

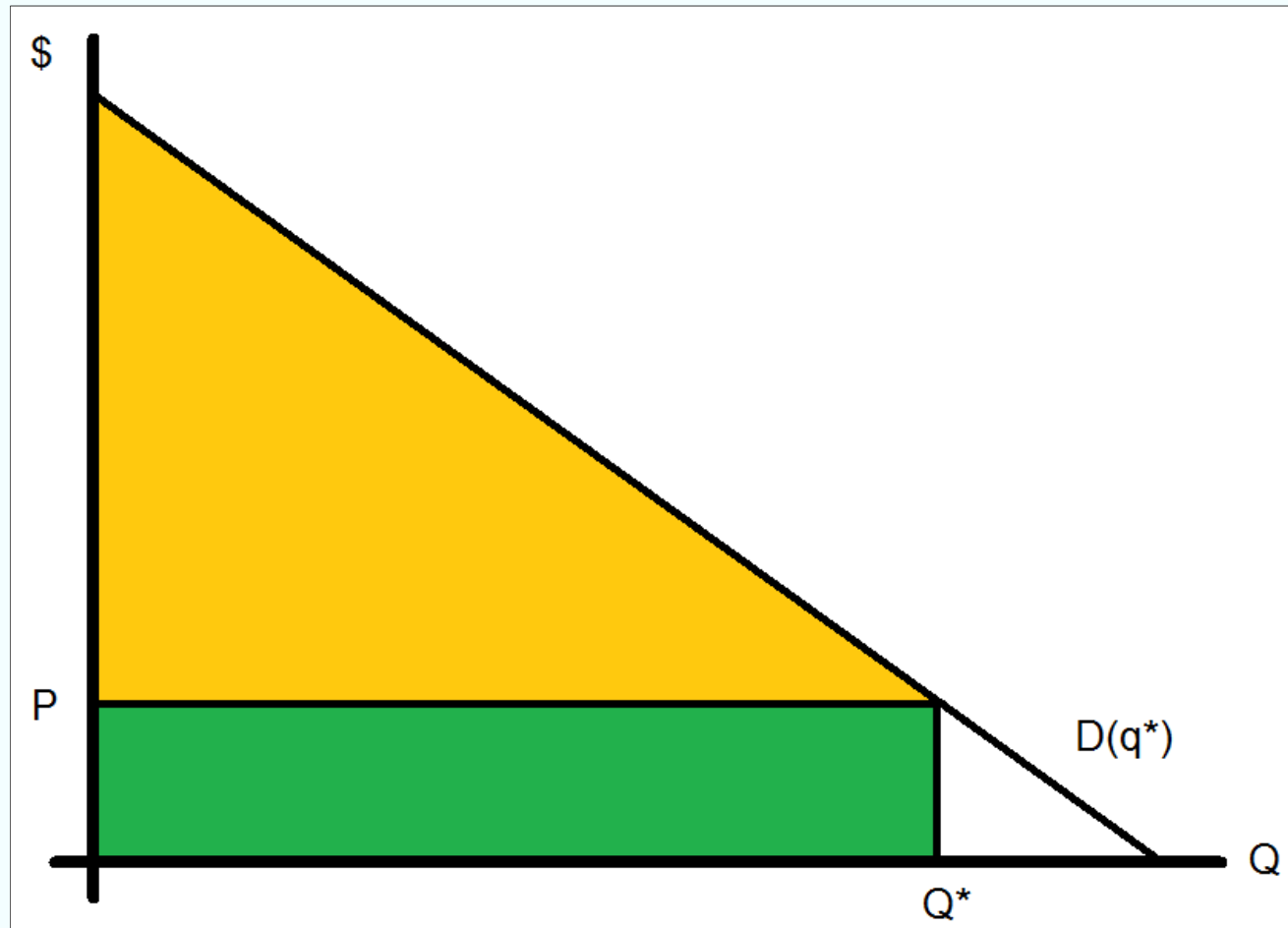
Economic Value of Coastal Tourism

John Whitehead
Department of Economics
Appalachian State University
Boone, NC



"Coastal Economics" Session, North Carolina's Coastal Conference, April 4, 2017

Benefits and impacts



Coastal tourism profile

- 23% of NC visitors travel to the 28 county coastal region
 - 93% vacation trips
 - 84% overnight trips
 - 65% beach trips
- 12.4 million person-trips
- NC (42%), VA (18%), PA (5%), OH (5%), MD (4%)

