The Economic Impact of Arizona State Parks

Executive Summary

Lake Havasu State Park

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Arizona State Parks have a significant economic impact on the communities and counties in which they are located. A state park's value is, of course, not measured by economic impact alone. Parks enhance community quality-of-life and preserve priceless historic, cultural, and recreational resources for residents and visitors from around the world. However, communities are increasingly recognizing that State Parks improve the economic well-being of rural counties and serve as an important tourism resource.

This report analyzes the impact of 27 Arizona State Parks on the economies of the 13 counties in which they are located. The economic impact of a state park is a function of visitor population and direct visitor spending, combined with multipliers (that vary across counties) reflecting the extent of re-circulation of visitors' money in the local economy. Thus, this study of the economic impact of Arizona State Parks produced the following findings:

- Total visitation to the Arizona State Park system fell from 2,513,401 in FY01 to 2,298,155 in FY07, a decline of 8.6 percent.

Direct spending by Arizona State Park visitors totaled $162,799,442 in FY07.

- Per person spending at Arizona State Parks totaled $70.84 in 2006-07.

Arizona State Parks are divided into three types – Conservation Parks (4 parks), Historic Parks (9 parks), and Recreation Parks (14 parks).

- The *combined* total economic impact (direct spending, indirect and induced impacts) of each park type on Arizona counties was:
    - Recreation parks – $156.8 million
    - Historic parks – $35.4 million
    - Conservation parks – $32.2 million

- As a group, recreation parks generated the largest visitation and economic impact. The three recreation parks with the largest total economic impact were:
    - Lake Havasu State Park (Mohave County) - $34.5 million in 2007
    - Slide Rock State Park (Coconino County) - $30.1 million in 2007
    - Catalina State Park (Pima County) - $19.6 million in 2007

- Calculated at the state level for FY07, the total economic impact of Arizona State Parks on the state was $266,436,582.

Methodology

Calculations of the economic impact of state parks are based on park attendance.

Table 1a. Visitation by Park

County	State Park Name	Park Visitation 2006-2007
Apache	Lyman Lake	36,298
Cochise	Kartchner Caverns	155,909
Cochise	Tombstone Courthouse	52,989
Coconino	Riordan Mansion	26,013
Coconino	Slide Rock	249,409
Gila	Tonto Natural Bridge	94,026
Graham	Roper Lake	73,230
La Paz	Alamo Lake	72,066
La Paz	Buckskin Mountain	96,529
Mohave	Cattail Cove	98,419
Mohave	Lake Havasu	314,519
Navajo	Fool Hollow	95,495
Navajo	Homolovi Ruins	15,953
Pima	Catalina	149,644
Pinal	Boyce Thompson Arboretum	65,108
Pinal	Lost Dutchman	77,683
Pinal	McFarland	3,968
Pinal	Picacho Peak	63,393
Pinal	Oracle	9,592
Santa Cruz	Patagonia Lake	178,497
Santa Cruz	Tubac Presidio	14,439
Yavapai	Dead Horse Ranch	120,686
Yavapai	Fort Verde	16,950
Yavapai	Jerome	60,307
Yavapai	Red Rock	80,711
Yuma	Yuma Quartermasters Depot	17,628
Yuma	Yuma Territorial Prison	58,694
	Total Visitation	2,298,155

Expenditure data used to make the calculations in this report are derived from two sources: the Arizona State Park 2006-07 Visitor Survey (for out-of-park expenditures) and Arizona State Parks FY07 Park Summary report (for in-park expenditures). Total direct expenditures on the part of visitors to each Arizona State Park were requested and collected according to the categories shown below in the Arizona State Park Visitor Survey.

- In-Park Expenditures
- Admission Fees (including permits or licenses)
- Camping Fees
- Groceries
- Food & Beverages (restaurants, etc.)
- Recreational Equipment and Supplies
- Retail Shopping (clothing, souvenirs, gifts, etc.)
- Lodging Expenses (hotel, motel, condos, etc.)
- Private Auto Expenses (gas, oil, repairs, parking fees, etc.)
- Tourist Services (museums, tours, etc)
- Any Other Expenses

The total economic impact of each park was estimated using the IMPLAN™ economic impact model[1], which estimates the total income generated in the county economy, including direct, indirect and induced income, and the number of jobs in the county economy supported by this level of visitor spending. **The spending of visitors with ZIP codes in the county or within 50 miles of the park was excluded since such visitors do not add *new money* to the local economy, a standard procedure used in economic impact studies.** In the prior economic impact study of Arizona State Parks (2002), a model developed by Silvers-Pavlakovich at the University of Arizona was used.[2] Differences between the Silvers-Pavlakovich model and IMPLAN™ are generally due to the initial model construction, but have other differences as well. Therefore the economic impact results from the two models (FY01 and FY07) are not presented side by side. In addition, due to the differences between the models and the fact that no direct comparisons are made between the 2001 and 2007 findings in this report, 2007 data are not adjusted for inflation.

