

The Value of Biscayne Bay to Local Recreational Businesses

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In cooperation with Friends of Biscayne Bay
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Introduction: Background

- Biscayne Bay is a major attraction for residents, visitors, and businesses
- In 2000, the Biscayne Bay Partnership Initiative (BBPI) was created to make recommendations for the protection, improvement, and enhancement of the bay's resources, and its social, economic and natural values, with its ecological health as a priority (Economic Study, 2005)
- One outcome of the BBPI recommendations was the *Biscayne Bay Economic Study of 2005*

Biscayne Bay Economic Study of 2005

- Assessed the current and historic uses and economic contribution of the bay in order to evaluate the impact of bay management on the local economy



Photo credit: Biscayne Bay Aquatic Preserves

- A major contributor to Biscayne Bay's economic worth comes from the recreational industry surrounding the bay
 - In 2004, residents and visitors spent 65 million person-days participating in recreation activities on Biscayne Bay and on an average day 179,000 people participated in recreation activities on the bay (Economic Study, 2005)

Biscayne Bay Economic Study of 2005

- There are different methods that can be used to evaluate the economic impacts of recreational uses of public lands
- According to the National Park Service, the most common methods for determining economic impact of recreational activities is through visitor spending surveys, analysis of secondary data from government economic statistics, economic base models, input-output models, and multipliers (Stynes, 2005)

Biscayne Bay Economic Study of 2005

- Data collected through surveys, interviews and publications
 - Estimated the number of person-days by bay-related recreation activity and bay-related recreation expenditures by category and location of purchase (Economic Study, 2005)
- The expenditure and sales data were input into the IMPLAN regional economic input-output model to obtain estimates of the direct, indirect and induced output, income, employment and tax revenues generated
 - Resulting in the economic contribution of Biscayne Bay

Statement of Problem

- There has not been a follow up study or any updates to the *Biscayne Bay Economic Study of 2005*
- The *Biscayne Bay Economic Study of 2005* did not survey businesses to get their perspective on the value of the bay
- The Biscayne Bay Aquatic Preserves (BBAP)
 - Goals include improving management effectiveness through a process based on sound science, consistent evaluation, and continual reassessment (BBAP Mgt Plan, 2013)
- Need continual reassessment of Biscayne Bay's economic contribution



