

# 2017 OUTLOOK LETTER

A REPORT PREPARED FOR  
THE NATIONAL ASSOCIATION OF STATE PARK DIRECTORS



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## OVERVIEW

This year's Outlook Letter is a more simple and concise presentation of the 'vital statistics' that characterize the operation and use of the nation's 50 state park systems. In the report, we detail historical trends relevant to state park system management using data within the Annual Information Exchange (AIX) archive. The Outlook Letter illustrates annual values aggregated across the 50 state park systems between the years of 1984 and 2016 for each of the following measures:

- Attendance;
- Operating Expenditures;
- Capital Expenditures;
- Revenues;
- Labor; and
- Acreage.

In addition to the historical trend analysis, we also forecast projected values for each measure into the near future (2017, 2018, and 2019). These projections are provided to give the leadership within the National Association of State Park Directors a better understanding of how park usage and management are likely to change in the years to come.

In previous years, we have also included an 'Analysis' section within the Outlook Letter that detailed our ongoing work to use advanced econometric models (e.g., stochastic frontier models) to highlight which state park systems have historically been better at efficiently providing outdoor recreation opportunities to their constituents given budgetary constraints. While we continue to pursue this line of research, we will no longer include a detailed reporting of them in the annual Outlook Letter. For those interested, our published work will be made available on the AIX project website (<https://research.cnr.ncsu.edu/rern/aix/>); it will also be shared at a variety of domestic and international academic conferences.

Our ongoing analytical work, along with the presentation of recent trends in the park systems' 'vital statistics', gives national- and state-level leadership a better understanding of what the future has in store for the vast array of high-quality outdoor recreation opportunities offered throughout the nation's state park systems.

## GENERAL FORECASTING METHODOLOGY

For each of the key variables reported in this outlook and analyses—attendance, operating expenditures, capital expenditures, revenue, labor and acreage—we forecast point estimates ahead for three years. This is accomplished through a weighted linear moving average. Data were estimated using the weighted linear trend over the previous 3 years, t-3. We assigned more weight to the observed data points closer to the year for which estimates are being calculated. Specifically, observed data for the year of estimation t was assigned a weight of 3, observed data at t-1 was assigned a weight of 2 and observed data at t-2 was assigned a weight of 1. For example the estimated attendance in 2017 was calculated as:

$$\frac{1}{6} ((1 \times \text{observed\_attendance\_2015}) + (2 \times \text{observed\_attendance\_2016}) + (3 \times \text{observed\_attendance\_2017}))$$

## 2016 STATISTICS FOR ALL U.S. STATE PARK SYSTEMS

**\$791.4 MILLION**  
VISITS (DAY USE + OVERNIGHT)

**\$2.5 BILLION**  
OPERATING EXPENDITURES

**\$935.3 MILLION**  
CAPITAL EXPENDITURES

**\$1.2 BILLION**  
REVENUES GENERATED

**50,116**  
FULL-TIME EMPLOYEES

**18.6 MILLION**  
ACRES

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## ATTENDANCE

Attendance refers to the total counts of day and overnight visitation to both fee and non-fee areas<sup>1</sup>. The long-term trends in attendance for all state park systems can be seen in Figure 1. Visitation to the states' park systems has risen steadily since the beginning of our sampling period in 1984 when they received a total of 642.6 million visits. Attendance reached its peak this past year (2016), when the states' park systems received 791.4 million visits. The record number of visits to the nation's state park systems is the result of a 4.15% increase over the 759.3 million reported in 2015.

Attendance is expected to gradually increase over the next three years (Figure 1). Based on recent trends, annual attendance is expected to hover around 780 million visits (772 million in 2017, 781 million in 2018 and 791 million in 2019).

