

## An Exploratory Examination of Perceptions of Impacts to a Coastal Destination: Tourists Versus Locals

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# An Exploratory Examination of Perceptions of Impacts to a Coastal Destination: Tourists Versus Locals

## **Cover Page Footnote**

The author would like to acknowledge his students in a coastal tourism development course that aided in the data collection.

## Introduction

Coastal tourism and development can have negative and positive impacts as it pertains to a destination's physical, economic and sociocultural conditions. With many economies surrounding coastal communities experiencing growth due to nature and heritage based tourism, how much visitation can be sustained before a coastal community and destination loses its appeal? While there is plenty of supply side research documenting how coastal communities are impacted by tourism (e.g., Brebbia, 2008; Mason, 2016), as well as research examining resident perceptions of tourism impacts (Andereck & Valentine, 2005; Boley, McGehee, & Hammett, 2017; Boley, McGehee, Perdue, & Long, 2014; Ernoul, 2009; Francis, 2010; Frauman & Banks, 2011; Harrill, 2004; Liu, Sheldon, & Var, 1987; Sharma & Dyer, 2009), and tourist's views linked to impacts (du Plessis, 2010; Hillery, Nancarrow, Griffin, & Syme, 2001; Moyle, Weiler, & Croy, 2013; Priskin, 2003; Rozelee, Rahman, & Omar, 2015), there is little comparing tourist to resident perceptions (e.g., Puczko & Rátz, 2000). Moreover, there is no research in this context examining resident's perceptions of how they impact the communities they live in.

A brief summary of the previously cited research concerning resident-only studies found that residents believed more positive environmental impacts came from tourism (e.g., protection and maintenance of environmental assets) than negative ones, while also recognizing that increased tourism meant more noise, overcrowding, and traffic (Francis, 2010). Sharma and Dyer (2009) found that residents living in a coastal area with high tourist activity perceived a more positive impact of tourism than residents of outlying areas, though outlying residents were more likely to perceive positive social impacts than the residents living in coastal areas. Significant differences were also noted for perceptions of tourism impacts according to respondents' level of household income, but not in relation to age, gender and level of education (Sharma and Dyer, 2009). In addition to finding that residents placed the greatest concern on environmental attributes, Frauman and Banks (2011) found that location of residence in the destination area and status as a permanent resident versus a second homeowner greatly influenced resident perceptions of environmental, economic, and sociocultural factors.

Moyle et al. (2013) found that tourists recognized that tourism activity increases impacts. Overall, they found that tourists believed they primarily contributed to positive economic and sociocultural impacts, and that these were generally good for island communities. On the other hand, the tourists generally perceived that tourism increased negative environmental impacts. Given the findings, Moyle et al. (2013) suggested that island tourists they studied might

perceive their impacts to be different and more favorable than the impacts of tourism and tourists generally. Priskin (2003) in examining tourists engaged in coastal nature-based recreation activities found that they are generally aware of the impacts associated with their activities, but that perception does not necessarily equate to responsible behavior. Rozelee et al. (2015) found that not only could tourists identify environmental impacts to coastal settings and how they contribute to them, but that tourists with a higher education level seemed more responsible towards the environment. Rozelee et al. (2015) further acknowledged that tourists' perceptions could be as useful as residents' perceptions despite previous studies that have concluded tourists are not very perceptive of natural areas visited.

Of the one study found that examined both resident and tourist perceptions, Puczko and Rätz (2000) found that tourists perceived less general impacts to natural and built environments, although when asked to specifically describe impacts tourists were more likely to mention negative impacts related to wildlife, air and water quality, than locals. Tourists also believed tourism enhanced the natural environment to a greater degree than locals did, while locals expressed greater concern about traffic, wear and tear, and personal inconveniences than tourists (Puczko & Rätz, 2000).

This study evolved from a college coastal tourism course taught over a number of years where anecdotal information gleaned from informal conversations with tourists and residents revealed differences in how they believed they impacted the coastal environment and community. Believing coastal tourism development should seek a balance between economic, natural resource, and social concerns, a more formal examination of perceived impacts by tourists and residents was undertaken to provide important information for varied stakeholders (e.g., Convention and Visitors Bureaus, local governments). Three research questions guided this study:

- 1) How do tourists perceive their impacts to a popular coastal destination?
- 2) How do tourist's perceptions of their impacts compare to resident's perceptions of their impacts to the same destination?
- 3) How might the information found from the previous two questions aid destination management organizations, local government officials, tourism planners and researchers, and other stakeholders?