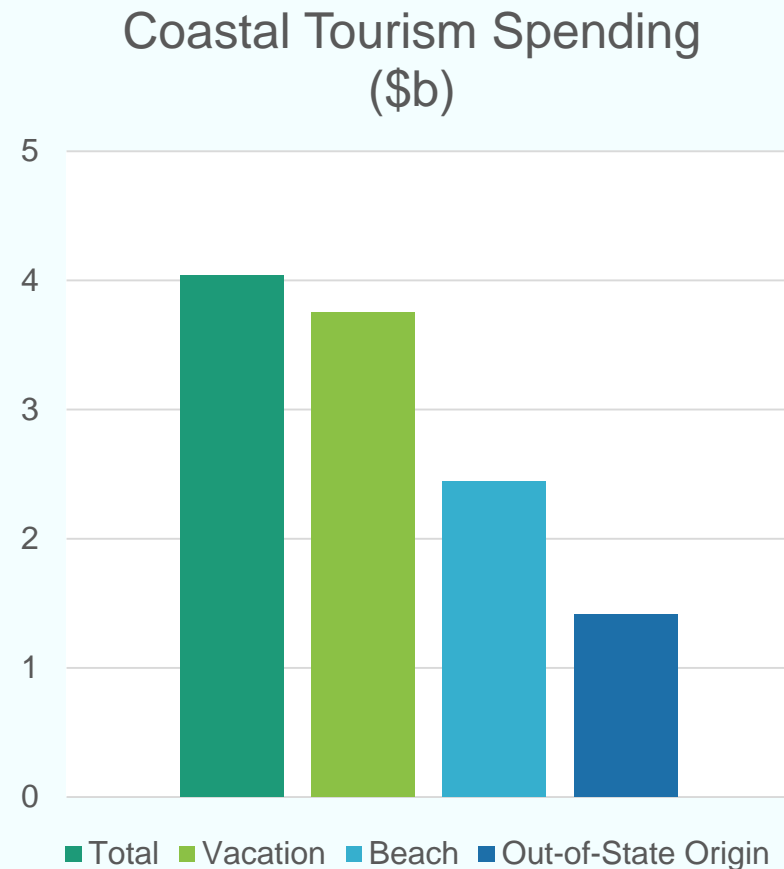
2015 North Carolina Regional Travel Summary

A publication of Visit North Carolina
A Unit of the Economic Development Partnership of North Carolina




Coastal tourism expenditures

- Party size = 2.5
- 5 million household trips
- Household trip expenditures = \$814
 - Day trip = \$161
 - Overnight = \$968
- \$4 billion
 - ~18% of 8 ocean county's GDP, 42k jobs



County level tourism expenditures



The screenshot shows a web browser window with the URL <https://partners.visitnc.com/economic-impact-studies>. The page features the Visit North Carolina logo (NC with a tree) and a search bar with a "GO" button. The main heading is "ECONOMIC IMPACT STUDIES". Below this, a paragraph states: "Visit North Carolina evaluates the economic impact of travel and tourism in North Carolina at two different levels: TEIM and TSA methodology. See below for details on both methods." A sub-heading "Impact of Visitor Spending" is followed by a paragraph: "The first level, narrow in scope, calculates the impact based on visitor expenditures using the Travel Economic Impact Model (TEIM). On an annual basis, the Research Department of the U.S. Travel Association prepares direct visitor spending estimates for all 100 North Carolina counties, as well as county level employment, payroll and tax revenues as a result of direct visitor spending." At the bottom, there is a prompt: "Use the below drop down to view statewide county statistics for North Carolina:" followed by three interactive elements: a dropdown menu labeled "-Select Year-", another dropdown menu labeled "-Sort by-", and a button labeled "Get Statistics".