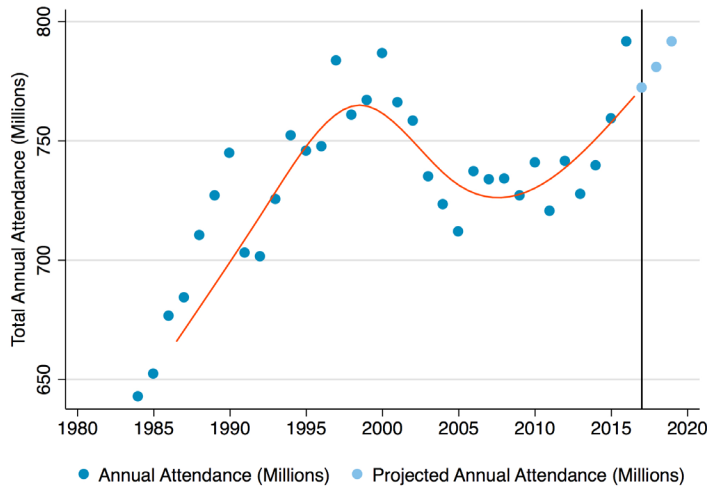


FIGURE 1. HISTORICAL AND FORECASTED ATTENDANCE FOR THE 50 STATE PARK SYSTEMS

## OPERATING EXPENDITURES

Operating expenditures are payments made for goods and services to manage a state park system. The long-term trends in operating expenditures, expressed as 2016 dollars, across all state park systems are illustrated in Figure 2. After controlling for inflation, the data reveal operating expenditures have risen over the past 32 years. On average, inflation adjusted op-

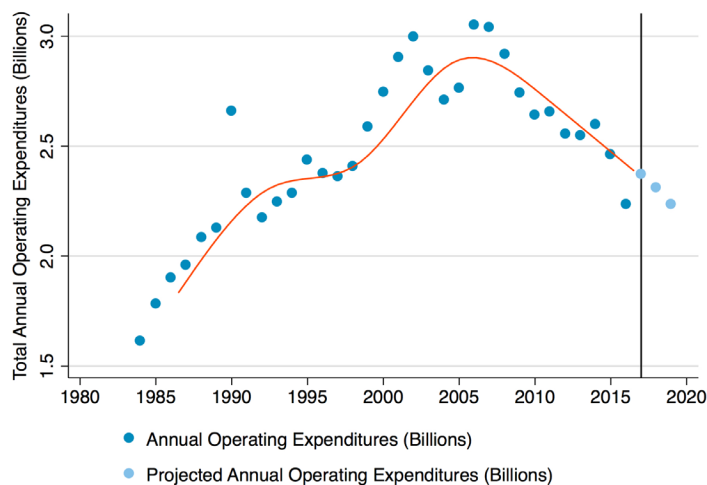


FIGURE 2. HISTORICAL AND FORECASTED OPERATING EXPENDITURES FOR THE 50 STATE PARK SYSTEMS

erating expenditures have increased by \$56.6 million dollars per year since 1984. More recently however, the states' park systems' inflation adjusted operating budgets have declined. For 2016 the states' park systems' inflation adjusted operating expenditures were \$2.46 billion.

Recent trends suggest expenditures associated with providing the goods and services required to manage the states' park systems will continue to decline over the coming years (Figure 2). We expect total operating expenditures for 2017 to be \$2.37 billion; this is expected to decrease to \$2.31 billion in 2018 and to \$2.23 billion in 2019.

## CAPITAL EXPENDITURES

Capital expenditures are non-recurring expenditures used to improve the productive capacity of a state park system<sup>1</sup>. Typically, these are for land acquisition, periodic park improvements and construction. The long-term trend in inflation adjusted capital expenditures reveals a relatively stable pattern over the past 32 years (Figure 3) with the exception of a notable spike in 2005. Inflation adjusted capital expenditures declined notably after the 2008 recession, as would be expected given large-scale reductions in state appropriations, park-generated revenues, and other funding sources tied to the health of the states' economies. Since 2012 however, this downward trend in capital expenditures has stopped and began to trend upward again. The states' park system managers reported capital expenditure of \$935.3 million in 2016, which is above the \$803 million reported in 2015; a 15.2% increase.