## **Methods**

A one-page survey was developed and administered to 101 adults at a popular coastal destination in South Carolina over a weekend in May 2016. A

convenience sampling approach was undertaken. Using a 5-point Likert scale (1=extremely negative; 5=extremely positive), the survey measured 16 environmental, social, or economic conditions linked to the area. Respondents were also asked which of the 16 conditions they thought was most positively impacted, as well as which one was most negatively impacted by the type of respondent they identified with. Demographic questions were also asked. The 16 conditions used in the survey were based on a review of previous studies that had examined resident or tourist perceptions of their impacts (Boley, McGehee, & Hammett, 2017; Boley, McGehee, Perdue, & Long, 2014; Frauman & Banks, 2011; Puczko & Rätz, 2000). Data was analyzed using Statistical Package for the Social Sciences (SPSS) version 22. *Note:* To aid respondents who may have had seasonal second home residences in the coastal community, the survey used the terms “tourists” and “locals” – as such, “locals” is used throughout much of the paper with second homeowners considered locals.

## Results

One hundred surveys were deemed usable for data analysis. Approximately 40.0% of the sample was tourists ( $n = 39$ ). Table 1 delineates a comparison between tourists and locals across a number of demographic items. There are some distinct differences particularly concerning lower levels of education attained, age range and standard deviation, as well as median income. Given the timing of the study, sample size and location where most of the surveys were administered, it is difficult to determine if the values are within a normal range of what would be expected. That said Table 1 does provide a snapshot of respondents to aid in interpreting the remaining results.

*Table 1*  
Demographic Comparisons Between Tourists and Locals

| Demographic Variable | Tourists | Locals |
|----------------------|----------|--------|
| Gender               |          |        |
| Male                 | 44.7%    | 49.1%  |
| Female               | 55.3%    | 50.1%  |
| Age                  |          |        |
| mean                 | 37.5     | 30.8   |
| median               | 34.0     | 28.0   |
| standard deviation   | 15.7     | 10.3   |
| range                | 55       | 36     |
| Income               |          |        |

|                    |                   |                        |
|--------------------|-------------------|------------------------|
| mean               | \$71,316          | \$85,892               |
| median             | \$61,000          | \$77,500               |
| standard deviation | \$59,464          | \$53,403               |
| range              | \$0-<br>\$200,000 | \$20,000-<br>\$189,000 |
| Education          |                   |                        |
| High school        | 3.1%              | 21.6%                  |
| Some college       | 56.3%             | 37.3%                  |
| Bachelors degree   | 28.1%             | 35.3%                  |
| Masters degree     | 6.3%              | 3.9%                   |
| Doctoral degree    | 6.3%              | 2.0%                   |

While not the primary intention of this exploratory study to develop a reliable and valid scale concerning perceived impacts, reliability analysis was performed on the overall scale, as well as the three components linked to environmental (5 items), social (4 items), and economic (7 items) conditions. The Cronbach alpha value for the overall scale was .778 with no items positively impacting the value if deleted from the scale. For the five items making up environmental conditions (e.g., air quality), the Cronbach alpha value was .851 with no items positively impacting the value if deleted from the scale. For the four-item social conditions (e.g., traffic) component, Cronbach alpha equaled .696, while for economic conditions (e.g., job creation) Cronbach alpha equaled .730, with no items positively impacting the value if deleted from the scale. Given the exploratory nature of the study no items were removed from further analysis.

Mean differences between tourists and locals across the 16 impact items are displayed in Table 2. Of the 16 items evaluated, there were four statistically significant differences ( $p < .10$ ) (*Note: Given the exploratory nature of the study a less conservative p-value was used*). Three of the four differences were linked to environmental conditions with tourists believing they had less of a positive impact than locals on each of the items – air quality, water quality, and natural environment. The other significant item was linked to the amount of traffic with locals believing they had a greater negative impact than tourists.

Concerning the four items making up the social conditions, tourists believed they had less of a negative impact than locals for three of the items. For the five items measuring environmental conditions, tourists believed they had a more negative impact than locals for each item. Of the seven items measuring economic conditions, tourists and locals were more similar than for social and environmental conditions with each group describing a fairly positive impact.

