,247,947	118,637,941	84,220,177
Niagara Frontier	77,407,982	237,098,857	314,506,839	4,406	414,413,282	211,044,126	141,971,377
Palisades	48,354,094	69,642,904	117,996,998	1,581	154,267,640	79,502,764	56,196,663
Taconic	45,410,661	174,425,924	219,836,584	2,500	264,683,360	152,341,705	105,513,331
Thousand Islands	20,810,471	121,274,873	142,085,344	1,750	144,487,560	74,841,272	51,072,152
STATE	**543,490,578**	**$1,586,296,978**	**2,129,787,557**	**27,062**	**2,646,873,635**	**1,429,298,894**	**988,951,190**

[1] See, for example, Active Living Research (2010).

ECOSYSTEM SERVICES

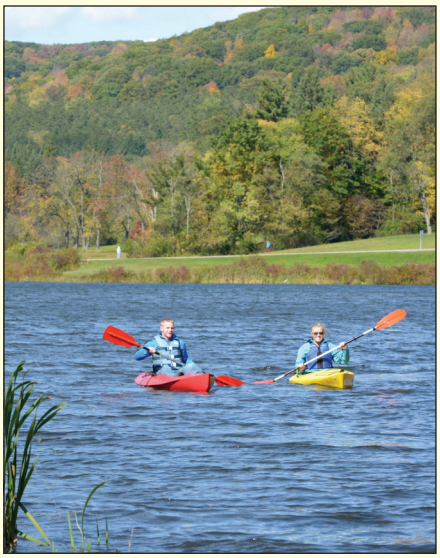
State parks and other green spaces are natural assets, or what is sometimes referred to as natural capital.[5] These assets provide a number of ecosystem services, including water conservation, carbon sequestration, and even temperature reduction in urban areas. Research by the American Planning Association shows that urban parks help manage climate change through means such as providing shade and evapotranspiration to moderate the urban heat island effect, and furthermore that parks are effective in sequestering carbon and other pollutants. Its studies show also that parks can reduce public costs for stormwater management and flood control, as well as protect biodiversity of local plants and animals.

A study of Nassau and Suffolk counties by TPL notes that "trees and shrubs have the ability to remove air pollutants such as nitrogen dioxide, sulfur dioxide, carbon monoxide, ozone, and some particulate matter. Leaves absorb gases, and vegetation plays a role in improving air quality." The TPL study also notes the reduced cost to government of managing stormwater runoff, particularly in urban areas.

In 2015, Washington State published a study of its state park system and found that the ecosystem services provided by parks totaled in the range of $500 million to $1.2 billion per year. This study quantified benefits such as providing habitats for wildlife, aiding with fire protection, providing carbon sequestration, improving the aesthetics of an area, and providing water filtration to sustain local water systems, among other environmental benefits.

