ECONOMIC IMPACT OF LOCAL PARKS

AN EXAMINATION OF THE ECONOMIC IMPACTS OF OPERATIONS AND CAPITAL SPENDING BY LOCAL PARK AND RECREATION AGENCIES ON THE UNITED STATES ECONOMY

FULL REPORT

NRPA National Recreation and Park Association

Because everyone deserves a great park

Center for Regional Analysis

The Center for Regional Analysis, housed in the School of Policy, Government, and International Affairs at George Mason University, is the premier university-based regional economic research center in the Washington, DC Metropolitan Area. The Center provides regionally relevant, globally informed research for businesses, governments and non-profit agencies.

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Table of Contents

Table of Tables

EXECUTIVE SUMMARY

The following summarizes the findings of the Center for Regional Analysis' research on the economic impact of local public park and recreation agencies' spending in the United States. This research, conducted in direct collaboration with the research staff of the National Recreation and Park Association (NRPA), examines the role that local parks play in 21st Century local economic development, and adds to the growing body of evidence showing that the benefits of parks extend well beyond their role as a public amenity and enhancing the quality of life in their communities. In this research report, we report on our analysis of the economic and fiscal impacts of local park system spending on state and national economies.

Key characteristics of the research include:

- The study focused on the direct, indirect (business transactions of park agency vendors) and induced (employees spending their earnings) effects that local park and recreation agencies' spending has on economic activity. The research does *not* measure the effects of visitor spending nor the benefits local park and recreation agencies generate for the environment, health/wellness and property values.
- Data for this analysis are from the U.S. Census Bureau's 2015 *Annual Survey of Public Employment & Payroll*, previous research findings, and spending data from more than 100 local park and recreation agencies accessed from park system budget data posted online.
- Data analysis employed economic input-output multipliers provided by IMPLAN, Inc. The results provide estimates of economic activity (value of transactions), value added (equivalent to gross domestic/regional product), labor income (salaries, wages and benefits), and employment (headcount jobs).
- In line with previous studies, we have separated the economic impacts of recurring operations spending and capital expenditures.

Key Findings from the National Study

In 2015, local public park and recreation agencies' operations and capital spending generated more than $154 billion in economic activity and supported over 1.1 million jobs in 2015.

- Local park and recreation agencies *directly* provided almost 371,000 jobs in the U.S. during 2015 and had operations spending of nearly $31 billion.
- Park and recreation agencies' *operations spending* generated nearly $91 billion in total economic activity, boosted real gross domestic product (GDP) by $48.7 billion and supported 723,000 total jobs that paid $33.8 billion in salaries, wages and benefits.

- Local park and recreation agencies spent an estimated $23.2 billion on *capital* programs during 2015, leading to $63.6 billion in economic activity, a contribution of $32.3 billion to GDP, $21.3 billion in labor income and supporting almost 378,000 jobs.
- In 2015, the nation's local public park and recreation agencies had a total outlay of over $54 billion, resulting in $154.5 billion in economic activity, $81 billion in contributions to GDP, and supported over 1.1 million jobs that generated labor income of more than $55 billion.

Economic Impacts of Local Park and Recreation Agency Spending on the U.S. Economy—2015

	Operations Spending Impacts	Capital Spending Impacts	Total Impact of Local Park and Recreation Agencies' Spending
Economic Activity (transactions)	$90,898,568,000	$63,555,471,000	$154,454,039,000
Value Added (GDP)	$48,737,503,000	$32,314,247,000	$81,051,750,000
Labor Income (salaries, wages, benefits)	$33,812,467,000	$21,270,695,000	$55,083,162,000
Employment (jobs)	723,046	377,983	1,101,029

Sources: IMPLAN, Center for Regional Analysis

Introduction

This report presents an analysis of the economic impacts of spending by local park and recreation agencies in the United States. The research adds to the growing body of evidence showing that the impacts of parks extend well beyond their role as a public amenity that enhances the quality of life in communities across the United States. Indeed, the research results reveal that expenditures made by park and recreation agencies for operations and capital projects have significant effects on both the national and state economies.

