

The Contribution of Florida's Coasts and Oceans to our National, Gulf of Mexico and Florida Economies

Oceans Day
March 22, 2011
Florida Capitol

James C. Cato
Professor emeritus
University of Florida

FLORIDA OCEANS AND COASTAL
COUNCIL

The logo for the Florida Oceans and Coastal Council is located at the bottom center of the slide. It consists of a white rectangular box with a blue wave-like graphic at the bottom. The text "FLORIDA OCEANS AND COASTAL COUNCIL" is printed in blue within the white area of the box.

Key Points of Discussion

- Florida Compared to the US
- The Gulf of Mexico
 - Coastal Economy
 - Ocean Economy
- Florida
 - Coastal Economy
 - Ocean Economy

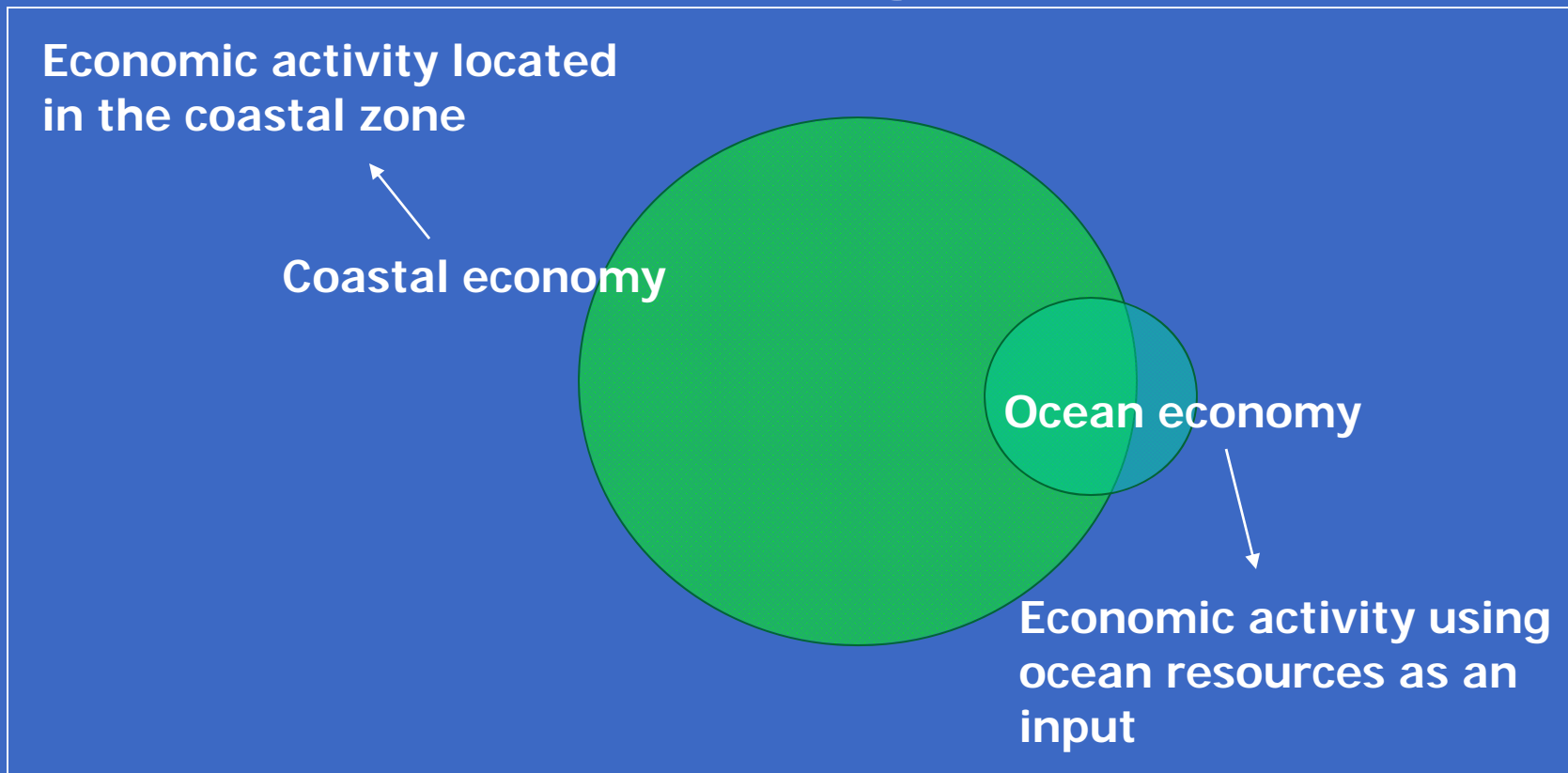
Employment and wages, 2008

Region	Employment (millions)	% of Total	Wages (billions \$)	% of Total
US	134.8	100	6,142	100
All Coastal States	109.1	81	5,104	83
Florida	7.7	7	311	5
Florida Coastal Counties	5.6	4	186	3

Percentage change in employment and wages from 2006 to 2008

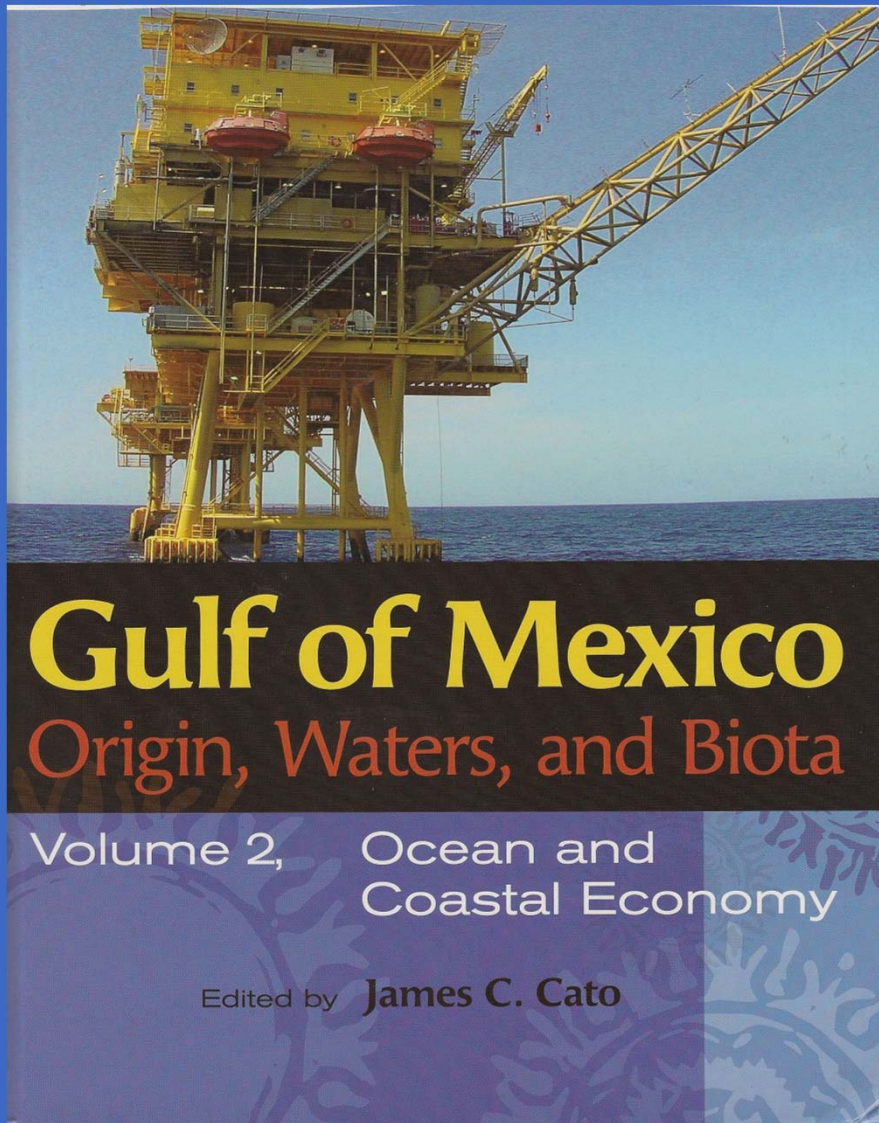
Region	Employment % change	Wages % change
US	.7	2.0
All Coastal States	2.5	4.5
Florida	.5	.8
Florida Coastal Counties	-3.1	-3.9