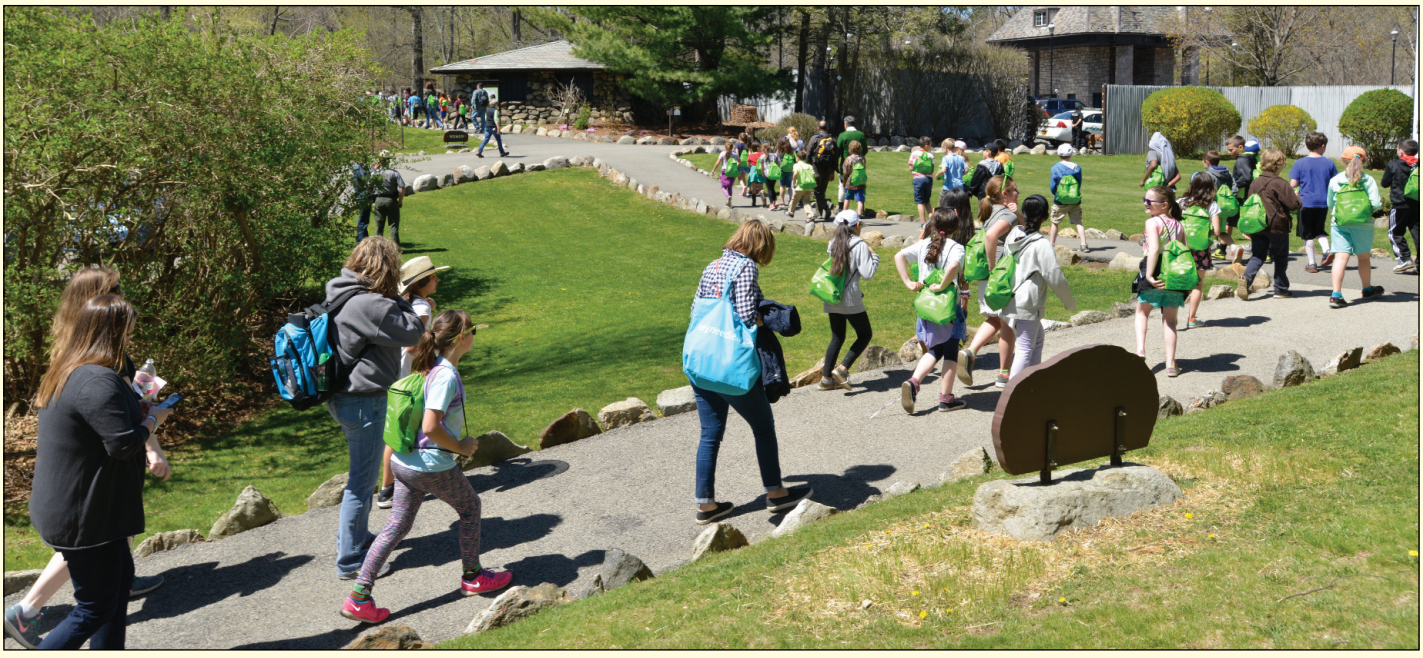
HEALTH, WELLNESS, AND COMMUNITY

Just as the environmental benefits of parks lead us to consider them as natural capital, parks also increase social capital. Parks and green spaces serve an important role in enhancing health and wellness of park users as well as fostering and promoting a sense of community for local residents. The 2015 Washington State study notes that state parks provide social capital by fostering community through volunteerism, recreational experiences, and other forms of social cohesion. The New York State park system is also a cultural asset, as many facilities preserve historic and cultural sites. Furthermore, public parks foster physical benefits by providing



recreation and exercise spaces and improving air quality, and also provide mental health benefits resulting from physical activity as well as stress reduction through experiencing the natural environment.

The U.S. Centers for Disease Control find that parks offer a number of physical benefits, including weight loss, reduced risk of cardiovascular disease and diabetes, improved mental health, and stronger muscles and bones, as a result of walking and biking to and in parks. Other physical benefits include lower air pollution and fewer car crashes as people living



[5] For further discussion of natural and social capital specific to parks see Briceno and Mojica (2016).

near parks walk and bike more and drive less.

A 2009 study of city parks by TPL estimated the monetary benefit of these various health, community, environmental, and other benefits. TPL found that the air pollution benefit of Washington, D.C. parks was valued at $19 million per year; Philadelphia saved about $6 million per year in stormwater management costs because of its city parks; by valuing volunteerism and financial contributions TPL estimates community cohesion resulting from Philadelphia's parks to be about $8.6 million; the health benefits of Sacramento parks are estimated at $20 million; and the value of increased tax collections from the increased prices of properties near parks in D.C. was nearly $7 million. These latter studies are specific to cities and may not be as relevant for assessing the value of New York's rural state parks, however the state does have many parks located in suburban and urban areas as well.

This study does not attempt to calculate the value of these many non-economic benefits of New York State parks. Nonetheless, parks offer a number of valuable services – some that can be monetized, others that cannot. In addition to increasing GDP and employment, which the study quantifies, the New York State park system offers many benefits to users and residents, including a variety of environmental and social benefits.

CONCLUSIONS

New York state receives many economic and non-economic benefits from its park system. Parks and historic sites drive economic benefits such as employment, wages and salaries, output (sales), and state GDP. These economic impacts are the result of both spending by visitors to the parks and state government spending on operations and maintenance of the park system as well as capital improvements to the facilities. This study has estimated the economic benefits of New York State parks and has also cataloged some of the non-economic benefits, such as health benefits and ecosystem services.

Visitor spending was the largest category of spending on parks and related goods and services. In the year from April 1, 2015 to March 31, 2016, the New York State park system received over 67 million visits. Visitors spent about $4 billion in visiting the parks – this includes day visitors who paid for park entrance and parking fees, and who spent money on food and beverages, transportation, and merchandise. It also includes overnight visitors who had expenditures for things like hotel rooms or camping fees and restaurant meals. On average, day visitors spent $44.18 per visit and overnight visitors spent in the range of $93.48 to $139.79, depending on the park region and cost of living in the area.

The economic significance of visitor spending, which includes both local and non-local users and is a full measure of the effect on the economy, resulted in close to 45,000 jobs statewide, over $4 billion in sales, and contributed about $2.4 billion to New York's GDP. These estimates were derived using an input-output model, in this case IMPLAN v3 with 2014 data specific to New York State.

While economic significance captures the full effect of the park, the study isolates the economic impacts, which are the net effect of non-local visitors. This is a subset of the economic significance and represents economic activity that arguably would not occur in the absence of the park. Using a radius of 50 miles to separate local from non-local visitors, the study found that non-local visits accounted for $1.6 billion in sales, supported over 18,000 jobs throughout the state, and contributed nearly $1 billion to state GDP.

In addition to visitor spending, economic impacts are driven by state government spending on operations and maintenance as well as capital improvements of the park system. In Fiscal Year 15/16, state spending totaled about $543 million, of which about $353 million was for O&M and $190 million for capital improvements. These expenditures resulted in about 9,000 jobs, over $1 billion in sales, and contributed nearly $500 million to state GDP.

Combining both visitor and state government spending, the study finds that the economic significance of the New York State park system supports 54,000 jobs, $5 billion in sales, and $2.9 billion in state GDP. Of this, the economic impacts – which exclude local visitors but include non-local visitors and state government expenditures – total 27,000 jobs, $2.6 billion in sales, and $1.5 billion in state GDP.