Recent trends suggest capital outlays for improving the productive capacity of the states' park systems will remain relatively stable just above \$800 million per year over the next three years (Figure 3). We estimate total capital expenditures to be \$802.5 million in 2017, \$833.3 million in 2018 and \$848.3 million in 2019.

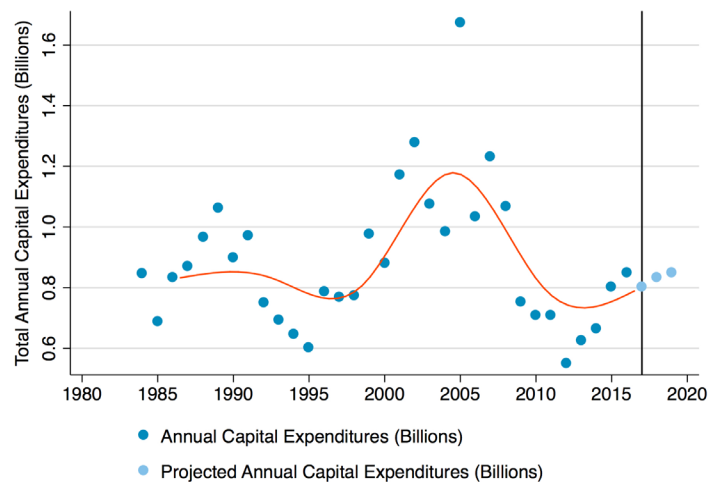


FIGURE 3. HISTORICAL AND FORECASTED CAPITAL EXPENDITURES FOR THE 50 STATE PARK SYSTEMS

## REVENUE

Revenue is money generated from use fees and charges; it includes all revenue from 'entrance fees', 'camping fees', 'cabin/cottage rentals', 'lodge rentals', 'group facility rentals', 'restaurants', 'concessions', 'beaches/pools', 'golf courses' and 'other' sources such as donations<sup>1</sup>. Revenue data within the AIX archive reveal steady increases throughout the 32-year sampling frame (Figure 4). This past year (2016) however, total revenues dropped to \$1.24 billion, a 7.89% decrease from the \$1.14 billion reported in 2015.

Given the consistency of reporting in annual revenue data, we can be very confident in our forecasted values for the upcoming years (Figure 4). We estimate total revenues generated across all state park systems will be \$1.14 billion in 2017, \$1.13 billion in 2018 and \$1.12 billion in 2019.

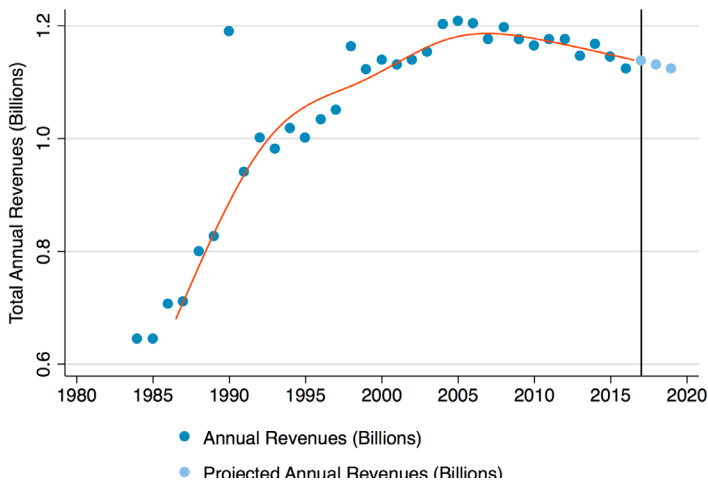


FIGURE 4. HISTORICAL AND FORECASTED REVENUES FOR THE 50 STATE PARK SYSTEMS

## LABOR

The labor required to maintain the states' park systems saw increases from 1984 to the early 2000s (Figure 5). State park system operators reported a high of 57,815 employees in 1985. However since 2002, total employment across the states' park systems has declined. This is notable given the gradual increases in both attendance and acreage over the same time period. The trends illustrate a persistent demand placed upon state park operators to accommodate more users across larger areas with fewer and fewer personnel.