The Coastal and Ocean economies are not the same thing



The complete Ocean and Coastal economy

- Sectors defined by the Bureau of Labor Statistics' North American Industrial Classification System (6 sectors; 23 industry groups)
- Lots of supplemental data (for example, fishing sector)
- Non-market values as derived from various studies and data sources



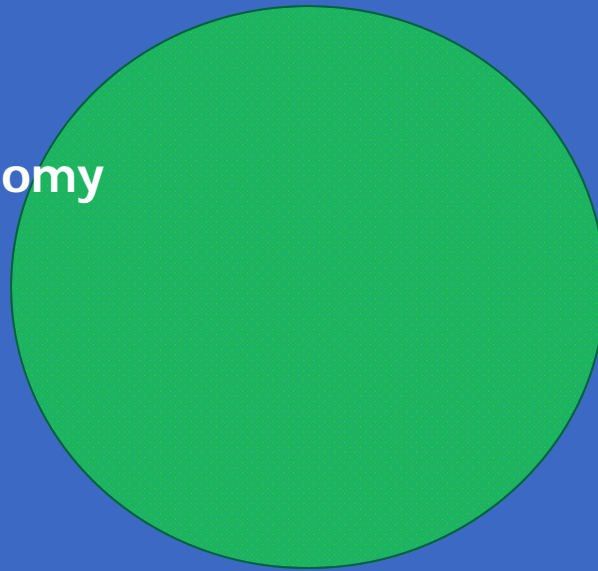
Chapter 4: The changing
coastal and ocean economies
of the US Gulf of Mexico

Judith Kildow, Charles Colgan
and Linwood Pendleton

Gulf of Mexico

Economic activity located
in the coastal zone

Coastal economy



Coastal economy of the Gulf of Mexico (2004)

Coastal Counties

1.3% of land

4.7% (\$496B) of US GDP (\$10.7T)

