The Economic Impacts of the Maricopa County Parks and Recreation Department

With a staff of just over 80 employees, Maricopa County Parks and Recreation Department (Department) manages one of the nation's largest regional park systems with over 120,000 acres of prime desert and mountainous open space parks. Currently, the system comprises 10 regional parks which were visited by more than 1.6 million people in 2015. These parks offer hundreds of miles of trails, campgrounds, and nature centers, and host numerous educational opportunities and other amenities.

In an effort to understand and appreciate how it's operational and visitor spending benefits Maricopa County (County), the Department, in partnership with the Central Arizona Conservation Alliance, sponsored Arizona State University (ASU) to perform an economic impact analysis on eight[1] of its 10 parks. These eight parks best represent the most typical features of a desert mountain park.

During fiscal year 2014, the Department incurred approximately $10.4 million in operational and administrative expenses; $8.2 million of which was incurred directly by the eight regional parks studied. Funding for all operational and administrative expenses is nearly 93% self-generated and comes largely through user fees and other self-generating revenue. Only seven percent, or about $565,000, of operating and administrative costs is invested through the County general fund.

This synopsis summarizes the findings of the full ASU study; the "2014 Maricopa County Parks and Recreation Department Study Report, Economic Impact of the Maricopa County Parks and Recreation System[2]" (ASU study). The source of all data and statistics referred to herein emanate from the ASU study, with the referenced page number or table noted in parenthesis.

The ASU study calculated the Department's overall economic impact of both visitor spending and total operating expenses within the Phoenix Metropolitan Statistical Area (MSA) includes (Chhabra, pp5-6):

- **42% return on investment (ROI)**
- $24.2 million in output
- $20.8 million in gross regional product
- $14.2 million in labor income
- 301 supporting jobs in the greater community

Economic Impacts

The ASU study offers a look into the economic impacts of the Department upon the County and its residents. Economic impacts are measured in multiple ways, which makes it difficult to define one discrete number and increases the odds that all measurements are underestimated. As shown in the graphs below, the ASU study further defines output, value-added, and labor income as follows (Chhabra, p9):

[1] Cave Creek Regional Park, Estrella Mountain Regional Park, Lake Pleasant Regional Park, McDowell Mountain Regional Park, San Tan Mountain Regional Park, Spur Cross Ranch Conservation Area, Usery Mountain Regional Park, and White Tank Mountain Regional Park.

[2] Chhabra, D., Steffey, E., & Zhao, S. (2014). 2014 MARICOPA COUNTY PARKS AND RECREATION DEPARTMENT STUDY REPORT, Economic Impact of the Maricopa County Parks and Recreation System.

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- Output: The total value of production; typically represents value-added and labor income combined.
- Value Added: The combination of labor income, other property type income and indirect business taxes.
- Labor Income: Composed of two components, employee compensation and proprietor income.

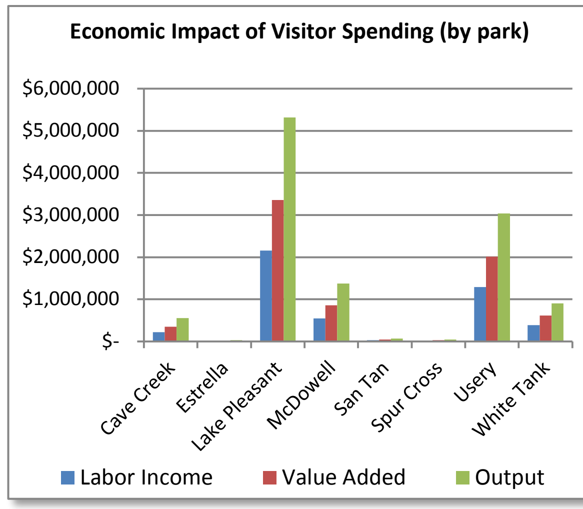
Leverage Ratio

The leverage ratio implies that for every one dollar of County investment, a certain dollar amount is returned to the local economy in the form of resident income. For example, Usery Mountain Regional Park shows the highest ROI and its leverage ratio indicates that for that every one dollar invested and additional $2.51 is generated in resident income (or a 151% ROI). Conversely, for every one dollar invested at Estrella Mountain Regional Park, only $0.89 is generated in resident income (or a -11% ROI). The leverage ratio for the eight parks studied returns $1.42 for each dollar of investment or a 42% ROI. Leverage ratios for each of the eight parks studied are as follows (Chhabra, p13):