NC tourism expenditure data

- n = 2500
 - 100 NC counties
 - 25 years (1991-2015)
- **8 ocean counties**
- 12 counties with cities > 70k
- 9 Blue Ridge Parkway counties
- 3 counties with ski resorts
- 2 counties with top 15 public golf courses
- 1 county with NC Zoo



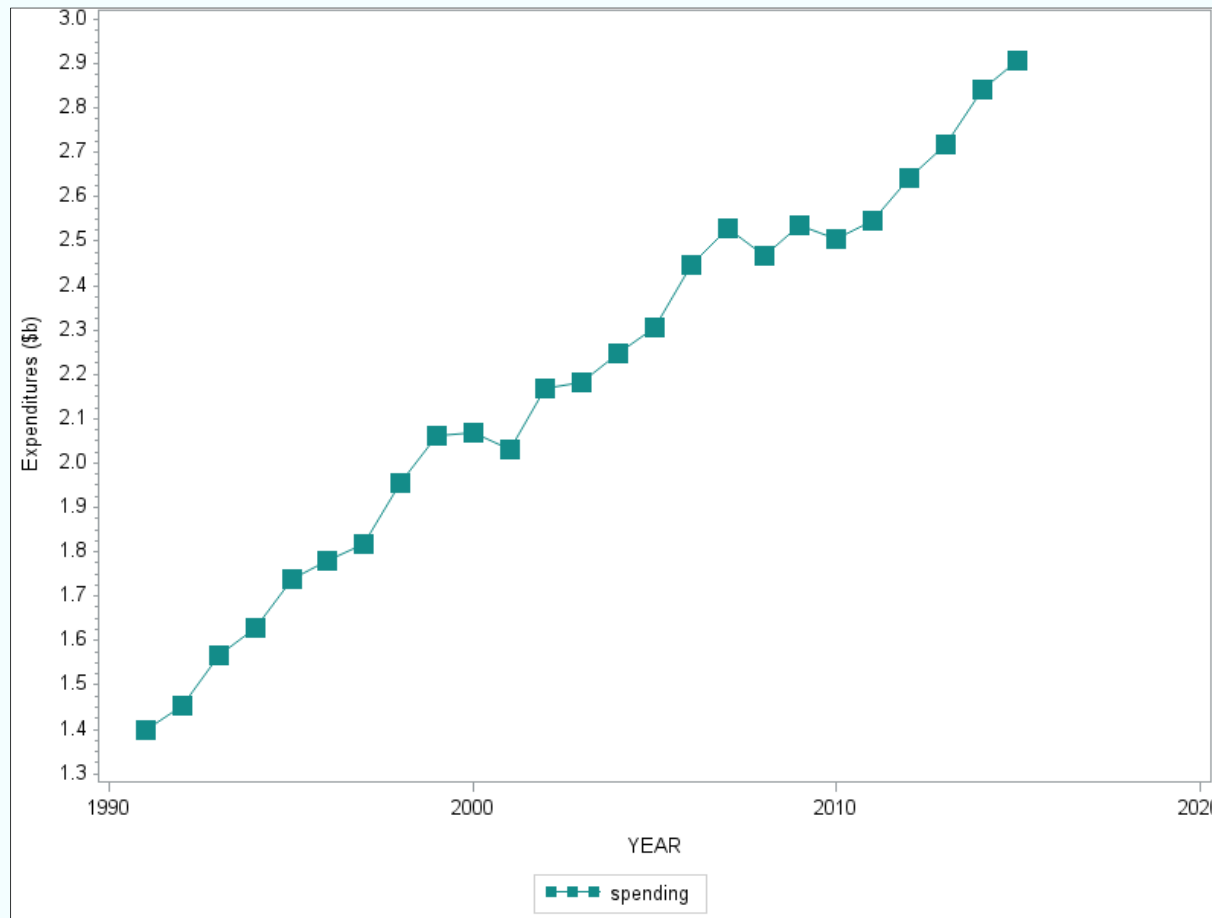
Source: Coastal Review Online

Tourist spending in 8 ocean counties is about 96% higher than similar counties in the rest of the state.