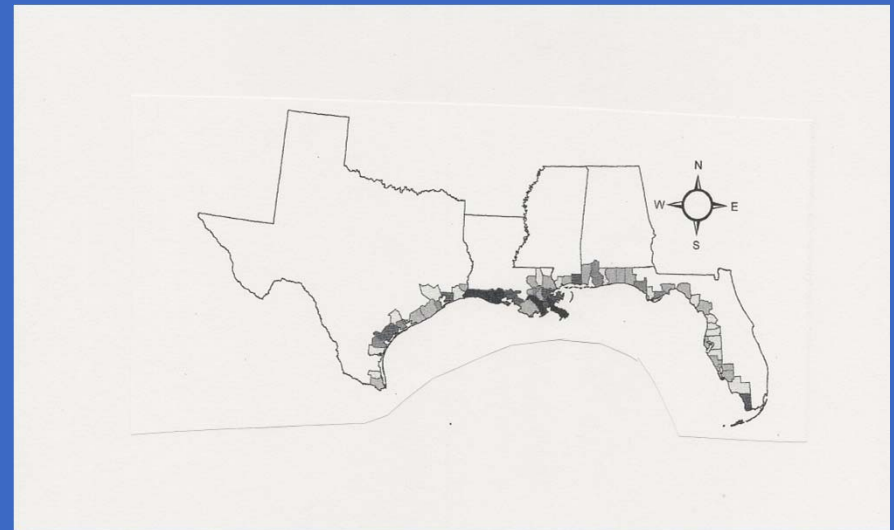
Coastal counties

as a percent of Gulf states

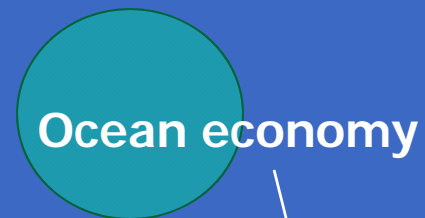
27% of employment

26% of wages

26% Gross State Product


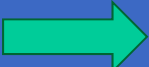




Gulf of Mexico



Economic activity using
ocean resources as an
input

Percentage contribution of the six major sectors to the Gulf of Mexico ocean economy in 2003

Sector	Employment (%)	Wages (%)	Gross State Product (%)
Construction	3	5	4
Living Resources	3	3	3
Minerals	3	8	 27
Ship and Boat Building	7	12	6
Tourism and Recreation	 71	 47	 41
Transportation	13	25	20
Total	100 (562,387)	100 (\$13.2B)	100 (\$32.8B)

Proportion of US ocean economy in the Gulf of Mexico in 2003

Sector	Employment (%)	Wages (%)	Gross State Product (%)
Construction	55	47	46
Living Resources	30	22	23
Minerals	61	56	57
Ship and Boat Building	26	22	21
Tourism and Recreation	25	22	23
Transportation	26	20	23
Total	26	23	27

Growth rates (%) of ocean economy sectors in Gulf of Mexico and US, 1990-2003

	Employment	Employment	Real GDP	Real GDP
Sector	GOM	US	GOM	US
Construction	5	-13	34	-8
Living Resources	➡ -30	-42	-14	-52
Minerals	-2	0	50	43
Ship and Boat Building	➡ 10	-32	18	-6
Tourism and Recreation	➡ 53	32	103	48
Transportation	-8	-27	51	67
Ocean Economy	➡ 29	8	61	16

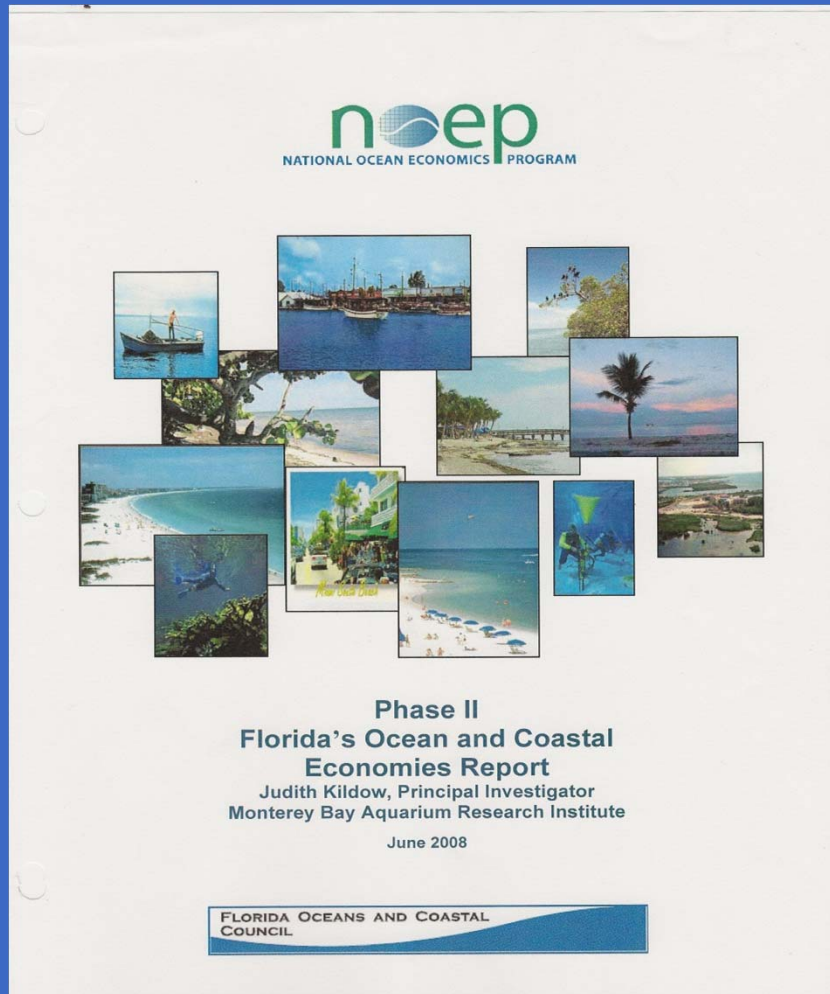
**Estimated non-market values for selected activities in Gulf of Mexico states for various years (rounded to nearest \$M)
–high estimate of range**