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APPENDICES

APPENDIX A: THE INPUT-OUTPUT MODEL AND EMPLOYMENT MULTIPLIERS

1. The Regional Input-Output Models

National input-output tables (i.e. I-O tables) are compiled by the Bureau of Economic Analysis (BEA). Every five years the Census Department gathers data (in its "Economic Census") and the BEA uses this data along with information from other Census programs—including annual surveys that cover selected industries, such as manufacturing and services. The I-O tables also incorporate data collected and tabulated by other Federal agencies—including the U.S. Departments of Agriculture, Education, and Energy—and data from a number of private organizations. However, the input-output matrices made available through the BEA are suited for national-level analysis only.

To calculate the detailed employment impact assessments contained in this report, we used the social accounting and impact assessment software package, IMPLAN Pro (Version 3.0). IMPLAN is calibrated to the BEA I-O tables and includes a highly detailed level of industrial disaggregation – over 500 different sectors. Our input-output model uses 2014 New York State data available for purchase through the Minnesota IMPLAN Group (MIG).

2. Using the Input-Output Model to Examine Economic Multipliers

To study the effects on employment, output/sales, and employee compensation with the regional I-O models, we use the IMPLAN software to generate the relevant multipliers. Employment multipliers are computed based on an employment-output ratio. The assumption is that employment/output ratios remain fixed in the short-run. Therefore, output multipliers – derived from the Leontief inverse matrix – can be converted into employment multipliers by using the employment-output ratios. Similarly, output multipliers can also be converted into multipliers for employee compensation using fixed coefficients. The IMPLAN software performs these calculations automatically.

The I-O model can also be used to calculate induced effects. Induced effects refer to the additional employment, output, and income that is produced when the additional employee compensation generated by an initial demand stimulus – as captured by the direct and indirect effects – is spent. The magnitude of the induced effects depends on how the additional employment income translates into household expenditures and the size of the multiplier effects associated with the increase in household spending. The assumption is that a fixed proportion of the compensation employees receive is spent on household purchases. When total compensation goes up, household consumption (a category of final demand) increases proportionately. However, the I-O model of induced effects, computed by endogenizing the household sector, tends to generate implausibly large multiplier effects. Therefore, we do not use the direct I-O estimates of induced effects in our calculations but instead use a different methodology. The 2009 New York State Parks study by the Political Economy Research Institute describes in detail the estimating methodology for the induced effects. For this updated study, we use the ratios of induced/(direct+indirect) multipliers found in the 2009 study and apply those ratios to the direct and indirect effects calculated with the updated (2014) data. These ratios are calculated separately for each county and type of impact.

3. Categories of spending and I-O multipliers

To perform the kind of economic impact analysis featured in this report we needed to match the expenditure categories with the disaggregated sectors in order to calculate the various multipliers. These multipliers are then used to estimate the economic impacts of increasing the relevant category of expenditure. For this study, we use the same industry categories and weights that were used in the 2009 study, which are as follows:

- Direct operating expenditures on parks and historic sites: Parks, historic sites, museums, and zoos
- Capital expenditures on park infrastructure: Non-residential construction
- Visitor expenditures on groceries: Food retail establishments
- Visitor expenditures on restaurants: Food service and drinking establishments
- Visitor expenditures on automobiles: 90% gas station establishments, 5% automobile repair services, 5% automobile rental services.
- Visitor expenditures on recreational equipment: sporting goods retail establishments
- Visitor expenditures on lodging: 50% hotels and motels, 50% other lodging services
- Visitor expenditures on other retail: general merchandising

APPENDIX B: MORE DETAILS ON DATA

Estimating average expenditure per visitor

The New York State Office of Parks, Recreation, and Historic Preservation tracks numbers of visitors to each park, but not the spending by each visitor. To estimate spending for this report, we relied on the findings of a number of other state park studies that surveyed or otherwise estimated spending per visit. For local visitors, we used the spending amounts for day visits, and inflated each of these to 2016 dollars to make the spending consistent with the visitation data we have for NY.

TABLE 9

Visitor Spending, Day Users

STATE	AVERAGE EXPENDITURE PER VISIT, DAY USE	YEAR OF DATA	INFLATION FACTOR	UPDATED TO YEAR OF NYS DATA (2016) USING BLS'S CPI INFLATION CALCULATOR
Washington State	22.39	2015	1.02	22.84
Wisconsin	71.43	2013	1.03	73.57
Connecticut	64.04	2010	1.11	71.08
Missouri	43.00	2011	1.07	46.01
Minnesota	25.38	2012	1.05	26.65
Pennsylvania	22.44	2010	1.11	24.91
Average expenditure per day visit	**44.18**			

For non-local users, we derive the spending amount based on a 2010 study by The Trust for Public Land, entitled "The Economic Benefits and Fiscal Impact of Parks and Open Space in Nassau and Suffolk Counties, New York." In this study, day visitors spent an average of $98 per day, while overnight visitors spent an average of $126 per day. Using a weighted average of day and overnight visitor spending, and then adjusting for inflation, we generate an average visitor expenditure of $133.72 per day. However, since Long Island has a higher cost of living than many other NY regions (in fact, all except the New York City region), we adjust this average spending by the cost of living in each NY park region. This yields a range of $93.48 to $139.79, depending on the park region (with Genessee, Finger Lakes, and Allegany on the low end; Palisades, Long Island, New York on the higher end).