Dependent variable = ln(expenditures)

	Coefficient	P-value
Intercept	-4.49	<0.0001
City = 1	2.39	<0.0001
Parkway = 1	0.68	0.078
Other (ski, golf, zoo) = 1	0.93	0.047
Ocean = 1	0.96	0.013
Ln(GDP)	0.85	<0.001

Economic threats (recessions)

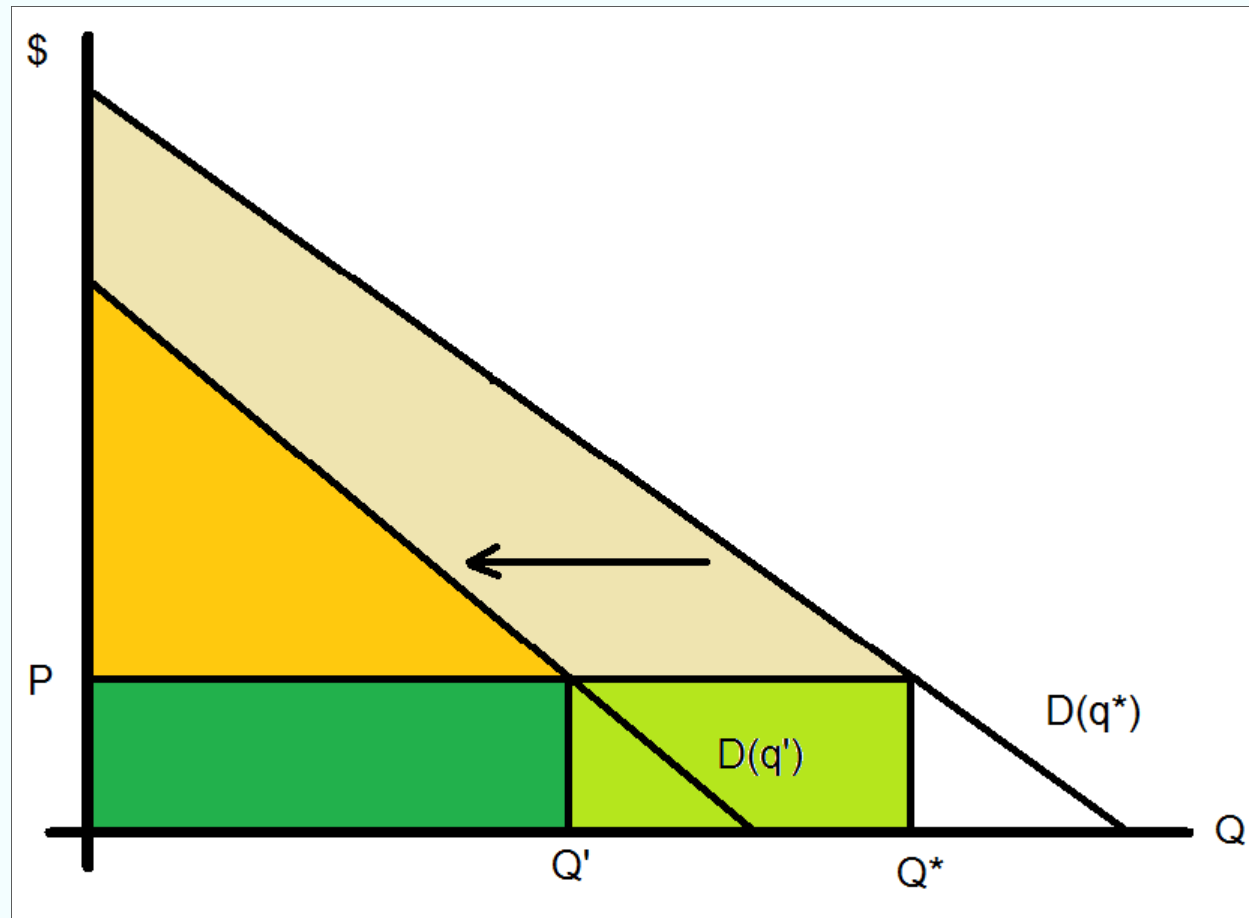


Coastal and marine threats

- Storms
- Erosion
- Flooding
- Shoaling
- Pollution
- Overfishing
- Inlet closure
- Sea level rise
- et cetera



