

¹ Engineer Research and Development Center, Corps of Engineers (Paper will appear in Shore and Beach, 81(4), 2013)

Esthetic Value



Most Beautiful Beach in the U.S. (USA Today, 2013)

Traveler's Choice Number One Beach Destination in the U.S. (TripAdvisor, 2012)





America's Most Romantic Beach (America's Best, 2013)

Esthetic Value



Best Family Beach in the World (Travel Channel, 2013)

Best Party Beach in the World (Travel Channel, 2013)





Authur Frommer's Favorite Travel

Destination in the World

9 of the Traveler's Choice Top 25 beaches are in Florida – the most in U.S., beating out Hawaii (Trip Advisor, 2013)

Esthetic Value

 In 19 of last 23 years, Florida and Hawaii beaches have been named "America's Best Beach" by Dr Beach



1994 Grayton Beach





2002 St Joseph Peninsula Beach



2011 Siesta Key Beach

Recreational Value

- Florida beaches had about 810 million beach day visits in 2012, the most of any state or country in the world (Florida DEP, 2008; 2010; VisitFlorida, 2013; Houston, 2013)
- Four of the ten most visited beaches in the US are in Florida (Travel and Leisure, 2012)









Miami Beach

Daytona Beach

Hollywood

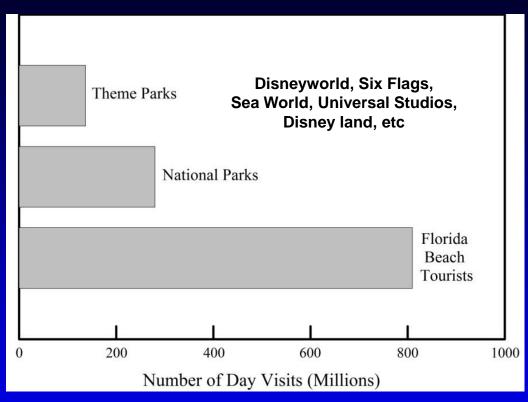
Brevard County

 Florida beaches have 70 times more tourist visits than visits to Yellowstone, Yosemite, and the Grand Canyon combined (Park Service, 2012)

Recreational Value

- Florida beaches have more tourist visits than all theme parks and National Parks combined
- Florida beaches have an annual recreational value of about \$50 billion (Houston, 2013)





National Park Service, 2012; Themed Entertainment Association, 2012



Environmental Value

Past – At times sea turtles could not nest on eroded beaches



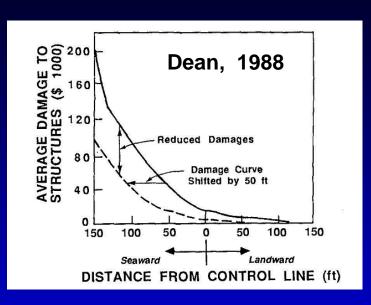




- Now Restored Beaches
 - "JAX Beach sees record sea turtle nests" (ActionNewsJAX.com, 2012)
 - "2012 best turtle nesting season in 32 years in South Florida" (Palm Coast Post, 2012)
 - "Endangered sea turtles nesting at record level along southeast U.S. coast" (Reuters, 2013)



Storm-Damage Reduction Value



Based on damage of 540 structures by Hurricane Eloise in the Florida Panhandle, even a 50-ft increase in beach width significantly reduces damage (Dean, 1988)



Long Beach Island, NJ



Holgate, NJ, "Complete destruction – it's like a war zone"

6 miles away at Brant Beach, NJ, "No overwash or wave damage"

 If Florida were a country, it would have the most tourists visits in the world

 If Florida were a country, it would have the second most spending by tourists in the world

Country	Tourists (Millions)
Florida	87.3
France	79.5
United States	62.3
China	57.6
Spain	56.7

Country	Spending (Billions)
United States	90.5
Florida	67.2
Spain	59.9
France	53.8
China	48.5

World Tourism Organization 2012 and VisitFlorida 2013

Florida tourists spent \$71.8
 billion in 2012 with tourism the #1 job provider, directly supporting 1 million of Florida's 8.7 million jobs

(VisitFlorida, 2013; Bureau of Labor Statistics, 2013; Florida TaxWatch, 2013, Houston, 2013)



Florida governor, Rick Scott, said that gains in Florida tourism show that it is, "... the leading driver of Florida's rebounding economy."