Park	**Leverage Ratio**
Cave Creek Regional Park	1:1.13
Estrella Mountain Regional Park	1:0.89
Lake Pleasant Regional Park	1:1.26
McDowell Mountain Regional Park	1:1.49
San Tan Mountain Regional Park	1:1.00
Spur Cross Ranch Conservation Area	1:1.11
Usery Mountain Regional Park	1:2.51
White Tank Mountain Regional Park	1:1.06
Park System	*1:1.42*

Impact of Visitor Spending

It is estimated that park visitors spent a total $13.72 million within the local gateway region or within 10 miles of each park (Chhabra, p5, 14). This type of spending supports about 139 full-time jobs (Chhabra, p14, table 3). Each park's visitor spending impact is shown below.



Impact of Total Operating Expenses

The value added impact of annual operating expenses within the Phoenix MSA is $9.7 million (Chhabra, p19) for the eight parks studied. This amount is distributed among a variety of industry types, creating at least 264 full-time jobs. Employment and payroll, commercial and industrial machinery, and equipment repair and maintenance are amongst the top industries impacted (Chhabra, p5, 15, 19; tables 4 and 10). Each park's impact is shown below:

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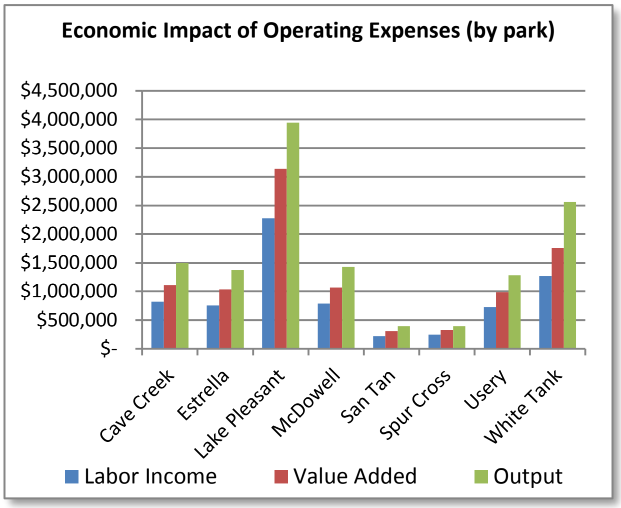

Tax revenues

The total tax contributions as a result of visitor expenditures and operating expenses combined equal $2.2 million in federal taxes and $1.2 million in both state and local taxes (Chhabra, p5, tables 11 and 13).

Study Limitations: Underestimation of Impact

Study authors noted limitations such that "it is highly likely that the economic impact of visitor spending at all eight parks is underestimated" (Chhabra, p6). For example, the study includes only eight of the Department's 10 primary parks. While these eight parks best represent the most typical features of a desert mountain park, they do not represent the entire portfolio of revenue generating properties. However, the intent of this study was to analyze properties dedicated as *parks* rather than golf courses or other amusement-themed properties. Nonetheless, those concessionaires also generate significant revenue that surpasses general park revenues and future analysis should include those properties.

This study was further limited by the need to use secondary versus primary data (limited customizing of the study) and the inability of the IMPLAN software to accommodate inconsistencies in data or unique expenditure and revenue items. These limitations left some expenditure and revenue items unaccounted for.

Aside from limitations noted by the ASU study's authors, debate over how the leverage ratio was calculated is also worth noting. The ASU study used the Greenwood & Vick (2008) method to factor the leverage ratio or the number of dollars generated for local residents for every dollar invested by the MCPRD via the *annual operating expenses* (Chhabra, p5, 7). It could be argued that only the $565,000 received from the general fund is the actual County "investment," as all other operating revenue is self-generated from user fees. Using this lower investment amount versus the entire operating budget would dramatically increase the leverage ratio.

Additional research using primary data is recommended to fully determine the economic impact of the County parks system; that research could include the value of park volunteers, property values and property taxes, ecological services, and other intrinsic or hedonistic values. Despite the limitations of the ASU study, the Department has been shown to produce a significant positive economic impact on the County and its residents.

View the full ASU study online at:
http://www.maricopa.gov/parks/
or
http://mymountainparks.org/