Finally, to calculate total non-local spending, we multiply the number of park visits in each region by the percentage of non-local visitation to each region. This yields an estimate of non-local attendance, which we multiply by the non-local spending per visit of $93.48 to $139.79 in Table 9.

TABLE 10

Visitation to NYS Parks by Distance

PARK REGION	50+ MILES	SAMPLE SIZE	% NON-LOCAL
Allegany	22	36	61%
Central	14	59	24%
Finger Lakes	36	95	38%
Genesee	18	52	35%
Long Island	12	78	15%
NYC	1	8	13%
Niagara	8	42	19%
Palisades	4	37	11%
Saratoga	7	64	11%
Taconic	12	35	34%
1000 Islands	47	69	68%
Statewide	**181**	**586**	**31%**

TABLE 11				
Attendance and Spending by Non-Local Visitors				
PARK REGION	TOTAL ATTENDANCE	% NON-LOCAL	ATTENDANCE BY NON-LOCALS	TOTAL SPENDING BY NON-LOCALS
Allegany	1,768,799	0.61	1,080,933	105,727,142
Capital/Saratoga	4,313,767	0.11	471,818	50,963,791
Central New York	2,763,212	0.24	655,677	65,079,322
Finger Lakes	3,990,865	0.38	1,512,328	143,991,331
Genesee	1,531,055	0.35	529,981	49,541,974
Long Island	21,681,798	0.15	3,335,661	446,044,620
New York City	7,011,121	0.13	876,390	122,506,241
Niagara Frontier	12,302,459	0.19	2,343,326	237,098,857
Palisades	5,493,855	0.11	593,930	69,642,904
Taconic	4,583,259	0.34	1,571,403	174,425,924
Thousand Islands	1,751,314	0.68	1,192,924	121,274,873
STATE	**67,191,504**	**21%**	**14,164,371**	**1,586,296,978**

ALLOCATING VISITOR SPENDING TO I-O SECTORS

Once we have estimated total spending by visitors, we need to assign the spending to various categories in order to estimate the impacts in the I-O model. For this study, we use the visitor spending profile that was developed in the 2009 New York State Parks report, reproduced in Table 12.

Shares of non-local visitor expenditures by category, used to estimate economic impacts.

TABLE 12	
Spending Categories used in I-O Model	
Category	Total Spending
Groceries and retail food shops	12%
Transportation and automobile	20%
Eating out (restaurants and bars)	22%
General shopping (non-food)	12%
Recreational equipment	9%
Lodging (all types)	25%

APPENDIX C: DETAILED TABLES

Economic Significance Of Visitor Spending – Detailed Tables

Visitor Spending - Employment effects				
PARK REGION	**DIRECT**	**INDIRECT**	**INDUCED**	**TOTAL**
Allegany	1,429	109	133	1,671
Capital/Saratoga	2,074	221	286	2,581
Central New York	1,534	174	197	1,905
Finger Lakes	2,383	203	261	2,847
Genesee	891	103	122	1,116
Long Island	11,183	1,382	1,549	14,114
New York City	2,951	275	382	3,609
Niagara Frontier	7,041	812	962	8,816
Palisades	2,575	257	322	3,154
Taconic	2,644	277	321	3,242
Thousand Islands	1,459	117	134	1,711
STATE	**36,166**	**3,931**	**4,669**	**44,765**

Visitor Spending - Output effects

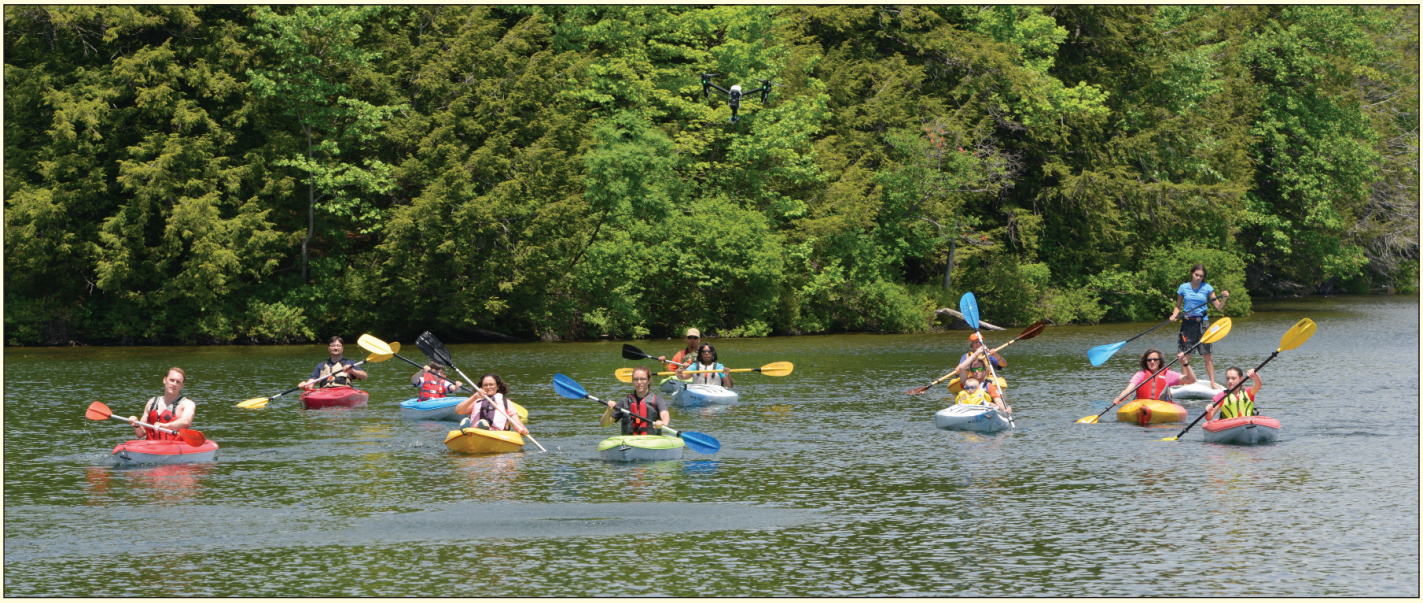
PARK REGION	**DIRECT**	**INDIRECT**	**INDUCED**	**TOTAL**
Allegany	87,125,403	13,100,457	24,129,950	124,355,810
Capital/Saratoga	141,258,642	35,720,612	53,455,866	230,435,120
Central New York	101,250,525	24,565,776	36,869,014	162,685,315
Finger Lakes	162,252,004	27,896,577	52,198,094	242,346,675
Genesee	60,018,298	15,638,288	22,921,960	98,578,546
Long Island	804,274,981	205,790,055	304,017,286	1,314,082,322
New York City	251,884,320	59,317,107	94,115,553	405,316,980
Niagara Frontier	433,374,992	123,730,121	177,400,165	734,505,278
Palisades	183,130,914	36,747,204	63,218,689	283,096,806
Taconic	196,813,319	49,509,424	73,213,396	319,536,139
Thousand Islands	93,416,200.28	14,516,588	27,391,630	135,324,418
STATE	**2,514,799,598**	**606,532,207**	**928,931,603**	**4,050,263,408**