(Herald-Tribune 2012)

 Although 22nd in land area, because of its beaches, Florida has the highest U.S. insured land value of \$2.5 trillion

(InsuringFlorida, 2013)

 Florida's public school districts are the primary beneficiaries of local property taxes (Murley et al, 2003)

 International tourists spent \$25.2 billion in 2012 in Florida, earning about 50% more foreign exchange than the entire U.S. export crop of corn and wheat

(Census Bureau, 2012, Department of Commerce, 2012)





- Florida's beach nourishment program can be justified solely on the \$25.2 billion spent by international tourists
- However, international tourists have vacation options



Canadians can go to the Bahamas

UK and German tourists can go to Spain

 If Florida beaches are not maintained, international tourists will go elsewhere, and the U.S. will lose revenues far in excess of beach nourishment costs

Brazilians can go to Barbados



A Ft Lauderdale beach following Hurricane Sandy

Supporting the Goose that Lays the Golden Egg

Golden Egg

 Florida beach tourists generate local, Florida State, and Federal taxes of \$1.0, 2.3, and \$3.2 billion respectively

(VisitFlorida, 2013; US Travel Association, 2009; Bureau of Labor Statistics, 2013, Florida DEP, 2010)





Total annual taxes generated by Florida beach tourists

Condition of the Goose

 Almost half of Florida's 825 miles of shoreline is critically eroding (Florida DEP, 2010)



Offshore Disposal of Dredged Sand



Jettied Inlets and Navigation Channels

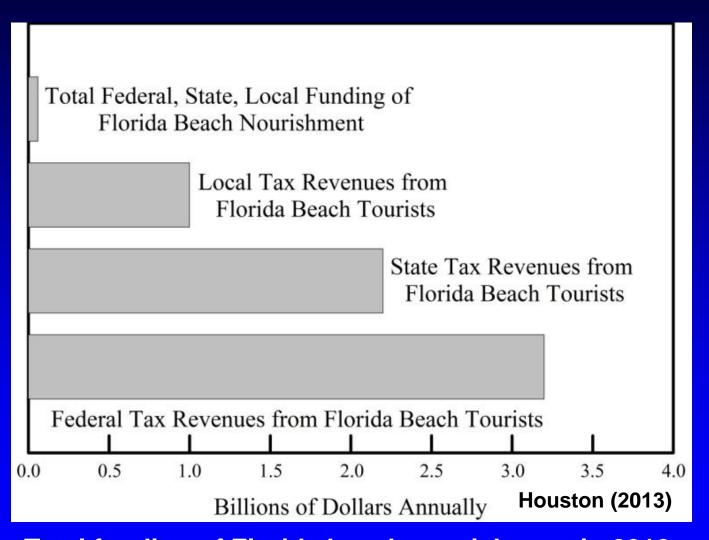


Sunset Beach, St Petersburg, following Tropical Storm Debbie

- Dean et. al. (1988) showed
 Federal navigation projects are responsible for
 - ~ 80% to 85% of erosion on the east coast of Florida (lesser % on west coast)

Taking from Versus Supporting the Goose

 Tax revenues generated by Florida beach tourists are 100 times expenditures on Florida beach nourishment

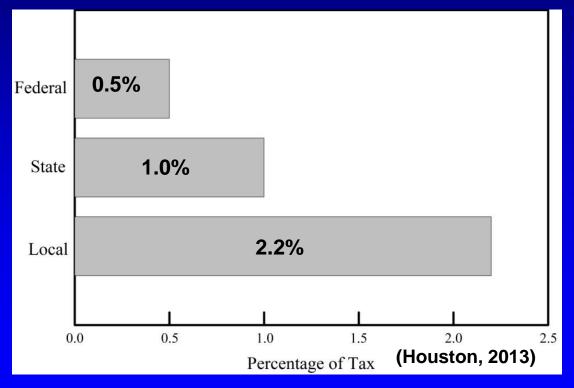


Total funding of Florida beach nourishment in 2012 versus tax revenues generated by Florida beach tourists

Supporting the Goose

 If Federal and State governments matched local spending on beach restoration as a % of the taxes they collect that are generated by Florida beach tourists, the Federal program would be ~ \$75 million annually and the State program ~ \$45

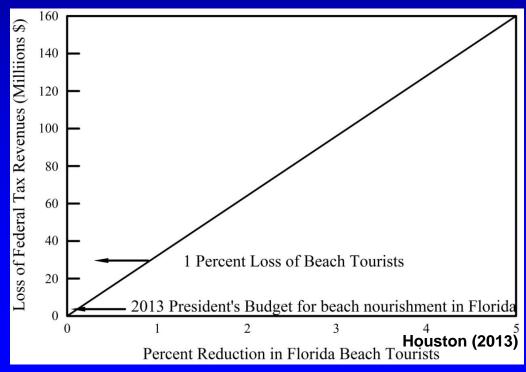
million



Percentage of tax collected from beach tourists spent on Florida beach nourishment in 2012

