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Did the Great Recession Reduce Visitor Spending and Willingness to Pay for Nature-Based Recreation? Evidence from 2006 and 2009.

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Background

Outdoor recreation is a relatively large industry that can diversify public land based economies that have traditionally relied upon resource extraction. However, are nature based recreation expenditures and consumer surplus stable during times of national economic recession? To address this question, we replicate a 2006 high mountain recreation study in the same region, three years later during the 2009 recession.

Study Site:

Quandary Peak, Summit County Colorado

Quandary Peak, reaches 14,265 feet above sea level, qualifying as one of the 54 "Fourteeners," in Colorado.



Mosquito Range, Including Mountains Democrat, Lincoln, Bross and Quandary
Photo Courtesy of Colorado Fourteeners Initiative



Problem Statement

- 1) Are high WTP values the result of a robust economy, or are these values reflective of a unique recreation experience?
- 2) Do expenditures and/or WTP change when the economy worsens?

Hypotheses Tests

- 1) Do visitor expenditures change before and after the recession?
 - Ho: $\text{Expend}_{i2006} = \text{Expend}_{i2009}$ vs. Ha: $\text{Expend}_{i2006} > \text{Expend}_{i2009}$
- 2) Does visitor WTP change before and after the recession?
 - Ho: $\text{Mean WTP}_{2006} = \text{Mean WTP}_{2009}$ vs. Ha: $\text{Mean WTP}_{2006} > \text{Mean WTP}_{2009}$

Data Collection

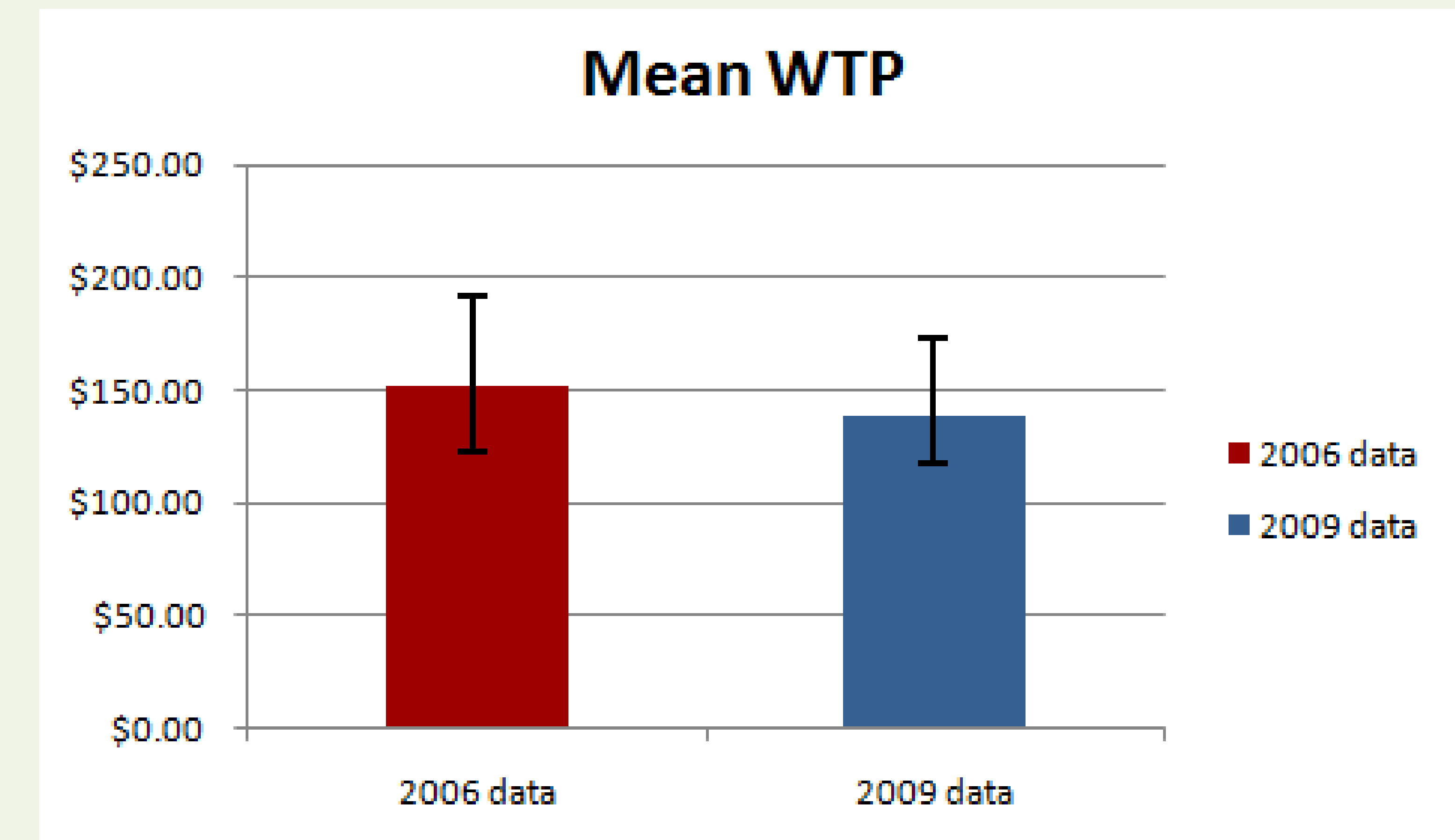
- In 2006, 199 mail back surveys were distributed at the trailhead of Quandary Peak. 129 surveys were returned, for a response rate of 65%.
- In 2009, 345 mail back surveys were distributed with a response rate of 72%.

Expenditure Results

- No statistical difference between visitor expenditures in 2006 and 2009 at the 5% level of significance, with the exception of gasoline purchases which is significantly different at the 10% level. The decreased expenditures on gasoline may be attributable to the fact that visitors, on average, traveled fewer miles to the recreation site in 2009 compared to 2006.

The WTP question:

As you know, some of the costs of travel such as gasoline, campgrounds, and hotels often increase. If the **total cost** of this most recent trip to the recreation area where you were contacted had been **\$X higher**, would you have made this trip to **this Fourteener**?



WTP Results

• The mean WTP per person per trip in 2009 is \$139 which is 9% below the WTP per person in 2006. However, the 90% confidence intervals in 2006 overlap the mean WTP in 2009 and vice versa. This indicates there is no statistical difference between the WTP per person per trip in 2006 and 2009. These values are higher than typical WTP values.

Conclusions

Visitor spending on nature-based tourism remained remarkably stable from 2006-2009. This leads us to conclude that, at least in Colorado, unique, nature-based tourism experiences such as hiking a Colorado Fourteener appears to be fairly recession proof.

Additionally, despite the recession, WTP changed by just 9%. Thus, for public lands management agencies who are required to develop long term plans, it may not be unreasonable for them to presume that recreation benefits over such a long time period are fairly stable.

Comparison of 2006 and 2009 Per Trip Hiker Expenditures in Colorado (\$2006)