Visitor Spending - Value-added effects

PARK REGION	DIRECT	INDIRECT	INDUCED	TOTAL
Allegany	52,020,708	6,378,724	8,096,636	66,496,068
Capital/Saratoga	90,306,310	19,253,935	22,070,942	131,631,188
Central New York	63,382,617	12,683,325	15,022,273	91,088,214
Finger Lakes	103,792,715	14,768,433	19,092,428	137,653,576
Genesee	38,351,832	9,065,333	9,478,829	56,895,994
Long Island	530,875,014	126,394,146	134,646,501	791,915,661
New York City	179,746,137	39,867,288	45,107,456	264,720,881
Niagara Frontier	262,750,811	69,282,855	68,924,671	400,958,338
Palisades	122,174,346	19,960,466	27,294,099	169,428,911
Taconic	132,150,786	30,657,974	30,981,389	193,790,148
Thousand Islands	57,422,745	7,154,967	9,159,364	73,737,076
STATE	**1,632,974,022**	**355,467,446**	**389,874,587**	**2,378,316,056**

Visitor Spending - Labor income effects

PARK REGION	DIRECT	INDIRECT	INDUCED	TOTAL
Allegany	33,885,383	3,806,436	4,224,337	41,916,157
Capital/Saratoga	61,381,932	11,494,188	12,542,559	85,418,680
Central New York	42,902,515	7,514,896	8,585,086	59,002,498
Finger Lakes	70,733,195	9,395,605	10,764,153	90,892,952
Genesee	25,919,383	5,608,296	5,427,652	36,955,331
Long Island	368,161,650	76,252,139	80,599,083	525,012,872
New York City	129,624,663	23,455,790	27,643,080	180,723,534
Niagara Frontier	169,643,130	42,569,044	38,241,962	250,454,136
Palisades	83,641,867	11,103,898	14,952,586	109,698,351
Taconic	91,991,755	18,169,157	17,673,443	127,834,355
Thousand Islands	38,326,926	4,131,480	5,176,324	47,634,730
STATE	**1,116,212,401**	**213,500,931**	**225,830,266**	**1,555,543,597**



ECONOMIC IMPACTS – DETAILED TABLES

Visitor Spending - Employment IMPACTS

PARK REGION	DIRECT	INDIRECT	INDUCED	TOTAL
Allegany	1,110	85	103	1,298
Capital/Saratoga	479	51	66	596
Central New York	631	72	81	784
Finger Lakes	1,354	115	148	1,617
Genesee	471	54	64	589
Long Island	3,970	491	550	5,010
New York City	919	86	119	1,124
Niagara Frontier	2,466	285	337	3,087
Palisades	627	63	78	768
Taconic	1,500	157	182	1,839
Thousand Islands	1,213	97	112	1,421
STATE	**14,739**	**1,554**	**1,841**	**18,134**