This study, a follow-up to a 2015 report also commissioned by NRPA and conducted by the Center for Regional Analysis, helps fills a gap in understanding the economic impacts of local park and recreation agency spending in the United States. It presents two levels of analysis. The first summarizes the economic benefits of operations and capital spending by local park and recreation agencies at the national level. The second provides state-by-state estimates of economic impacts for all 50 states and the District of Columbia.

The current research is a part of a broader study series by the Center for Regional Analysis that is investigating the positive economic impact local park and recreation agencies have on their communities. A second report, scheduled for publication in the spring of 2018, will review the critical role that local parks can play in 21st Century local economic development. Quality of life improvements attributed to parks have been shown to benefit local and regional economic development. A recent survey in Area Development notes that three-quarters of corporate executives rate quality-of-life features as an important factor when choosing a location for a headquarters, factory or other company facility.

Methodology

This study builds on the earlier 2015 research completed by the Center for Regional Analysis with one notable exception. Our previous analysis used economic multipliers derived from the Regional Impact Modeling System (RIMS II) developed by the Bureau of Economic Analysis of the U.S. Department of Commerce. The current study uses the IMPLAN economic input-output model developed by MIG, Inc. IMPLAN is the most widely used, privately developed model in the United States. The most notable difference between the IMPLAN and RIMS II systems is the modeling approach used to estimate what portion of industry spending stays within the specified geography. MIG's development of a model based on trade flows is considered by many academics and practitioners as being a more accurate methodology. Because of the change in the model used, and even though RIMS II and IMPLAN often produce similar results, the findings of this current study are not directly comparable with the previous research.

Similar to the 2015 study, the current estimates of the economic impacts of local public park and recreation agencies include those related to on-going operations spending and agency capital spending. We do not include economic activity associated with tourism spending generated by local park systems, which can be substantial but is not captured in a consistent or accessible manner on a national scale. The analysis also foregoes estimates of other types of impacts that local park systems provide for their host communities, such as the value of enhanced amenities and quality of life, impacts on residential and commercial property values, and the value of health effects of residents using park amenities.

Economic input-output models provide estimates of direct, indirect, and induced effects stimulated by spending in a specified geography. In this study that includes state and national level estimates. Direct effects represent those economic impacts from spending by local park and recreation agencies. This includes personnel costs (salaries and benefits), equipment (non-capital), utilities, and goods and services. Indirect effects represent the impacts from spending associated with the park systems' vendors: for example, a contractor that maintains HVAC systems at a rec center or repairs pumps at an aquatic center. Indirect effects also capture the economic impacts that flow through agency vendors: for example, an HVAC contractor hiring a bookkeeping service and renting office space. As noted previously, economic input-output models adjust the impact estimates to exclude spending that likely leaves the designated study area, such as the costs of fuel refined from imported oil used for park vehicles.

The IMPLAN model provides estimates of the impacts of park system spending on total output, value added, labor income and jobs. Output is a measure of the value of transactions expressed in producer prices. Value added is equivalent to real gross domestic product or gross regional product. Job count estimates are expressed as headcount jobs, and labor income includes salaries, wages and benefits. The databases used to build the economic input-output model account for full- versus part-time employment in the relevant sectors of the economy.

National Analysis

Operations spending estimates for local park and recreation agencies are derived from the U.S. Census Bureau's 2015 *Annual Survey of Public Employment & Payroll* and the IMPLAN economic input-output model. This survey data presents estimates of the number of employees (headcount) employed by local governments in parks and recreation departments. Using the number of employees, the IMPLAN model provides an estimate of total direct output, which is treated as operations spending for the park systems. The relationship between total spending and employment is based on national averages for entities operating in the parks and recreation industry and closely related activities.

Based on the 2015 Census Bureau survey, local park and recreation agencies provided over 370,000 direct jobs, which equates to $31.2 billion in operations spending. This level of spending

generated almost $92 billion in total economic activity, boosted real gross domestic product by $48.7 billion and supported 723,000 jobs paying $33.8 billion in salaries, wages and benefits across the nation (see Table 1).