Table 2

Independent Sample T-test Mean Differences Between Tourists and Locals across Impact Items

| Impact Item                      | Tourists | Locals | <i>p</i> -value |
|----------------------------------|----------|--------|-----------------|
| <b>Social Conditions</b>         |          |        |                 |
| Road conditions                  | 2.92     | 2.85   | .726            |
| Traffic                          | 2.41     | 1.76   | .001*           |
| Noise                            | 2.95     | 3.22   | .182            |
| Crime                            | 2.97     | 2.75   | .238            |
| <b>Environmental Conditions</b>  |          |        |                 |
| Air quality                      | 2.85     | 3.29   | .034*           |
| Water quality                    | 3.13     | 3.43   | .082*           |
| Land use                         | 3.13     | 3.40   | .161            |
| Natural environment              | 3.21     | 3.70   | .065*           |
| Litter                           | 2.59     | 2.72   | .538            |
| <b>Economic Conditions</b>       |          |        |                 |
| Historical site/buildings        | 4.32     | 4.38   | .717            |
| Lodging (hotels/motels)          | 4.18     | 4.07   | .560            |
| Outdoor recreation               | 4.18     | 4.24   | .687            |
| Job creation                     | 4.03     | 3.97   | .727            |
| Encouraging growth of businesses | 4.11     | 4.18   | .612            |
| Income                           | 3.92     | 3.75   | .325            |
| Tax revenues                     | 3.77     | 3.50   | .187            |

Note: Impact items were evaluated on 5-point Likert scale (1=extremely negative; 5=extremely positive).

\*Statistically significant difference ( $p < .10$ ).

Respondents were asked which of the items they believed they most positively and negatively impacted. For the most positive impact, 29.0% of tourists said “job creation” while the most popular response for locals was “historical sites/buildings” at 25.0%. Other percentages over 10.0% for each group included “outdoor recreation” (19.4%), “historical sites/buildings” (16.1%), and “income” (16.1%) for tourists, with locals believing “encouraging growth of businesses” (22.9%) and “job creation” (20.8%).

For negative impacts, “traffic” was the item that had the greatest percent of tourists (46.4%) and locals (63.4%) believing they most negatively impacted. Locals expressed no other items more than 10.0%, while some tourists believed the “natural environment” (14.3%) and “litter” (17.9%) were most negatively impacted

by tourism.

In assessing the mean differences between tourists and locals when the three condition categories were evaluated in aggregate, Table 3 shows tourists were statistically more likely to believe their impacts to environmental conditions were more negative than locals. Although not statistically significant, tourists held a slightly more positive view on how they impacted social and economic conditions than locals.

*Table 3*

Independent Sample T-test Mean Differences Between Tourists and Locals across Aggregates of the Impact Items

| Impact Condition                   | Tourists | Locals | <i>p</i> -value |
|------------------------------------|----------|--------|-----------------|
| Social Conditions (4 items)        | 11.22    | 10.60  | .293            |
| Environmental Conditions (5 items) | 14.89    | 16.58  | .047*           |
| Economic Conditions (7 items)      | 28.40    | 28.12  | .714            |

*Note:* Impact items were evaluated on 5-point Likert scale (1=extremely negative; 5=extremely positive).

\*Statistically significant difference ( $p < .10$ ).

In looking at how demographic characteristics may influence perceptions of impacts tourists and locals were examined across four items – gender, age, income, and education. Concerning gender, it does not appear that gender made much of difference in how the 16 impact items were evaluated with only one statistically significant difference ( $p < .10$ ) found for tourists concerning perceptions of traffic, and one for locals concerning crime. In other words, gender does not appear to play a significant role when perceptions of impacts are assessed.

For age, there were six statistically significant correlations for tourists with each of the five environmental condition items revealing a positive correlation: water quality ( $r = .318$ ), natural environment ( $r = .363$ ), air quality ( $r = .412$ ), land use ( $r = .412$ ), and litter ( $r = .455$ ). In other words, as age of the respondent increased they were more likely to say their impacts to environmental conditions were not as detrimental versus younger respondents. Crime was the sixth statistically significant correlation ( $r = .409$ ). On the other hand, age did not play a significant a role concerning locals across most of the items with only one statistically significant correlation found for the item “litter” ( $r = .299$ ). Thus, it seems age played a greater role in influencing perceptions of impacts, particularly those linked to the environment, among tourists than it did locals.