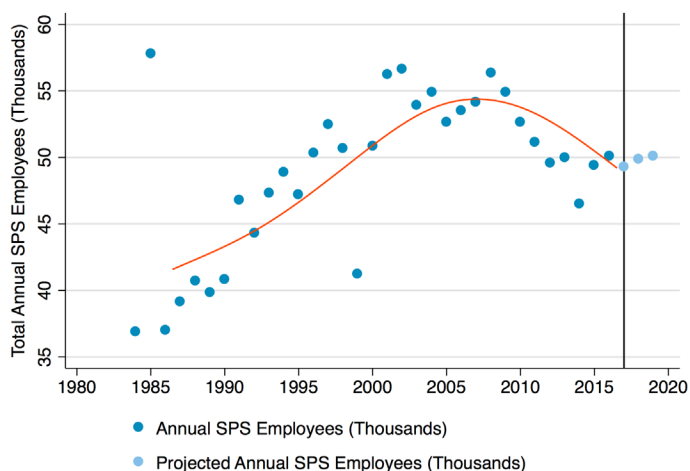


FIGURE 5. HISTORICAL AND FORECASTED LABOR FOR THE 50 STATE PARK SYSTEMS

Data from 2016 reveal a notable increase in the total number of employees. A total of 50,116 positions were reported for 2016, a 1.4% increase from the 49,413 reported in 2015.

Recent trends suggest the states' park systems will begin to increase employment levels over the coming years (Figure 5). We expect total employment to be 49,277 in 2017, 49,881 in 2018 and 50,116 in 2019.

## ACREAGE

Acreage refers to the total acreage within the states' park systems managed as 'parks', 'recreation areas', 'natural areas', 'historical areas', 'environmental education areas', 'scientific areas', 'forests', 'fish and wildlife areas' and 'other miscellaneous areas'<sup>1</sup>. The total area managed within the states' park systems has increased steadily since 1984 with notable expansions in recent years (Figure 6). Specifically, the year 2014 saw a 17.7% increase in acreage over 2013, growing from 15.25 million acres to 18.20 million acres. This past year (2016), the states' park systems continued to grow as total acreage increased to 18.60 million acres; this is a 1.22% increase over 2015.

We expect the total size dedicated to the states' park systems will continue to increase gradually over the coming years (Figure 6). Based on recent trends, total acreage in 2017 will be 18.2 million acres. In 2018 the size is expected to increase to 18.5 million and in 2019, it is expected to reach 18.6 million.

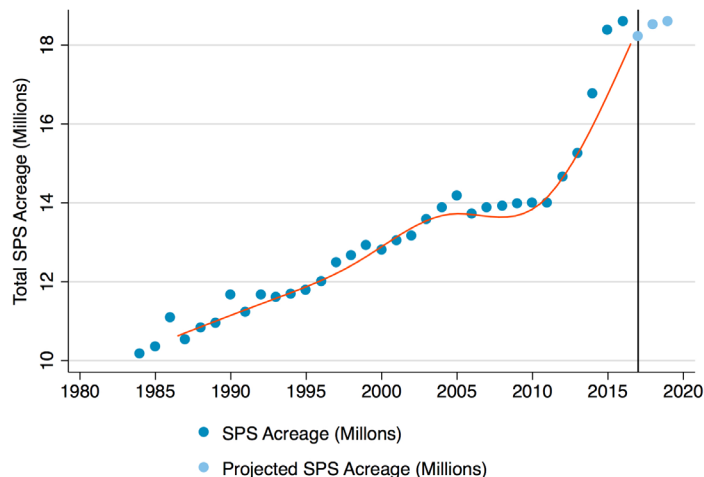


FIGURE 6. HISTORICAL AND FORECASTED ACREAGE FOR THE 50 STATE PARK SYSTEMS



INDIANA DUNES STATE PARK