Activity	Alabama	Louisiana	Mississippi	Texas	Florida (both coasts)
Beach-going	592	202	434	1,762	8,858
Swimming	410	230	337	1,480	8,055
Bird-watching	472	911	725	1,605	7,795
Other wildlife	644	1,056	238	1,260	5,026
Fishing	422	1,249	466	1,643	5,629

High estimate 2-5 times higher than low estimate

A Current Project Related to the Deepwater Horizon Spill

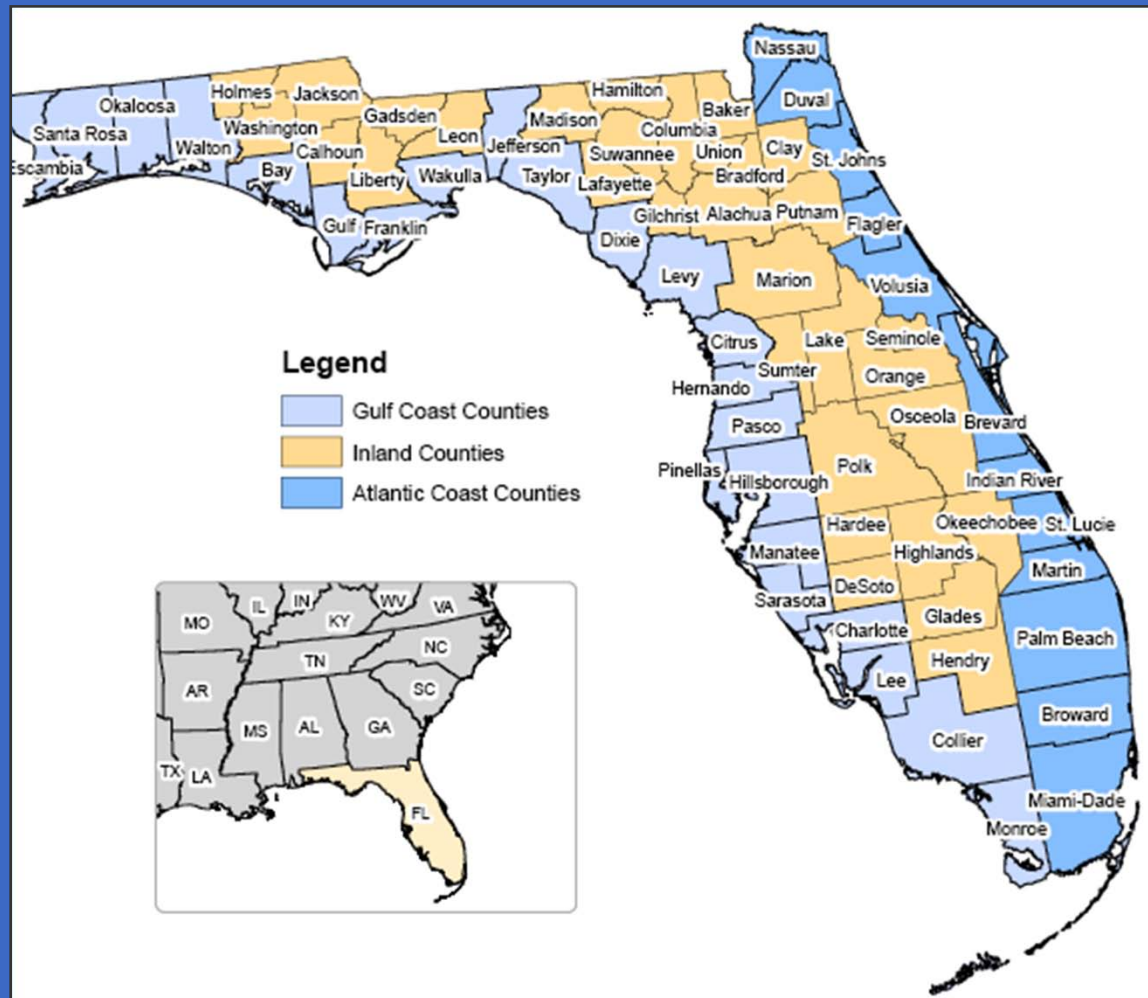
- Office of Economic and Demographic Research of the Legislature
- Food and Resource Economics Department, University of Florida
 - Estimate lost direct and passive use values experienced by Florida citizens
 - Estimate state government revenue losses based on the findings