Photo credit: Biscayne Bay Aquatic Preserves

Purpose of Study

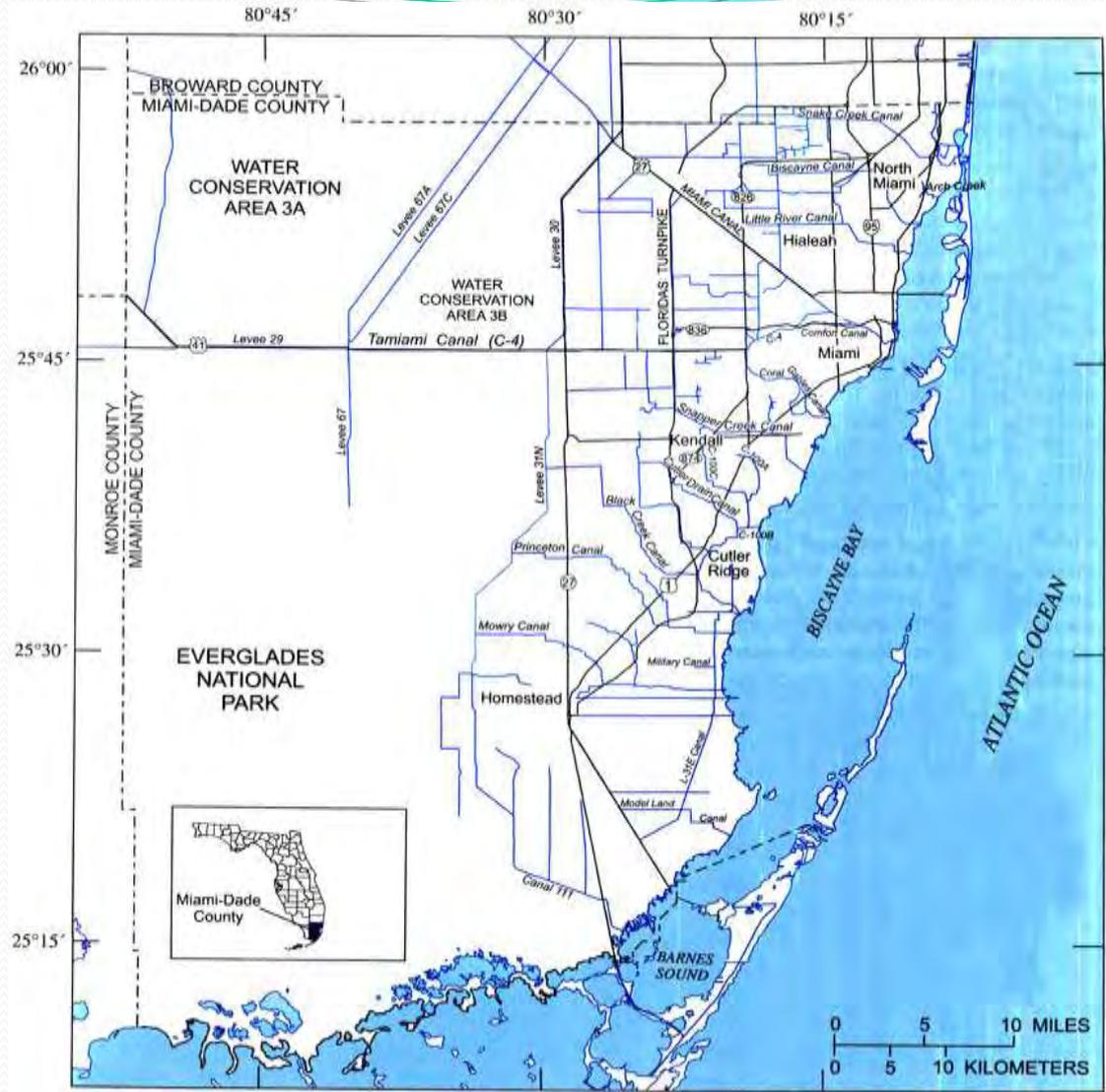
- To place a value on Biscayne Bay from the recreational businesses' perspectives
- To determine how much the dollar values from Biscayne Bay recreation have changed from 2004 to 2012
- Build upon the previous economic study conducted in 2005, while looking at additional information that the 2005 study did not address

Methods and Materials

- Activity 1: Survey of local recreational businesses
 - Objective: to determine how important Biscayne Bay is to local recreational businesses and how much the business owners feel the bay contributes to the success of their business, in terms of location and aesthetics
- Activity 2: determine the present dollar value of Biscayne Bay-related recreation
 - Objective: to determine how the economic value of the Biscayne Bay-related recreation has changed since 2004.

Study Area

- The main focus will be the businesses surrounding the northern portion of the bay
 - much of the southwestern part of the bay is bordered by unincorporated Miami-Dade County



Map of Miami-Dade County and Biscayne Bay (source: U. S. Geological Survey Open-File Report number 2004-1346)

Activity 1: Survey

- Telephone/email survey of 15 businesses from each of the 7 major industries within the recreational sector
- The 7 industries include:
 - boat building and repairing
 - transportation- water
 - food stores
 - eating and drinking establishments
 - other retail stores
 - hotels and lodging
 - amusement and recreation services



Photo credit: Biscayne National Park

Survey of Local Businesses

1. How would you rank the importance of Biscayne Bay to the success of your business, on a scale from 1 to 5? 1= not important, 2= a little important, 3= important, 4= extremely important, 5= most important
2. How successful do you believe your business would be, comparatively, if it were NOT located on Biscayne Bay, on a scale from 1 to 5? 1= not successful at all, 2= a lot less successful, 3= somewhat successful, 4= just as successful, 5= more successful
3. How would you rank the importance of aesthetic qualities of the bay to the success of your business, on a scale of 1 to 5? 1= not important, 2= a little important, 3= important, 4= extremely important, 5= most important
4. What percentage of your sales would you attribute to the bay?
a) 0-20% b) 20-40% c) 40-60% d) 60-80% e) 80-100%
5. What do you think is the most important factor contributing to the success of your business?
a) Location
b) Quality of services provided
c) Staff
d) Customer reviews/recommendations
e) Advertising