Using the IMPLAN model, the full set of economic impact calculations are produced for each of 27 Arizona State Parks and for the state of Arizona overall. Maricopa and Greenlee Counties are not included in this study because they contain no Arizona State Parks. Visitor expenditure data are organized alphabetically by county in the report that follows, combining the State Parks within each county; each county report, therefore, stands as a discrete document.

Throughout the Economic Impact report, three sets of information will be provided for each park: *direct, indirect, and induced* effects. *Direct* effects are the portion of visitors' expenditures that are spent by the tourism sector for inputs necessary to provide goods

[1] Minnesota IMPLAN Group, Inc.
[2] University of Arizona

and services. For example, a tourist visits a state park in County Y, and spends X dollars at a hotel. Then X dollars is the *direct* effect of his expenditures. The hotel in turn spends a portion of the initial expenditure on inputs necessary to run the operation (electricity, maid service, and so forth). Some of the hotel's spending will occur outside of county Y. However, the portion that the hotel spends within the county again contributes to the economy. This impact of the initial tourist expenditures is termed the *indirect* effect. Finally, those individuals or firms within county Y who receive money through the *indirect* effect in turn spend money in the county. This final effect is termed the *induced* effect of the initial expenditure. The ratio of the three effects combined to the initial expenditure is labeled the output multiplier for that expenditure. Therefore an output multiplier is the sum of direct (tourist spending), indirect (hotel spending) and induced (consumption) divided by direct tourism spending. Similarly, direct jobs are jobs that are supported by direct expenditures, while indirect and induced jobs are those supported by indirect and induced expenditures. *It is important to remember that direct jobs are jobs supported by visitor expenditures in the county and may include but are not limited to jobs in the parks.*

The following table summarizes total county income and jobs produced by the IMPLAN™ analysis for FY07.

Table 2a. State Parks by County Income and Jobs

County / Park	***Total County Income ($)***	***Total County Jobs***
Apache County		
Lyman Lake (Rec)	$2,447,506	35
Apache County Total	**$2,447,506**	**35**
Cochise County		
Tombstone Courthouse (His)	$7,225,150	101
Kartchner Caverns (Con)	$12,333,199	188
Cochise County Total	**$19,558,349**	**289**
Coconino County		
Riordan Mansion (His)	$6,781,494	101
Slide Rock (Rec)	$30,087,905	422
Coconino County Total	**$36,869,399**	**523**
Gila County		
Tonto Nat. Bridge (Rec)	$3,621,346	38
Gila County Total	**$3,621,346**	**38**
Graham County		
Roper Lake (Rec)	$5,724,685	77
Graham County Total	**$5,724,685**	**77**

County / Park	*Total County Income ($)*	*Total County Jobs*
La Paz County		
Alamo Lake (Rec)	$5,608,937	72
Buckskin Island (Rec)	$10,456,400	137
La Paz County Total	**$16,065,337**	**209**
Mohave County		
Cattail Cove (Rec)	$13,184,301	187
Lake Havasu (Rec)	$34,514,609	484
Mohave County Total	**$47,698,910**	**671**
Navajo County		
Fool Hollow Lake Recreation Area (Rec)	$5,824,440	73
Homolovi Ruins (His)	$3,501,468	44
Navajo County Total	**$9,325,908**	**117**
Pima County		
Catalina (Rec)	$19,604,659	262
Pima County Total	**$19,604,659**	**262**
Pinal County		
Boyce Thompson (Con)*	$2,644,753	20
Lost Dutchman (Rec)	$4,190,586	46
McFarland (His)	$613,318	6
Picacho Peak (Rec)	$2,453,130	26
Oracle (Con)	$217,474	3
Pinal County Total	**$10,119,261**	**101**
Santa Cruz County		
Patagonia Lake (Rec)	$8,974,106	128
Tubac Presidio (His)	$256,377	4
Santa Cruz County Total	**$9,230,483**	**132**
Yavapai County		
Dead Horse Ranch (Rec)	$10,135,704	143
Fort Verde (His)	$2,420,337	33
Jerome (His)	$7,006,241	93
Red Rock (Con)	$17,005,170	225
Yavapai County Total	**$36,567,452**	
Yuma County		
Yuma Territorial Prison (His)	$5,815,585	84
Yuma Quartermaster Depot (His)	$1,826,521	26
Yuma County Total	**$7,642,106**	**110**

NOTE: Abbreviations in Parentheses refer to Park Type.
Rec = Recreation Park; His = Historic Park; Con = Conservation Park.

Economic Impact of Arizona State Parks at the State Level

For the first time, the total economic impact of Arizona State Parks on the state as a whole has been prepared in this 2007 study by using the separate state-level model provided within the IMPLAN model. To perform this analysis, visitor spending in the parks was aggregated from all parks *by sector*, as shown in Table 3a, and these totals were then used as inputs for the IMPLAN calculations. It should be pointed out that the model does not allow for the simple summation of all the county level impact totals to produce a state economic impact number.