Examining income among tourists, only one statistically significant correlation was found for “land use” (.438) across the 16 items. For locals, there were five statistically significant correlations, with one found within the social condition items (crime = .343), two within environmental items (air quality = .325; water quality = .346), and two from the economic items (encouraging growth of businesses = .352; tax revenues = .343). As such, income appeared to play a greater role in perceptions of impacts among locals versus tourists (i.e., as income increased for locals they were more likely to believe they were having a more positive impact on the respective items).

In examining the role of education in perceptions of impacts, three statistically significant main effect differences between the independent and dependent variable were found for locals concerning “lodging”, “land use”, and the “natural environment”, although post-hoc analysis revealed only one statistically significant difference between education groups. For “land use” locals with a high school diploma ( $m = 3.18$ ) or bachelors degree ( $m = 2.94$ ) did not evaluate the item as positively as respondents with “some college” ( $m = 3.67$ ) or an advanced degree ( $m = 4.50$ ), although those with some college or a high school diploma were also statistically similar. For tourists, there were no statistically significant main effect differences found. In summary, education level did not seem to play a significant role in influencing how locals or tourists responded to the impact items.

Finally, demographic characteristics were used to see how they influenced response to each of the three condition impact areas. For gender, there were no statistically significant differences found for tourists or locals (i.e., gender did not play a significant role in influencing perception of the environmental, social, or economic condition impact areas). For age, among tourists, only the environmental condition impact area revealed a statistically significant correlation ( $r = .478$ ). On the other hand, only the economic impact area revealed a statistically significant correlation for locals with a positive value of .580. With regards to income, there was one statistically significant correlation found for locals across the three impact areas – economic ( $r = .336$ ). Lastly, education level did not statistically play a significant role in how respondents assessed condition impact areas. No statistically significant main effect differences were found for either respondent group.

## **Discussion**

Unlike previous studies that focused solely on resident perceptions of tourism impacts (e.g., Andereck & Valentine, 2005; Boley, McGehee, & Hammett, 2017; Boley, McGehee, Perdue, & Long, 2014; Ernoul, 2009; Francis, 2010; Frauman & Banks, 2011; Harrill, 2004; Sharma & Dyer, 2009) or solely on tourist’s

perceptions of their impacts on the destination (e.g., du Plessis, 2010; Hillery, Nancarrow, Griffin, & Syme, 2001; Moyle, Weiler, & Croy, 2013; Priskin, 2003; Rozelee, Rahman, & Omar, 2015), this study compared tourist to resident perceptions of which very few other researchers have examined (Puczko & Rátz, 2000). But unlike previous studies of resident perceptions, this study instead asked resident's to evaluate how they believe they impact the community they live in. In doing so, it provided another perspective for decision makers to consider when planning for community and tourism development.

Overall, both tourists and locals evaluated the majority of the impact items fairly similar, with only one of the nine items linked to environmental or social conditions clearly viewed negatively – traffic. Most of the other eight items were closer to a neutral response versus an extremely positive or extremely negative one. For economic conditions, both tourists and locals believed they had a fairly positive impact. Given that traditional tourism is often grounded in its economic impact to the area visited, the positive impact responses of both tourists and locals is somewhat expected.

Few statistically significant mean differences were found between tourists and locals across the 16 impact items assessed. Of the four differences found, three were linked to environmental conditions with locals believing they had more of a positive impact. For the three condition impact areas, tourists believed they had less of a negative impact than locals for the majority of social condition items, while tourists believed they had a more negative impact than locals for each of the environmental conditions items. Recognizing that there is an increasing number of tourists who identify as eco or nature-based tourists this finding may not be all that surprising.

When asked which of the items they believed they most positively and negatively impacted, tourists believed they most positively impacted “job creation” while the most popular response for locals was “historical sites/buildings.” Both tourists and locals believed they most negatively impacted “traffic,” while nearly one in five tourists believed they most negatively impacted the amount of litter. Again reflecting on the fact that traditional tourism is often premised on positive economic impacts, tourists choice of job creation is not surprising, with locals also identifying with it and the growth of businesses. On the other hand, traffic is a common concern in many coastal tourism destinations around the globe, so it is not surprising that respondents believed it to be most detrimental.

Tourists were statistically more likely to believe their impacts to environmental conditions, when evaluated in aggregate, were more negative than locals, although there were no statistically significant differences found between the groups for the social and economic condition impact areas. The finding among tourists and environmental conditions may be a product of having greater overall environmental concern than locals or simply an artifact of the small sample size

and limited period of data collection.