Visitor Spending - Output IMPACTS

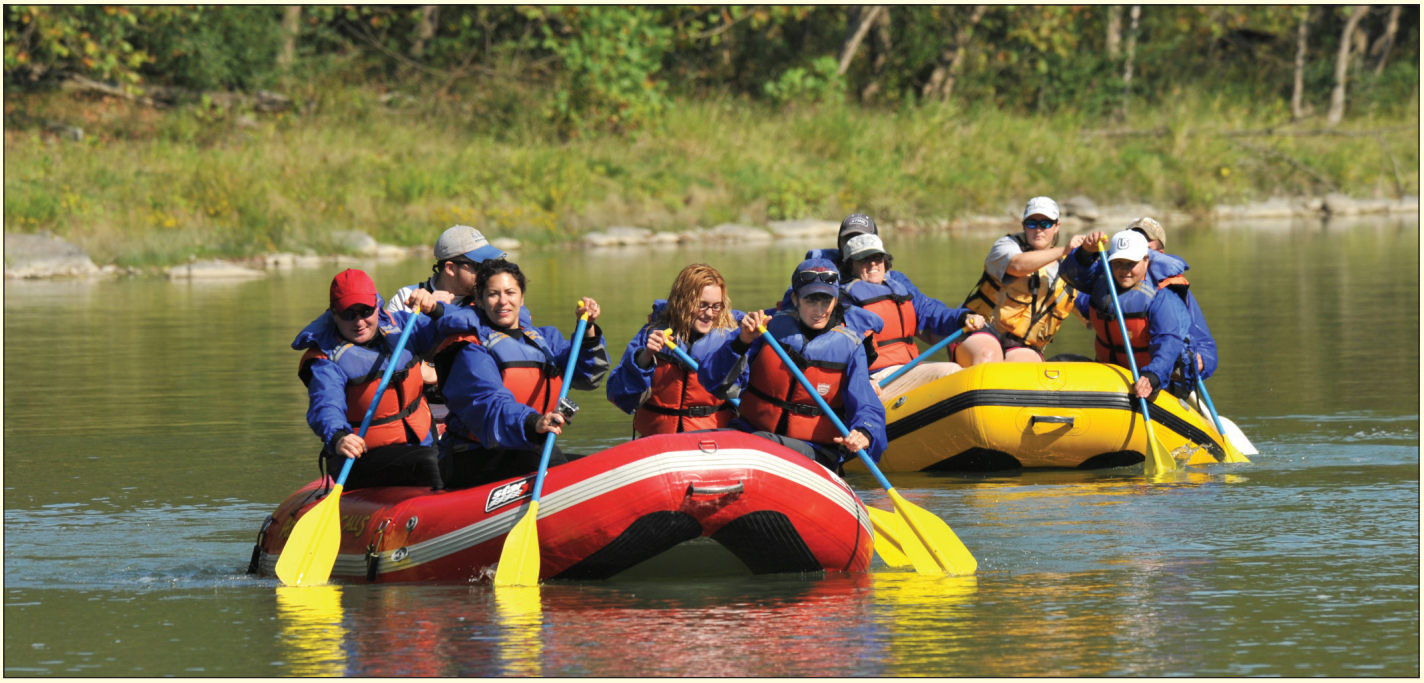
PARK REGION	DIRECT	INDIRECT	INDUCED	TOTAL
Allegany	67,674,887	10,175,815	18,743,003	96,593,704
Capital/Saratoga	32,621,413	8,249,101	12,344,773	53,215,288
Central New York	41,656,623	10,106,884	15,168,698	66,932,204
Finger Lakes	92,167,411	15,846,678	29,651,179	137,665,268
Genesee	31,711,322	8,262,660	12,111,068	52,085,049
Long Island	285,508,701	73,053,188	107,922,766	466,484,654
New York City	78,415,020	18,466,223	29,299,454	126,180,697
Niagara Frontier	151,764,608	43,329,342	62,124,181	257,218,131
Palisades	44,577,726	8,945,004	15,388,693	68,911,423
Taconic	111,648,289	28,085,713	41,532,506	181,266,509
Thousand Islands	77,626,833	12,062,969	22,761,849	112,451,651
STATE	**1,015,372,833**	**236,583,577**	**367,048,169**	**1,619,004,579**

Visitor Spending - Value-added IMPACTS

PARK REGION	DIRECT	INDIRECT	INDUCED	TOTAL
Allegany	40,407,222	4,954,691	6,289,083	51,650,997
Capital/Saratoga	20,854,791	4,446,387	5,096,929	30,398,107
Central New York	26,076,959	5,218,190	6,180,483	37,475,632
Finger Lakes	58,959,554	8,389,223	10,845,473	78,194,250
Genesee	20,263,609	4,789,768	5,008,242	30,061,619
Long Island	188,454,744	44,868,520	47,798,015	281,121,279
New York City	55,957,421	12,411,230	14,042,565	82,411,216
Niagara Frontier	92,013,325	24,262,326	24,136,893	140,412,543
Palisades	29,739,679	4,858,776	6,643,930	41,242,385
Taconic	74,966,518	17,391,660	17,575,127	109,933,305
Thousand Islands	47,717,054	5,945,622	7,611,232	61,273,908
STATE	**655,410,875**	**137,536,393**	**151,227,972**	**944,175,240**