Coastal and marine threats

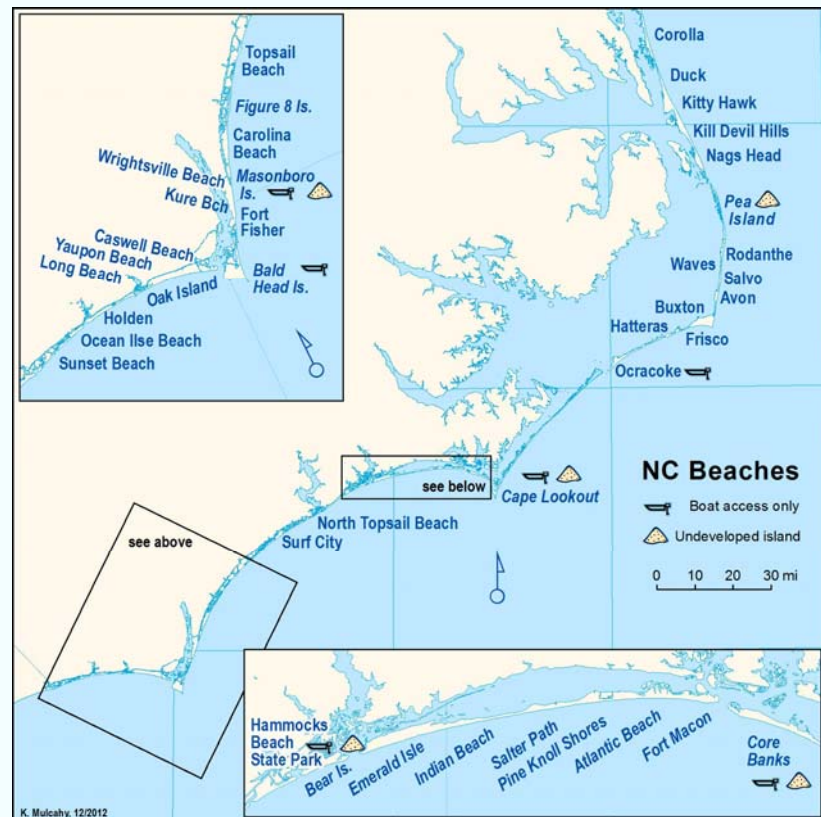


“Economic Values of Coastal Erosion Management”

w/Craig Landry (ECU/Uga)