Survey of Local Businesses

6. Do you highlight your location on Biscayne Bay as a marketing tool when advertising for your business? Yes or No
7. On a scale from 1 to 5, how busy is your business on an average week day? 1= not busy, 2= a little busy, 3= busy, 4= very busy, 5= most busy
8. On a scale from 1 to 5, how busy is your business on an average weekend day? 1= not busy, 2= a little busy, 3= busy, 4= very busy, 5= most busy
9. What is the approximate dollar amount of your weekly/monthly/yearly sales?
10. Approximately how many customers do you have each week/month/year?

Activity 2: Value of Biscayne Bay-related Recreation



- Data gathered on the number of visitors at each of the four parks surrounding Biscayne Bay
 - Biscayne National Park, Barnacle Historic State Park, Oleta River State Park and Bill Baggs Cape Florida State Park

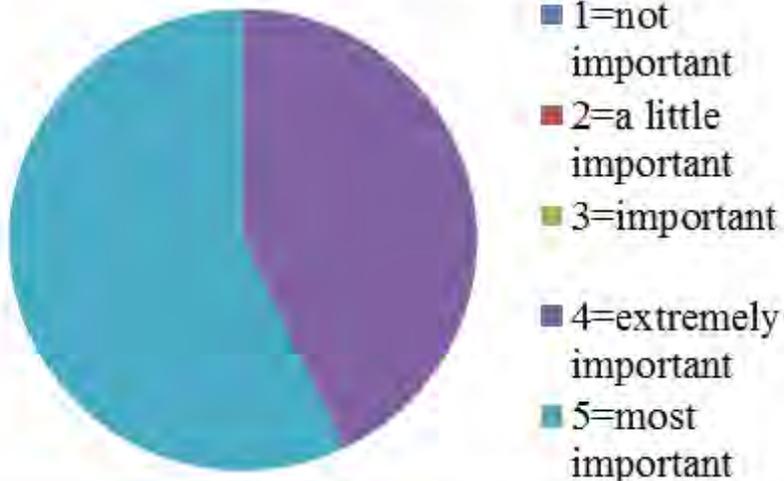
- Dollar amounts calculated in the *Biscayne Bay Economic Study of 2005* for expenditures of the visitors can be multiplied by the percent change in number of visitors to the four parks from 2004 to 2012
 - Dollar amount of visitor expenditure based on today's visiting numbers
 - Converted into today's dollars using multiplier from the Florida Bureau of Commerce



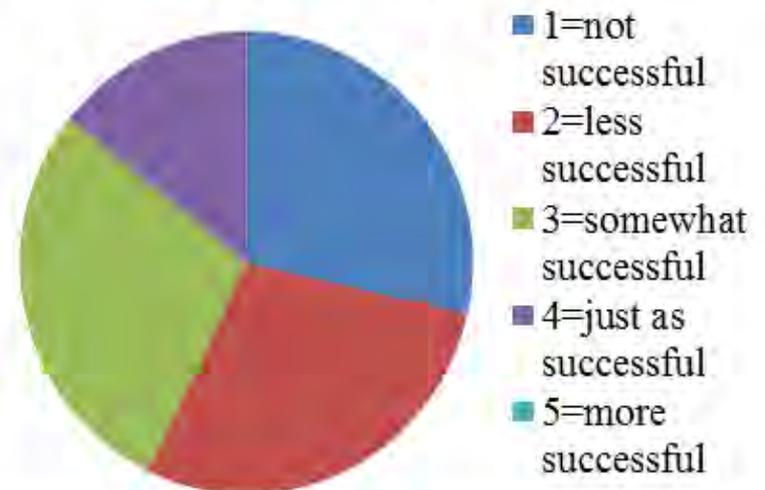
Results: Activity 1

- Question 1: How would you rank the importance of Biscayne Bay to the success of your business, on a scale from 1 to 5?
- Question 2: How successful do you believe your business would be, comparatively, if it were NOT located on Biscayne Bay, on a scale from 1 to 5?