Visitor Spending - Labor income IMPACTS

PARK REGION	DIRECT	INDIRECT	INDUCED	TOTAL
Allegany	26,320,561	2,956,660	3,281,265	32,558,485
Capital/Saratoga	14,175,171	2,654,398	2,896,503	19,726,071
Central New York	17,651,009	3,091,788	3,532,087	24,274,885
Finger Lakes	40,180,061	5,337,183	6,114,588	51,631,831
Genesee	13,694,789	2,963,205	2,867,759	19,525,752
Long Island	130,693,304	27,068,664	28,611,781	186,373,748
New York City	40,353,923	7,302,107	8,605,667	56,261,698
Niagara Frontier	59,407,727	14,907,354	13,392,043	87,707,123
Palisades	20,360,103	2,702,911	3,639,758	26,702,772
Taconic	52,185,097	10,307,002	10,025,793	72,517,892
Thousand Islands	31,848,843	3,433,170	4,301,413	39,583,426
STATE	**446,870,587**	**82,724,441**	**87,268,657**	**616,863,685**



ECONOMIC IMPACTS OF STATE GOVERNMENT EXPENDITURES

Operating, maintenance, and capital expenditures - employment impacts

PARK REGION	DIRECT	INDIRECT	INDUCED	TOTAL
Allegany	231	39	32	302
Capital/Saratoga	993	233	152	1,379
Central New York	391	88	80	559
Finger Lakes	328	57	55	440
Genesee	215	52	41	308
Long Island	1,631	466	313	2,409
New York City	288	54	67	409
Niagara Frontier	890	215	214	1,319
Palisades	585	134	94	814
Taconic	476	106	79	661
Thousand Islands	257	41	30	328
STATE	**6,286**	**1,485**	**1,157**	**8,928**

Operating, maintenance, and capital expenditures - output impacts

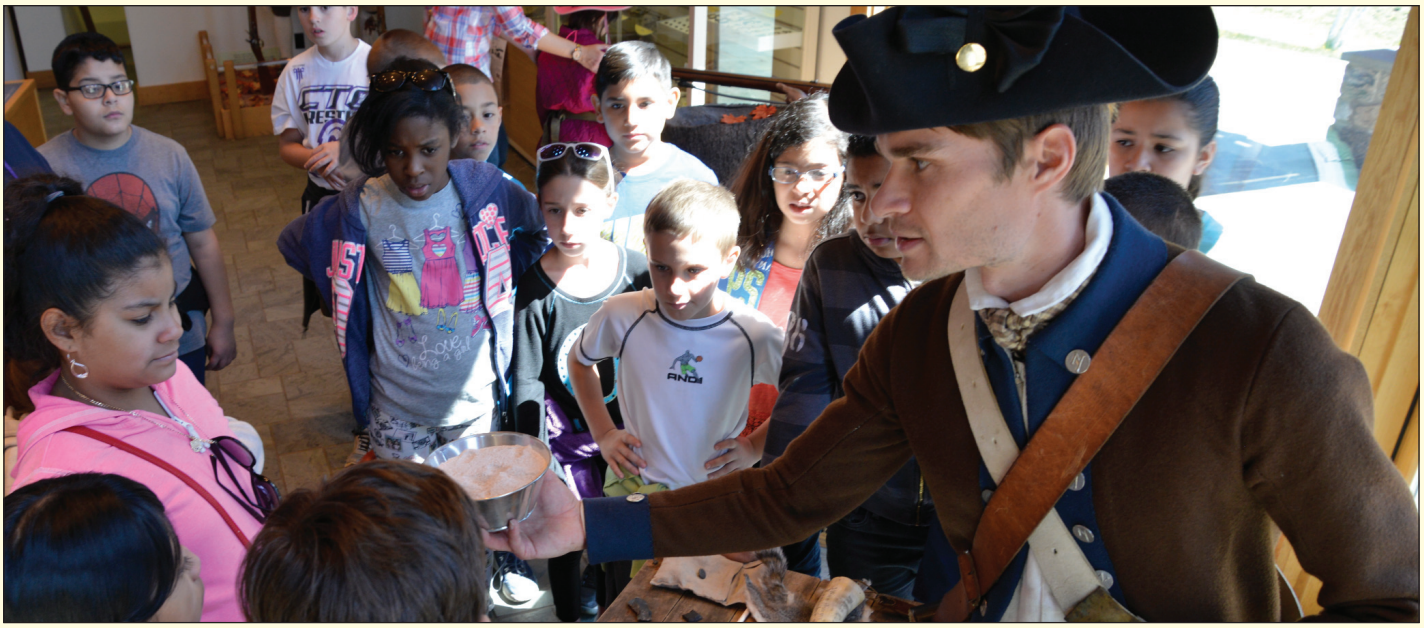
PARK REGION	DIRECT	INDIRECT	INDUCED	TOTAL
Allegany	19,844,272	4,137,653	6,347,355	30,329,280
Capital/Saratoga	81,051,689	35,387,389	34,252,756	150,691,834
Central New York	32,847,654	12,499,222	15,208,484	60,555,361
Finger Lakes	28,573,166	6,958,027	11,018,900	46,550,093
Genesee	20,493,280	7,549,889	9,326,299	37,369,467
Long Island	135,790,640	72,406,948	74,104,056	282,301,644
New York City	32,906,669	11,904,108	17,256,473	62,067,250
Niagara Frontier	77,407,982	32,369,960	47,417,210	157,195,151
Palisades	48,354,094	17,845,882	19,156,241	85,356,216
Taconic	45,410,661	17,630,748	20,375,442	83,416,850
Thousand Islands	20,810,471	4,973,901	6,251,537	32,035,909
STATE	**543,490,578**	**223,663,727**	**260,714,751**	**1,027,869,056**