Capital spending estimates are derived from information gathered in our earlier 2015 analysis of 2013 data. That included data from budget records for more than 400 park systems entered into NRPA Park Metrics, and data gathered directly from agency websites. These data formed a sample from which we calculated a ratio of operations to capital expenditures that was then used to estimate total annual capital spending by local park and recreation agencies across the nation. To update our analysis for 2015 capital expenditures, the research team reviewed park system budgets for more than 100 entities allowing us to re-examine the operations-to-capital spending ratio. The ratios were very similar to those in the previous analysis. Using this spending ratio method, total park system capital spending in 2015 is estimated at $23.3 billion.

In a second approach, we used the 2013 data and applied an inflation adjustment based on GDP deflators for equipment. The result was an estimate of $23.9 billion in capital spending for 2015. Finally, we compared U.S. Census data on overall park spending between 2013 and 2015 to validate our capital spending estimates. For purposes of calculating the economic impacts of park system capital spending, we chose the slightly more conservative $23.3 billion estimate.

This estimate of local park and recreation agency capital spending led to an additional $63.5 billion in economic activity, an additional contribution of $32.3 billion to gross domestic product, $21.3 billion in labor income and almost 378,000 jobs.

In total, for 2015 the nation's local public park and recreation agencies spent about $54.4 billion in operations and capital spending, creating $154 billion in economic activity, $81 billion in gross domestic product, and over 1.1 million jobs that boosted labor income by $55 billion.

Table 1
Impact of Local Park and Recreation Agency Spending
on the U.S. Economy—2015

Description	Operations Spending Impacts	Capital Spending Impacts	Total Impact of Local Park and Recreation Agencies' Spending
Economic Activity (transactions)	$ 90,898,568,000	$ 63,555,471,000	$ 154,454,039,000
Value Added (GDP)	$ 48,737,503,000	$ 32,314,247,000	$ 81,051,750,000
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Employment (jobs)	723,046	377,983	1,101,029

Source: U.S. Census Bureau, IMPLAN, Center for Regional Analysis

State-Level Analysis

This component of the research project examines the economic impact of local park and recreation spending in all 50 states and the District of Columbia. As with the national analysis, this part of the study utilized employment data from the U.S. Census Bureau for local park systems as a proxy measure of operations spending. Estimates of total economic impacts, including direct, indirect and induced effects come from Regional Impact Modeling System (RIMS-II) multipliers developed by the Bureau of Economic Analysis and packaged by IMPLAN, Inc.

State-level estimates of capital spending by local park and recreation agencies are based on the national totals as described above. Total national capital expenditures are allocated by state and the District of Columbia, based on data from the U.S. Census Bureau's Survey of Local Government for 2015. The findings of the state level analysis are presented in Table 2.

Note that the sum of the state-level impacts does not equal the national level economic impact estimates presented in the previous section. This is not an error. For any given state, not all of effects of spending by local park and recreation agencies remain in the host state. For example, if the fertilizer used on sports fields at an Oklahoma City park was produced by a manufacturer in Arkansas, the value of that product production would not count as an impact on the Oklahoma economy. In addition, since the spending for this fertilizer originated outside of Arkansas, this fertilizer sale would not be captured in the Arkansas state-level impacts. Therefore, the economic activity related to the manufacture of this fertilizer is "lost" in our state-level analysis. Since virtually all of this economic activity occurred within the United States, this "lost" activity *is* captured in the national level analysis.

There is substantial variance in the economic impacts of local park and recreation agency spending across states. This reflects, among other things, population differences. Nonetheless, local park and recreation agency spending is a substantial contributor of jobs and economic activity across the nation, with state impacts ranging up to billions of dollars in economic activity supported each year.