Question #1



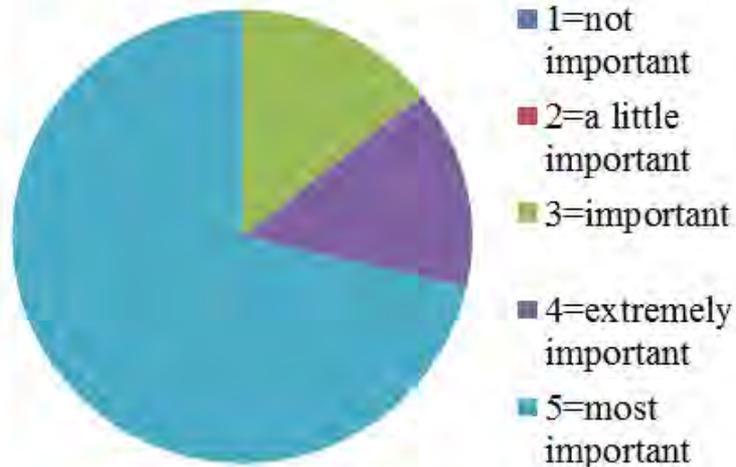
Question #2



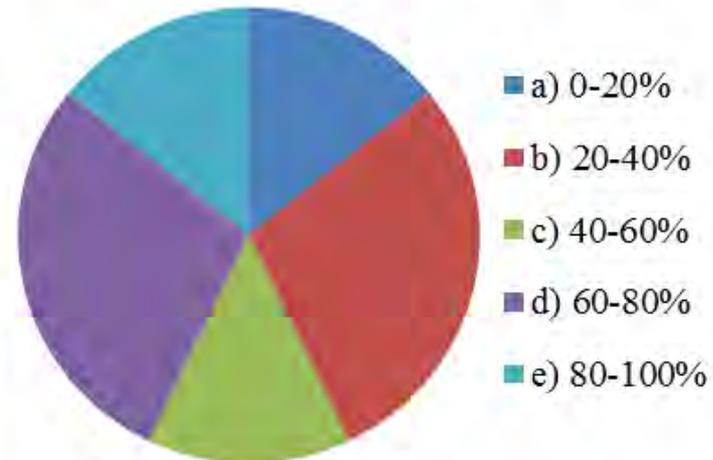
Results: Activity 1

- Question 3: How would you rank the importance of aesthetic qualities of the bay to the success of your business, on a scale of 1 to 5?”
- Question 4: What percent of your sales would you attribute to the bay?