Operating, maintenance, and capital expenditures – value-added impacts

PARK REGION	DIRECT	INDIRECT	INDUCED	TOTAL
Allegany	8,954,036	2,094,026	2,071,305	13,119,367
Capital/Saratoga	37,028,014	19,472,415	12,427,591	68,928,020
Central New York	14,684,172	6,627,810	5,616,085	26,928,067
Finger Lakes	13,445,399	3,692,007	3,691,077	20,828,483
Genesee	10,462,442	4,493,802	3,939,273	18,895,517
Long Island	62,222,990	44,724,659	28,382,100	135,329,749
New York City	19,753,785	8,289,488	8,183,452	36,226,725
Niagara Frontier	36,489,236	18,334,761	15,807,585	70,631,582
Palisades	21,544,511	9,958,865	6,757,004	38,260,379
Taconic	23,138,264	11,223,210	8,046,926	42,408,401
Thousand Islands	9,157,250	2,494,534	1,915,580	13,567,364
STATE	**256,880,099**	**131,405,577**	**96,837,978**	**485,123,654**

Operating, maintenance, and capital expenditures – labor income impacts

PARK REGION	DIRECT	INDIRECT	INDUCED	TOTAL
Allegany	8,713,664	1,241,202	1,115,699	11,070,565
Capital/Saratoga	35,117,017	10,423,704	7,837,920	53,378,640
Central New York	14,488,705	3,871,405	3,126,363	21,486,473
Finger Lakes	12,407,216	2,222,790	1,965,331	16,595,337
Genesee	10,103,968	2,559,927	2,180,154	14,844,050
Long Island	59,481,960	23,906,350	15,123,341	98,511,651
New York City	19,233,485	4,448,526	4,276,468	27,958,479
Niagara Frontier	35,690,487	10,288,132	8,285,635	54,264,254
Palisades	20,246,724	5,226,961	4,020,206	29,493,891
Taconic	22,298,205	6,135,526	4,561,708	32,995,439
Thousand Islands	8,867,948	1,372,332	1,248,445	11,488,726
STATE	**246,649,379**	**71,696,856**	**53,741,271**	**372,087,505**



This report was prepared for Parks & Trails New York by the Political Economy Research Institute.

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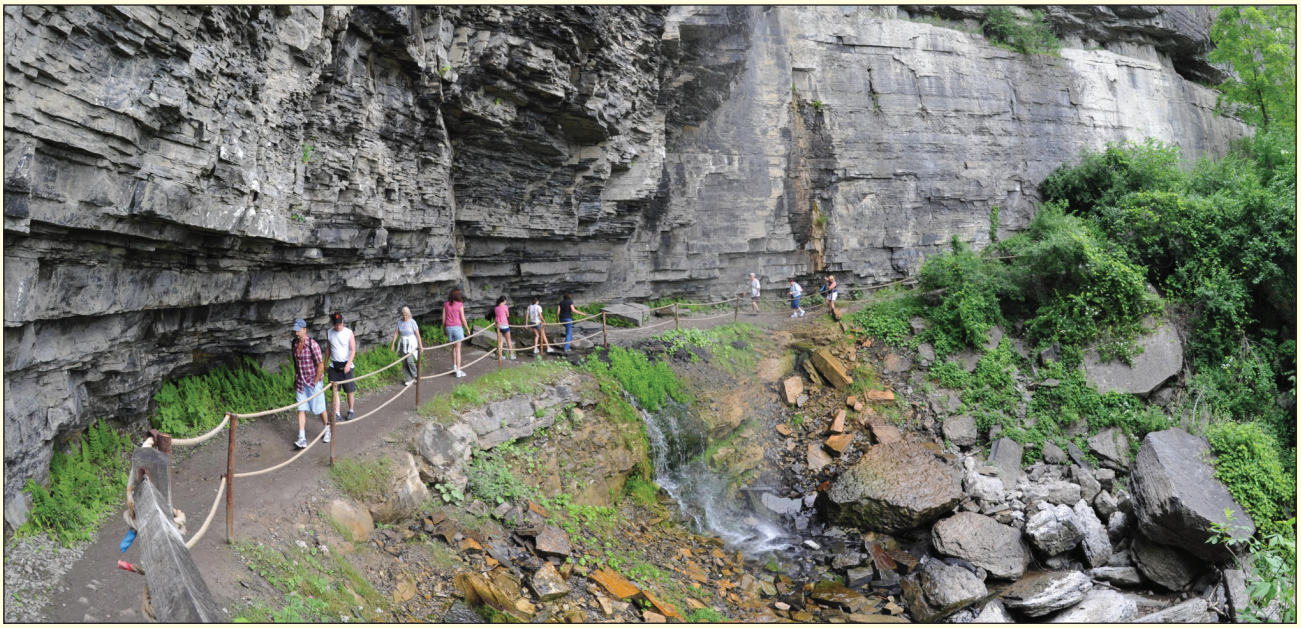
The Political Economy Research Institute (PERI) at the University of Massachusetts promotes human and ecological well-being through our original research. Our approach is to translate what we learn into workable policy proposals that are capable of improving life on our planet today and in the future.

Principal report researcher and author: Heidi Garrett-Peltier

August, 2017



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