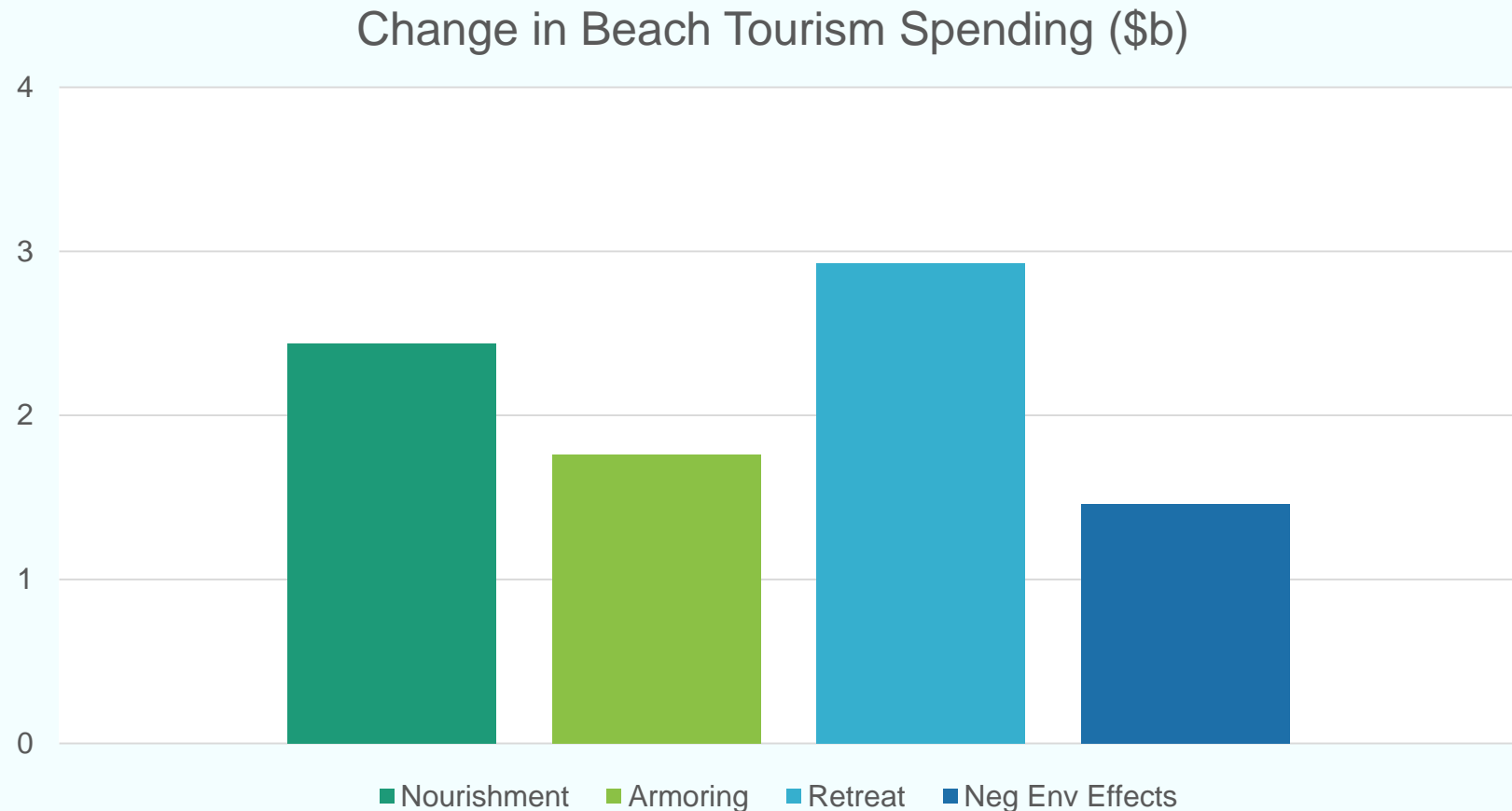
- 2013 Survey of NC beach users (n=1000)
- Support for management options
 - Nourishment 67%
 - Armoring 58%
 - Retreat 71%