Question #3



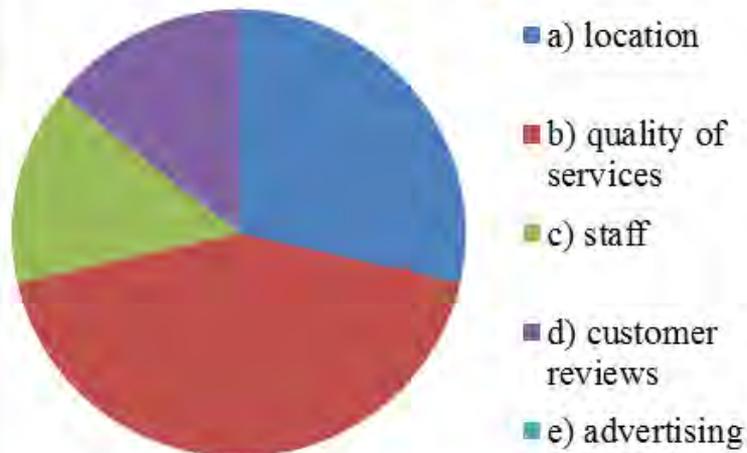
Question #4



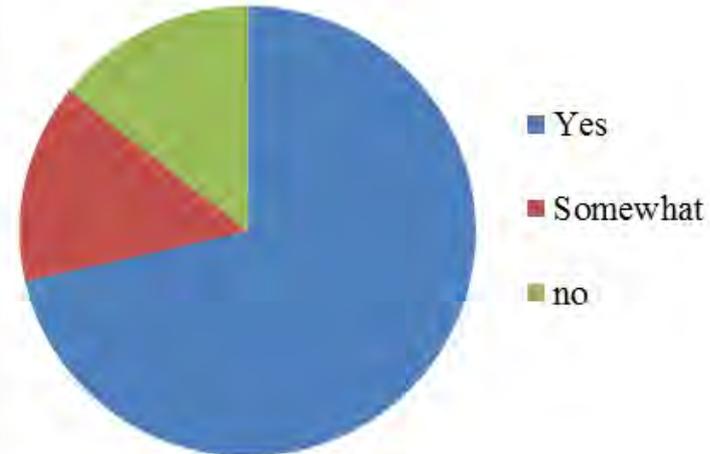
Results: Activity 1

- Question 5: What do you think is the most important factor contributing to the success of your business?
- Question 6: Do you highlight your location on Biscayne Bay as a marketing tool when advertising for your business?

Question #5



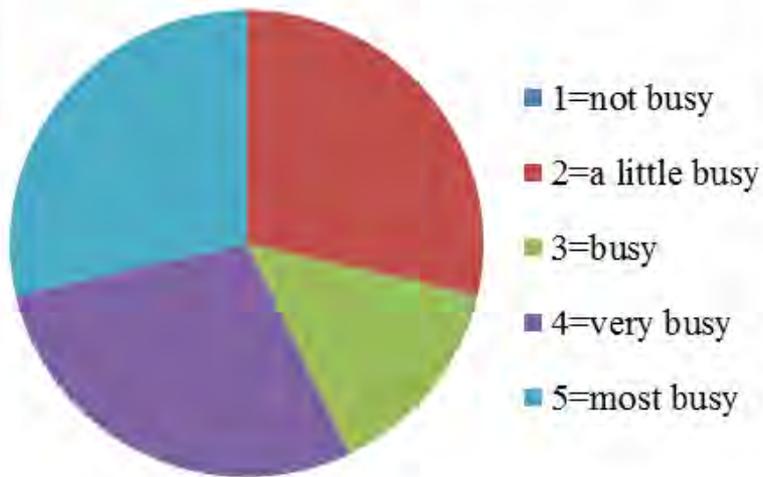
Question #6



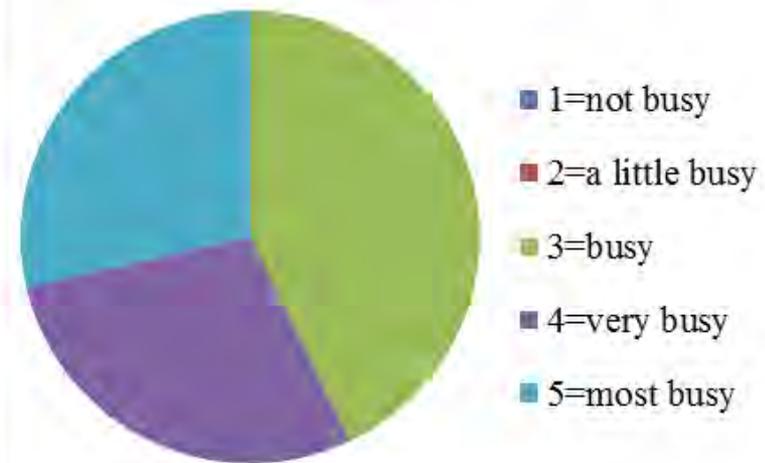
Results: Activity 1

- Question 7: On a scale from 1 to 5, how busy is your business on an average week day?
- Question 8: on a scale from 1 to 5, how busy is your business on an average weekend day?