Table 2
Impact of Local Park and Recreation Agency Spending on State Economies—2015

State	Economic Activity (Transactions)	Labor Income	Employment (jobs)
Alabama	$ 945,406,931	$ 331,589,252	9,551
Alaska	$ 322,248,688	$ 134,577,563	2,406
Arizona	$ 1,721,532,429	$ 659,739,908	15,517
Arkansas	$ 523,552,478	$ 175,272,034	4,571
California	$15,953,170,645	$ 6,480,599,554	118,677
Colorado	$ 4,093,983,222	$ 1,553,579,534	33,582
Connecticut	$ 734,509,489	$ 303,737,860	6,150
District of Columbia	$ 96,276,516	$ 36,640,851	813
Delaware	$ 424,230,300	$ 190,491,938	2,878
Florida	$ 7,223,289,574	$ 2,487,029,967	60,084
Georgia	$ 2,392,788,372	$ 859,047,956	20,018
Hawaii	$ 1,065,050,335	$ 379,928,342	10,540
Idaho	$ 442,088,291	$ 193,686,113	3,706
Illinois	$10,662,175,260	$ 4,212,668,991	83,637
Indiana	$ 1,234,379,444	$ 436,074,781	10,758
Iowa	$ 729,781,290	$ 253,841,588	6,852
Kansas	$ 812,651,148	$ 267,953,433	7,870
Kentucky	$ 694,067,216	$ 249,594,101	6,138
Louisiana	$ 1,673,365,158	$ 625,554,704	13,789
Maine	$ 415,556,030	$ 143,676,834	3,725
Maryland	$ 1,793,329,251	$ 707,964,426	16,354
Massachusetts	$ 1,092,808,420	$ 464,179,319	8,539

Table 2 continued
Impact of Local Park and Recreation Agency Spending on State Economies—2015

State	Economic Activity (Transactions)	Labor Income	Employment (jobs)
Michigan	$ 2,417,155,826	$ 848,382,355	19,811
Minnesota	$ 2,520,078,194	$ 963,778,166	20,338
Mississippi	$ 385,515,710	$ 123,750,271	3,682
Missouri	$ 1,939,071,772	$ 719,028,082	16,638
Montana	$ 165,592,438	$ 56,546,136	1,610
Nebraska	$ 456,928,588	$ 163,700,472	4,121
Nevada	$ 1,395,219,091	$ 484,296,242	11,005
New Hampshire	$ 155,240,141	$ 56,719,483	1,529
New Jersey	$ 2,377,483,594	$ 940,967,698	18,846
New Mexico	$ 649,507,410	$ 219,503,679	5,807
New York	$ 5,238,672,197	$ 2,320,343,733	37,838
North Carolina	$ 2,768,897,361	$ 973,080,935	24,303
North Dakota	$ 790,913,186	$ 287,559,254	6,271
Ohio	$ 3,456,029,725	$ 1,266,492,579	30,005
Oklahoma	$ 1,222,829,260	$ 441,115,253	9,478
Oregon	$ 1,913,297,026	$ 716,303,856	17,015
Pennsylvania	$ 1,576,228,143	$ 613,539,291	12,508
Rhode Island	$ 118,431,709	$ 45,245,769	1,049
South Carolina	$ 1,283,952,787	$ 433,889,428	12,197
South Dakota	$ 677,708,959	$ 234,350,063	5,763
Tennessee	$ 1,499,373,334	$ 580,289,967	13,432
Texas	$ 7,715,962,668	$ 2,947,439,905	60,176
Utah	$ 1,756,688,784	$ 593,429,052	16,266
Vermont	$ 98,556,828	$ 36,291,188	914
Virginia	$ 3,267,539,215	$ 1,219,583,987	28,251
Washington	$ 2,655,316,657	$ 1,028,824,417	20,594
West Virginia	$ 208,933,657	$ 76,320,565	2,185
Wisconsin	$ 1,564,034,216	$ 557,893,058	13,268
Wyoming	$ 465,612,022	$ 164,769,727	3,944

Sources: U.S. Census Bureau, IMPLAN, Center for Regional Analysis

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