Florida Oceans and Coastal Council
National Ocean Economics Program
Judith Kildow, Charles Colgan
and Linwood Pendleton
Florida Atlantic University
Lenore Alpert, William Stronge
M.J. Matthews and Angela
Grooms
University of Florida
Charles Adams and
Christopher de Bodisco

FLORIDA OCEANS AND COASTAL
COUNCIL

Florida coastal counties (35 of 67 total)



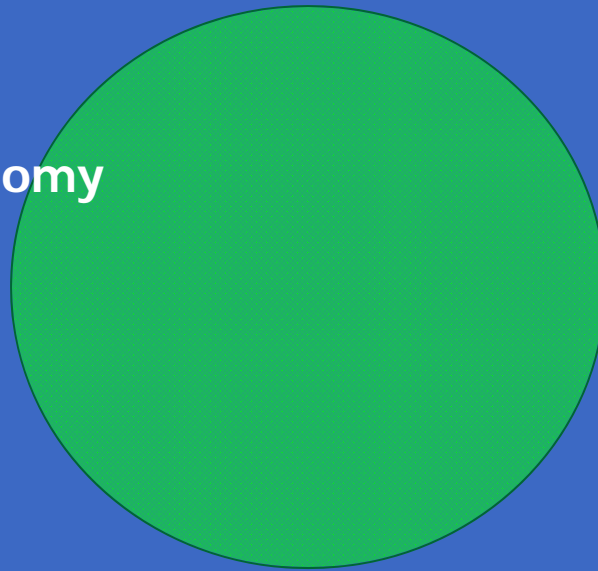
Florida has 20 major population centers

- 15 of them are located in the coastal counties around a bay, an estuary or at the mouth of a river that flows into the ocean!

Florida

Economic activity located
in the coastal zone

Coastal economy



Florida's coastal economy in 2006

- \$562 billion in GSP
- \$226 billion in wages
- 5.8 million jobs
- From 2003-2006 coastal economy grew about 17.5%
- 79% of Florida's economic activity
 - About 50% on Atlantic side
 - About 29% on Gulf of Mexico side

Sectors of Florida's coastal economy, 2006

Sector	% contribution to coastal economy
Financial activities	25
Trade, transportation, utilities	19
Professional & business services	13
Public administration	11
Construction	8
Education & health services	8
Manufacturing	5
Leisure & hospitality	4
Information	3
Other services	3
Natural resources & mining	1
Total	100

County level comparisons (year to year— for this report 2003-2006)

- Establishments
- Employment
- Wages
- Averages (per employee, contribution to GDP)
- Population, density, housing
 - Among all states, Florida third in coastal population, 13th in coastal population density