Question #7



Question #8



Results: Activity 1

- Questions 9 and 10 had very few responses and were not included due to the private information which businesses did not wish to disclose for the survey
 - 9. What is the approximate dollar amount of your weekly/monthly/yearly sales?
 - 10. Approximately how many customers do you have each week/month/year?



Results: Activity 2

- Attendance At State and National Parks Along Biscayne Bay

Year	Biscayne National Park	Barnacle Historic State Park	Oleta River State Park	Bill Baggs Cape Florida State Park	Total	Total % change
2003	490,031	25,208	269,097	842,937	1,627,273	N/A
2012	480,379	57,157	430,662	614,282	1,582,480	-3%

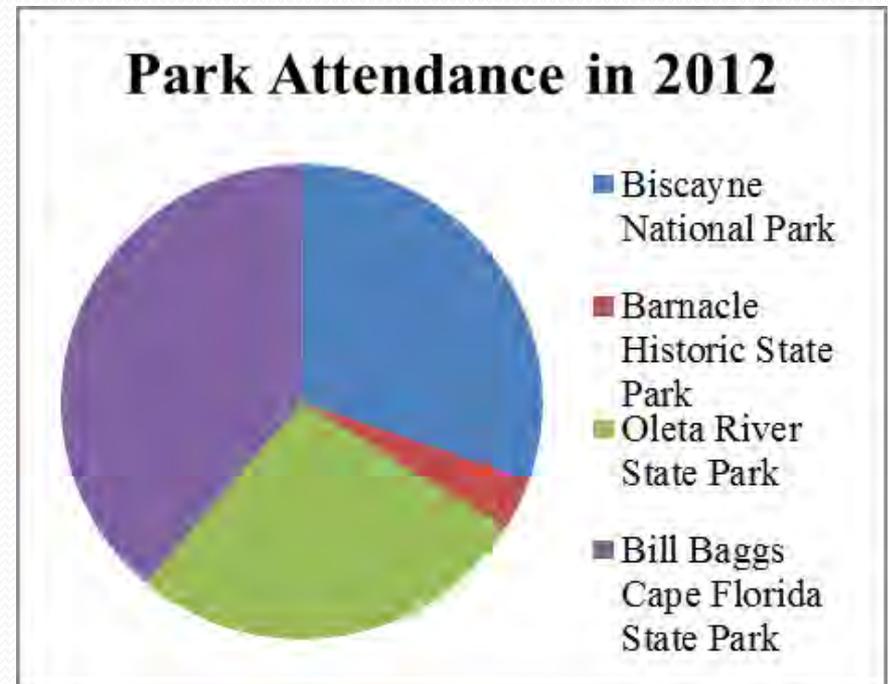
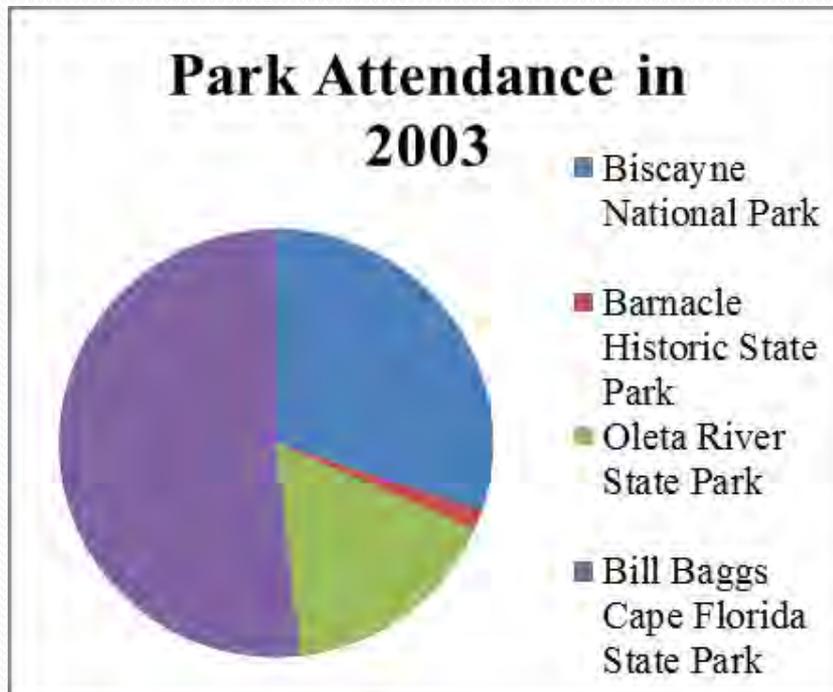
Results: Activity 2