Effects on Beach Trip Demand

Scenario	Annual Trips	w/Negative Environmental Effects
Baseline	3.12	
Nourishment	2.99	2.01
Armoring	2.25	1.82
Retreat	3.65	2.41

Erosion management effects on beach tourism spending



“AIWW Economic Impacts and Benefits Study”



- 2013 Survey of NC recreational boaters (n=900)
- 1 in 5 boaters are from out of state
- Expenditures per vessel
 - NC residents = \$514
 - Non-residents = \$1718

Report to the North Carolina Sea Grant Program, the North Carolina Department of Environment and Natural Resources (NCDENR) and the North Carolina Beach, Inlet and Waterway Association (NCBIWA) on the Economic Impacts and Economic Benefits of Recreational Boating Along the Atlantic Intracoastal Waterway (AIWW) in North Carolina



Prepared by:

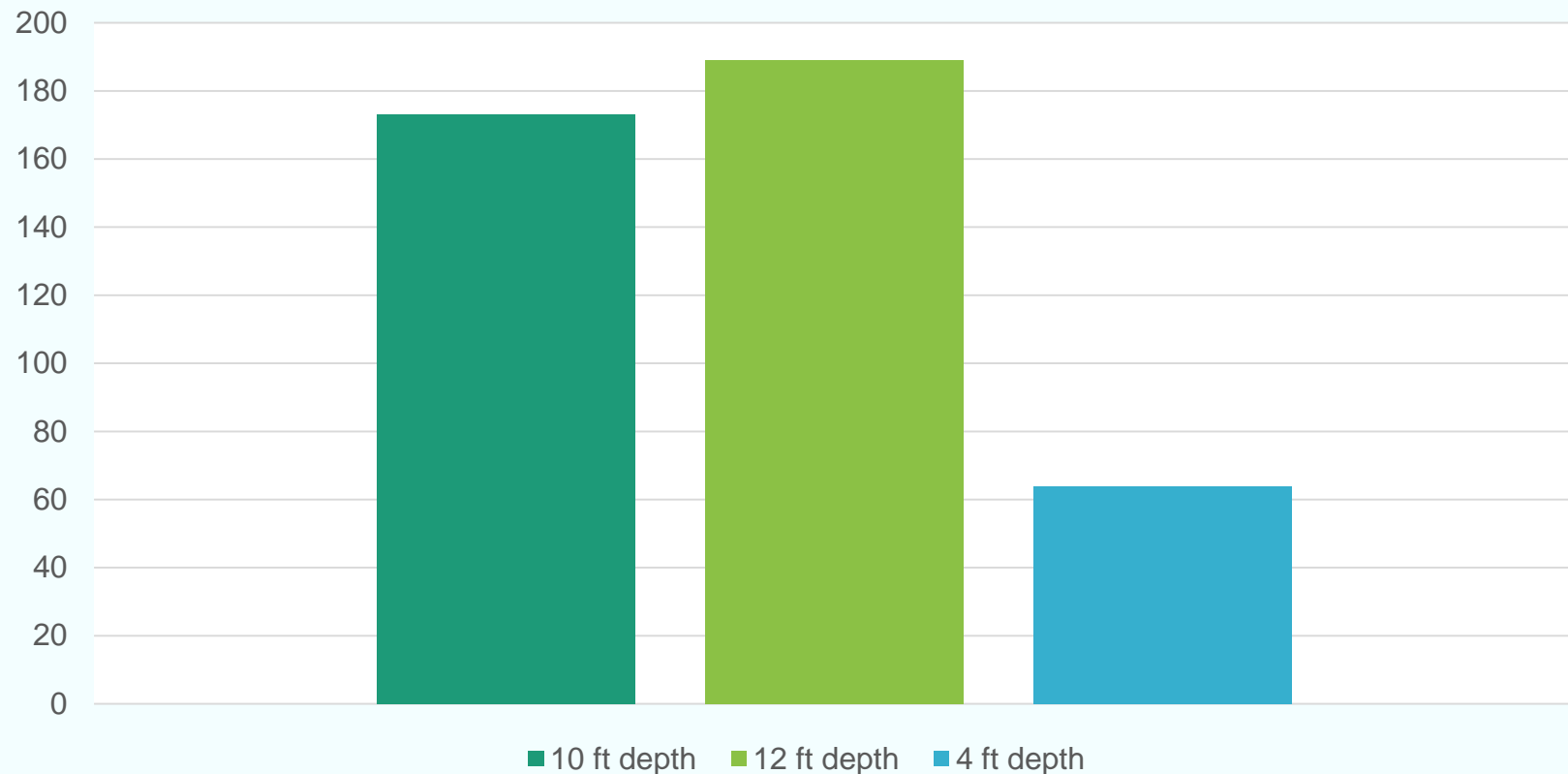
Dr. Jim Herstine, Ph.D.—University of North Carolina Wilmington
Dr. Chris Dumas, Ph.D.—University of North Carolina Wilmington
Dr. John Whitehead, Ph.D.—Appalachian State University
January 26, 2007

Effects on Recreation Boat Trip Demand

Dredging Scenario	Annual Trips
10 foot depth	42
12 foot depth	46
4 foot depth	23

Effects of dredging on boat tourism spending

Change in Boat Trip Tourism Spending (\$m)



“Impacts and Value of the NC For-Hire Fleet”



- 750 vessels
- 70,000 trips
- 431,000 passengers
- 1500 captain and crew jobs
- \$380 million in spending

Economic Impacts and Recreation Value of the North Carolina For-Hire Fishing Fleet

FINAL REPORT

Christopher F. Dumas, Ph.D.
Dept. of Economics and Finance
University of North Carolina Wilmington

John C. Whitehead, Ph.D.
Dept. of Economics
Appalachian State University

Craig E. Landry, Ph.D.
Dept. of Economics
East Carolina University

James H. Herstine, Ph.D.
Dept. of Health and Applied Human Sciences
University of North Carolina Wilmington