Florida



Economic activity using
ocean resources as an
input

Florida's ocean economy GSP (\$25 billion in 2005)

Sector	% contribution in Florida ('05)	% contribution to nation's ocean economy ('03)
Tourism & recreation	72	15
Transportation	18	10
Construction	3	12
Living resources	3	7
Ship & boat building	3	8
Minerals	1	2
Total	100	14 (overall)

Florida's ocean economy in 2005

- 4% of the state's Gross Domestic Product
- Top five ocean economy states:
 - California, **Florida**, New York, Washington, Louisiana/Texas

Supplemental data

- Fishing (commercial and recreational)
- Marine transportation and ports
- Marine construction-beach nourishment
- Cruise industry
- Coastal real estate values
- Marine research and education
- Non-market values
- Park visitation and attendance
- Recreational boating
- Diving and snorkeling
- Beach-going

Fishing Industry

- Inflation adjusted landings value-\$143M in 2007; down 66% by weight and 56% in value since 1990
- Seafood imports--\$1.7B; exports \$75M; some re-exports in 2007
- Over 2M anglers contributed \$3B in retail sales in 2006—Florida #1

Marine transportation

- International trade value including waterborne and airborne commerce through coastal access points totaled \$115B in 2007
- Florida's 14 deepwater seaports managed \$121M tons of cargo, generating \$73B economic impact

Coastal construction—beach nourishment

- 59% of Florida's beaches (485 miles) are experiencing erosion; 192 miles are nourished beaches managed by federal authorities
- \$1.1B spent on beach nourishment from 1960 to 2007—annual expenditures on decline

Cruise industry

- Florida ports handled over 4M of 9M US passengers in 2006
- Florida cruise lines generated almost \$6B in 2006, or one-third of the direct expenditures generated by the US cruise industry

Coastal real estate values

- 367,000 coastal properties valued for tax purposes in 2006 at \$181B, yielding \$2B in property tax revenues
- Coastal parcels are 7.5% of the value of all real estate in Florida

Seasonal housing

- #1 in nation
- Florida accounted for 16% of US seasonal housing units
- From 1990-2006, Florida had 57% growth; compared to US growth of 37%

Marine research and education

- Survey—39 of 55 institutions reported—a work in progress
- Annual budgets --\$272M
- Annual wages--\$154M
- Annual employment—2,925
- Degree students—2,234

Recreational assets have values beyond expenditures (non-market values)

- Florida is ranked #1 for number of participants in coastal recreation
- Largest increases predicted to be beach-going activities although peaked at 120M person days in 2005-06
- State park attendance in 2006-07 was 13.2M
- Over 1M vessels registered; mostly recreational
- Diving and snorkeling including recreational reefs
- Marine sanctuaries
- Marine estuaries

The Effect of Climate Change on Florida's Coastal and Ocean Economy

- Stanton and Ackerman. 2007. *Florida and climate change: The costs of inaction*. Tufts University.
 - Two scenarios—rapid stabilization vs. business-as-usual
 - Lots of assumptions
 - Focuses on tourism, increased hurricane damages, loss of property values, increases in electricity generation costs.
 - 5% decrease in Florida's Gross State Product by the end of the century.

The Effect of Climate Change on Florida's Coastal and Ocean Economy

- Harrington and Walton. 2007. Climate change in coastal areas of Florida: Sea level rise estimation and economic analysis to 2080. Florida State University.
 - Estimate damage costs and per acre value of lands in six coastal counties particularly susceptible to sea level rise: Dade, Dixie, Duval, Escambia, Monroe and Wakulla.

Final observations

- **The good news**
 - National leadership in key sectors
 - Strong asset base
- **Of concern:**
 - Economic cycles; need to pay attention to key sectors
 - Unique site subject to natural hazards
- **Natural and economic forces will be an increasing challenge for Florida's ocean and coastal economies**