- Percent Change in Attendance at Each Park along Biscayne Bay

Park Name	Attendance in 2003	Attendance in 2012	% Change
Biscayne National Park	490,031	480,379	-2%
Barnacle Historic State Park	25,208	57,157	126%
Oleta River State Park	269,097	430,662	60%
Bill Baggs Cape Florida State Park	842,937	614,282	-27%

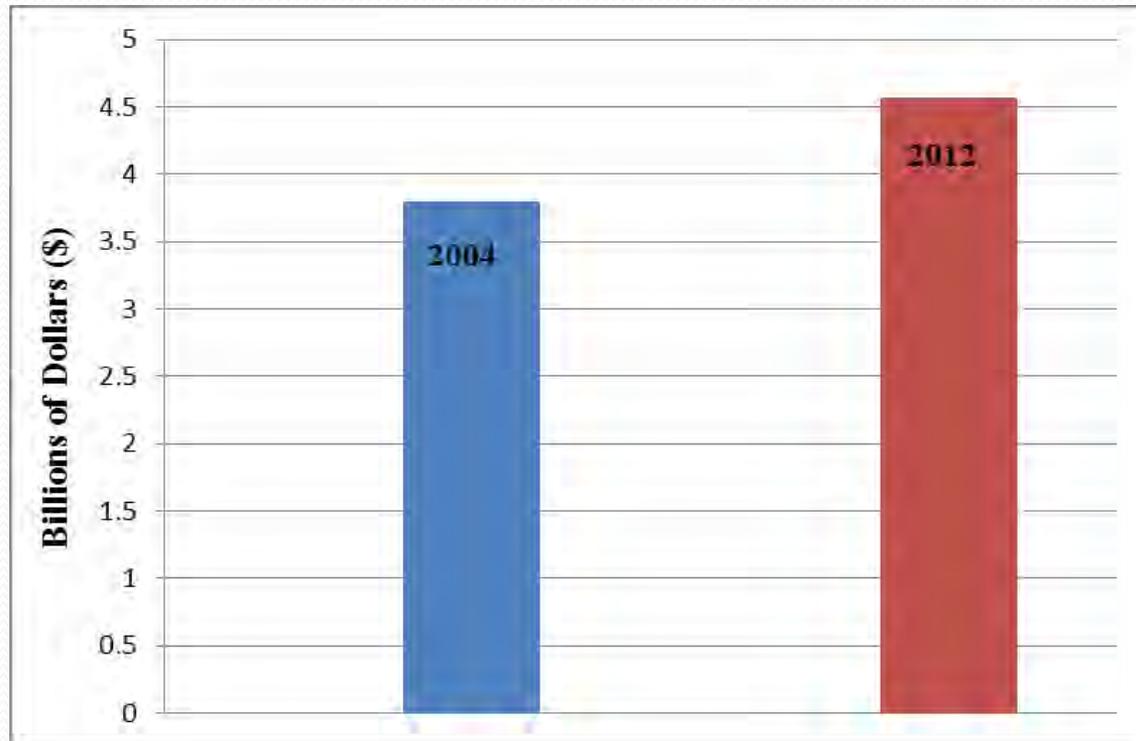
Results: Activity 2

- Park attendance in 2003 and 2012



Results: Activity 2

- Visitor Expenditure in 2004 and 2012



Discussion

- Results of the survey showed a strong dependence on Biscayne Bay
- Main survey questions that place specific values on Biscayne Bay: questions 1, 3, and 6
 - 57% said Biscayne Bay is most important to the success of local businesses surveyed
 - 71% said aesthetic qualities of the bay are most important to the success of local businesses
 - 71% response that location on Biscayne Bay is highlighted when advertising
- Based on the average responses, the importance rating is a 4.57 out of 5
 - using the scale from the first question: 1= not important, 2= a little important, 3= important, 4= extremely important, 5= most important