Overall, the findings revealed few, but distinct demographic differences between tourists and locals particularly concerning lower levels of attained education, age range, and median income. Gender did not make much of a difference in how the impact items were perceived with only one statistically significant difference found for tourists and one for locals. In other words, gender did not play a significant role when perceptions of impacts were assessed. On the other hand, for age, there were a number of significant correlations for tourists with each of the five environmental condition items revealing as age increased so did the likelihood that impacts were believed to be less detrimental. Age did not play much of a role with locals with only one positive correlation found. As such, it is more likely that age played a greater role in influencing perceptions of impacts among tourists than it did among locals. Given the increasing environmental awareness and concern among younger generations today these findings are not all that surprising, yet it is somewhat perplexing the same patterns were not found for both tourists and locals.

Examining income among tourists only one significant positive correlation was found, where for locals five positive correlations were found – crime, air and water quality, encouraging growth of businesses, and tax revenues. As such, as income increased for locals they were more likely to believe they were having a more positive impact on the respective items, although overall, only about 60.0% of respondents shared their income information so interpretation of the results for practical purposes is questionable.

In examining the role of education in perceptions of the 16 impacts, only one statistically significant difference between education groups for locals was found, with none found for tourists. Education level did not seem to play a significant role in influencing how locals or tourists evaluated the impact items although some of the levels were quite small in size (e.g., only three tourists had advanced degrees).

Regardless of being a tourist or local, gender did not seem to influence perception of the environmental, social, or economic condition impact areas. For age, among tourists, only the environmental condition impact area revealed a significant correlation, while for locals only the economic impact area revealed a significant correlation. As such, as age increased locals felt they more positively impacted economic conditions than tourists, while tourists were more likely to believe they detrimentally impacted environmental conditions to a greater degree than locals. The findings for the economic condition impact area are somewhat expected as with age often comes greater recognition that taxes, be they income, sales based or otherwise, partially go towards improving the surrounding economy.

Concerning income, there was one statistically significant correlation found for locals across the three impact areas (economic) and none for tourists. As such,

income did not seem to play a significant role concerning how the condition impact areas were evaluated for each respondent group, with similar results concerning level of education. Both of these findings may or may not be related to the small sample size within each group and for education further confounded by the four education levels respondents had to choose from.

Although the findings from this study are limited, the groundwork for a larger study is in place that could ultimately aid natural and historic resource managers in the area, as well as tourism and local government officials, in striking a balance between the needs of tourists and locals across a spectrum of environmental, social, and economic conditions. If replicated, it is expected that this study could aid other coastal tourism communities in better understanding the tourists and locals they serve, particularly if the study was to include both regular and residential tourists (i.e., second home owners who visit seasonally), as well as permanent residents, both those connected to the coastal tourism industry and those not (see Frauman & Banks, 2011). Another suggestion might be to closer examine where residents live in the coastal area (e.g., within the mass tourism activity, just outside, hinterlands) (see Weaver & Lawton, 2001). It would also be interesting to examine how tourists and locals rate each other's impacts, and see where conflicts and differences emerge. That said future research should also consider more rigorous reliability and validity testing of the perceived impact items, while also considering the use of more powerful statistical techniques to better understand the relationships between respondent groups and demographic factors and their collective role in influencing perceptions of impacts. Finally, future research should consider how to address Priskin's (2003) concern that understanding and then managing for impacts, particularly negative ones, does not always translate to a reduction in impacts, be they primarily due to tourists or locals.

Other measurement techniques should be considered to complement the impact assessment used in this study. Importance-Performance analysis (IPA) (Martilla and James, 1977) is a simple framework that "allows researchers to visually identify gaps between stakeholders' perceptions of the importance of a specific attribute and the actual performance of a firm or destination on managing that attribute" (Boley, et al., 2017, p. 66). Taken together, IPA and a refined measurement impact assessment tool like the one used in this study could provide a bounty of useful information to aid decision makers and residents of coastal destination communities. As Frauman and Banks (2011) suggested "local communities must be willing partners in the (tourism) process and their attitudes toward the industry and perceptions of tourism's impacts on their way of life must be continually assessed" (p. 137).

At a minimum, this study further added to the existing literature on perceptions of tourism impacts and sustainable tourism development, while also including a measure that is not generally assessed, namely, how residents believe

they impact the area they live in as it pertains to tourism. The results point to how research can be used to underpin tourism management strategies for coastal destinations. It is hoped this study will encourage other researchers to examine and compare perceptions of tourists and residents, thereby adding to a seemingly limited area of literature and understanding.

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