Thus, it was estimated that total direct expenditures in the Arizona State Park system equaled $162,799,442 in FY07, as shown in Table 3a. These total direct expenditures of $162.8 million resulted in an additional $47,218,295 of indirect income, and $56,418,845 of induced income. This resulted in a total of $103,637,140 of total indirect and induced income to the state.

When direct, indirect and induced income is combined **the total impact of visitors to state parks in Arizona during FY07 is $266,436,582.** This total state income resulted in 2,397 direct jobs and 950 indirect jobs for a total of **3,347 total jobs**.

Finally, visitors' expenditures combined with their direct and induced impacts resulted in $21,171,627 in Federal Government taxes and $22,762,326 in state and local government taxes. The total tax impact of Arizona State Park visitors in 2007 was $43,933,953. See Table 3a.

Table 3a. Economic Impact of Arizona State Parks on the Arizona Economy, FY07

Direct Expenditures by Visitors ($)	2007
In-park expenditures	$11,415,253
Admission	$11,319,639
Camping	$5,810,930
Groceries	$27,129,959
Food & Beverages	$24,375,662
Recreation Equipment Supplies	$4,708,540
Retail Shopping	$15,347,294
Lodging	$18,594,618
Personal Auto Expenditures	$32,345,735
Tourist Services	$5,012,916
Other Expenses	$6,738,895
Total direct expenditures	$162,799,442

Indirect and Induced State Income ($)	2007
Indirect income	$47,218,295
Induced Income	$56,418,845
Total State Indirect and Induced Income	$103,637,140

Indirect and Direct State Employment	2007
Direct Jobs	2,397
Indirect Jobs	950
Total State Jobs	3,347
Total State Income	$266,436,582

Tax Impacts	2007
Federal Government Non Defense	$21,171,627
State & Local Government	$22,762,326
Total taxes	$43,933,953

APPENDIX

Arizona State Park Visitation, Intervening Years

Arizona State Park Visitation FY 2000/01 to 2006/07

County	Park Name	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07
Apache	Lyman Lake	28,304	31,831	19,151	26,228	39,591	40,395	36,298
Cochise	Kartchner Cavern	199,115	193,180	187,355	203,378	198,374	160,467	155,909
Cochise	Tombstone	74,105	70,328	52,350	50,814	48,247	49,121	52,989
Coconino	Riordan	19,194	23,288	22,757	23,789	24,041	23,906	26,013
Coconino	Slide Rock	275,554	233,116	199,287	243,298	238,521	238,587	249,409
Gila	Tonto Natural Bridge	100,178	101,052	84,555	98,975	83,338	90,450	94,026
Graham	Roper Lake	60,242	57,191	35,266	37,141	48,376	69,985	73,230
La Paz	Alamo Lake	70,969	82,524	54,739	33,977	35,020	61,163	72,066
La Paz	Buckskin	93,999	93,672	93,727	87,764	88,988	85,048	96,529
Mohave	Cattail Cove	106,939	108,930	108,365	112,298	105,812	95,498	98,419
Mohave	Lake Havasu	345,590	397,961	396,062	376,158	346,858	345,853	314,519
Navajo	Fool Hollow	84,527	84,525	60,217	71,017	73,321	89,042	95,495
Navajo	Homolovi	20,644	22,297	19,265	17,618	16,656	15,587	15,953
Pima	Catalina	154,806	125,739	120,032	123,165	124,942	138,341	149,644
Pinal	Boyce Thompson	87,238	86,504	71,291	70,868	81,579	63,599	65,108
Pinal	Lost Dutchman	114,253	78,076	76,484	61,510	88,319	75,549	77,683
Pinal	McFarland	4,162	3,725	3,175	3,289	3,442	3,454	3,968
Pinal	Oracle	*2,250	10,640	8,669	8,705	8,384	9,062	9,592
Pinal	Picacho Peak	117,652	68,032	55,680	61,989	105,300	56,321	63,393
Santa Cruz	Patagonia Lake	196,332	216,699	205,415	203,005	202,785	180,244	178,497
Santa Cruz	Tubac Presidio	18,770	20,232	15,926	16,710	16,295	16,919	14,439
Yavapai	Dead Horse	103,089	105,749	100,780	93,415	88,350	98,269	120,686
Yavapai	Fort Verde	21,450	18,476	15,754	15,472	17,290	16,530	16,950
Yavapai	Jerome	53,128	33,038	46,452	50,738	56,008	58,049	60,307
Yavapai	Red Rock	76,393	69,420	76,449	73,769	76,188	72,644	80,711
Yuma	Yuma Quartermaster Depot	16,959	13,813	13,995	12,584	13,297	15,641	17,628
Yuma	Yuma Prison	69,698	60,345	58,622	58,233	57,002	54,868	58,694

Source: Arizona State Parks: Park Summaries, FY01 to FY07

*Oracle State Park was officially opened to the public on October 1, 2001, prior to that it was only available for environmental education programs on a reservation basis.