Discussion

- The type of recreational business that values the bay most/relies heavier on location and aesthetics: amusement and recreation services
 - due to the heavy reliance on the quality of the bay



- According to Miami-Dade EcoAdventures, “people want to see the bay clean and in its natural state—if the bay were polluted and not well managed, there would be far less attraction for people wishing to rent kayaks and take tours. The bay is everything, it constitutes 70% of our tours.”

Photo credit: Biscayne National Park



Discussion

- Food stores and other retail stores were least reliant on the bay
 - Likely due to a limited connection of the merchandise to Biscayne Bay
 - Also believed they would be just as successful if not located near the bay, and did not highlight their location on Biscayne Bay as a marketing tool

Discussion

- The current value of Biscayne Bay-related recreation is \$4,568,942,376
- 27% decrease in attendance at Bill Baggs Cape Florida State Park.
 - Bill Baggs Cape Florida State Park has largest amount of attendance
 - 39% of the total attendance at all four parks surrounding Biscayne Bay
- 60% increase in attendance at Oleta River State park



Photo credit: Bill Baggs Cape Florida State Park



Photo credit: Oleta River State Park

Discussion

- Increase in park entrance fees at Bill Baggs Cape Florida State Park
 - Florida Department of Environmental Protection Secretary in 2009, “the fee increase was needed to allow park visitors to pay more of the cost for operating state parks” (Florida Environments, 2010)
 - The down economy
- Increase at Oleta River State Park
 - “there haven’t really been any big changes at the park over the past 9 years to account for the increase, most likely, more people have discovered Oleta River State Park is a nice family get-a-way to enjoy nature.”

Discussion



- Miami-Dade County's economy is highly dependent on international trade and tourism
 - both rely heavily on the use of Biscayne Bay
- Tourism and many of the tourist attractions in Miami fall under the recreational industry
- Survey results and current value of Biscayne Bay-related recreation show Biscayne Bay remains a big contributor to Miami-Dade County's economy
 - extremely important asset to the success of local businesses

Recommendations: Funding

- How they allocate resources and money to managing the bay
 - gain more funding to better Biscayne Bay in terms of management and preservation initiatives
 - water quality and aesthetics of the bay are extremely important to businesses that surround the bay
- Biscayne Bay should receive careful considerations when budgeting for management of the bay



Recommendations: Management Plan

- Goal of the Biscayne Bay Aquatic Preserves to encourage sustainable use and foster active stewardship by engaging local communities in the protection of the bay (BBAP Mgt Plan, 2013)
- Engaging businesses that rent boating equipment, kayaks, and give tours can foster active stewardship
- Eating and drinking establishments, hotels and lodging also rely heavily on Biscayne Bay
 - Engage these other industries in being active stewards of Biscayne Bay to spread awareness and help promote good environmental practices

Recommendations: Management Plan

- Oleta River State Park's attendance increased by 60% since 2003
 - Oleta River feeds into the Biscayne Bay Aquatic Preserves at the north end of the bay
 - Ensure the Oleta River State Park and other parks tied to Biscayne Bay receive proper funding and management



Photo credit: Oleta River State Park

Recommendations: Future Studies

- More funding for a broader study to benefit the Florida Department of Environmental Protection
- A study of more businesses and more information on the revenues of these businesses
- Studies similar to this one should be conducted outside of the recreational sector
 - More studies would give a better perspective on how the recreational sector relies on Biscayne Bay as compared to other sectors

Acknowledgements

- Friends of Biscayne Bay
- Biscayne Bay Aquatic Preserves
 - Susan Leser
 - Pamela Sweeney
- Committee members
 - Dr. Daniel Suman
 - Maria Estevanez
- Grace Johns, Hazen and Sawyer, P.C.
- All of the businesses who participated in the survey

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