April 29, 2009

North Carolina Sea Grant
Fishery Resource Grant (FRG) Report 07-FEG-05

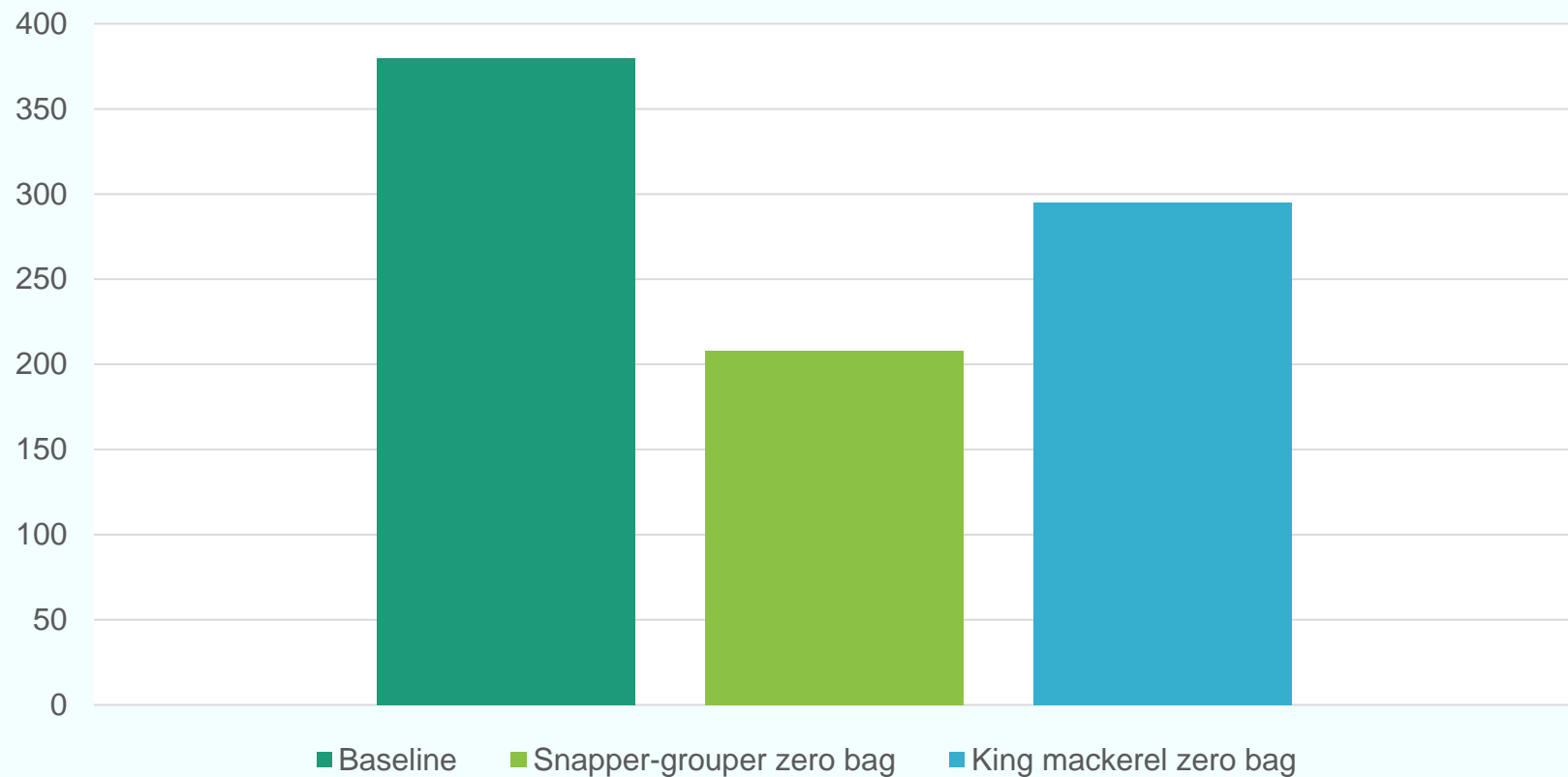


Effects of overfishing that lead to zero bag limits

Zero bag scenario	Decrease in Charter trips
Snapper-grouper	45%
King mackerel	22%

Effects of overfishing that lead to zero bag limits

Change in Charter Boat Fishing Trip Spending (\$m)



Conclusions

- The tourism sector is a major component of the coastal economy in North Carolina.
- There are a number of human and natural threats to coastal and marine environments.
- Negative environmental effects reduce the demand for coastal tourism.
- A decrease in coastal tourism demand will lead to negative economic impacts (and benefits).

Interdisciplinary Research Recommendations

- Scientists determine the number and extent of the coastal and marine threats
 - Hazards
 - Ecosystems
 - Fisheries
- Economists monetize the impact
- Benefit-cost analysis for coastal and marine resources policy