Supporting the Goose

- A 1% decline in spending by Florida beach tourists:
 - Reduces Federal tax revenues more than \$30 million (versus \$2 million for Florida beaches in the President's 2013 Budget for the Corps of Engineers)
 - Reduces State tax revenues by more than \$20 million (greater than the State beach nourishment program)



Casting Stones at the Goose

 U.S. Senator Coburn from Oklahoma published a 2009
 Congressional report arguing that nourishing beaches was a waste of Federal taxes



Cover of Report, "Washed Out to Sea: How Congress Prioritizes Beach Pork over National Needs"

Casting Stones at the Goose

 Senator Coburn supported funding of \$58.7 million in the 2013 President's Budget for the Corps of Engineers for recreation at 27 Oklahoma lakes (Corps 2012)



 Oklahoma lakes have less than 3% of the number of day visits to Florida beaches, but received over



Oklahoma Hogs at Trough



A lean Florida pig out for a dip

Florida beaches, but received over 1000 times as much funding per day visit as Florida beaches

Lake Versus Beach Recreation

 Originally built for flood control, much of the spending at Corps lakes is to operate recreation facilities including 95,244 camping sites; 31,360 picnic sites; 1,657 playgrounds; 3,484 boat ramps, ..., 485 marinas, and 99,809 marina slips (Corps 2010)

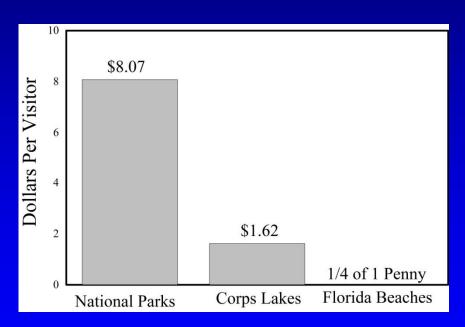
Corps lake recreational

 Orrin Pilkey asks why Kansas farmers should pay for beach nourishment. The President's Budget had \$27 million for Kansas recreational lakes and \$2 million for Florida beach nourishment

 Lakes had over \$600 million in the President's Budget for Corps' operations and maintenance that did not have to be justified as new construction as did the \$37 million for national beach nourishment

Supporting the Goose

 The Federal government provides little support to beach versus inland recreation despite Florida beaches having more day visits than all Corps and National Park facilities combined



President's 2013 Budget spending per tourist visit



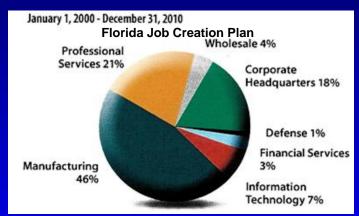
One of 2500 Corps' recreation facilities

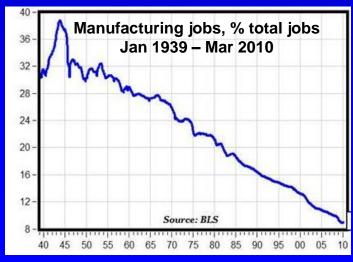
Supporting the Goose

- Florida is "enlightened", having dedicated beach restoration funding (~ \$20 million in 2013-2014)
- Florida budget (13-14) has \$247 million for Seaport Grants (recall 80 - 85% erosion due to navigation channels)

Jobs

- From 2000 2010, Florida spent 46% of its tax incentives to attract manufacturing jobs
- From 2007 Apr 2013, Florida lost 24.5% of its manufacturing jobs, but tourism jobs increased 12.1% (Federal Reserve, 2013)
- "Tourism is our state's number one competitive advantage"
 - Florida TaxWatch, 2013





Summary

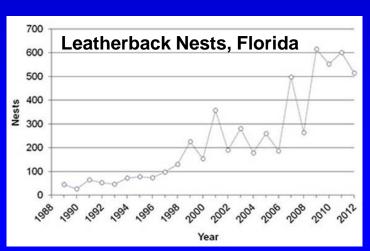
Esthetic Value

 The world sings the praises of the esthetic value of Florida beaches



Recreational Value

 Florida beaches are the most visited beaches in the U.S./world and have an annual recreational value of \$50 billion





Environmental Value

No beaches, no sea turtles

Summary

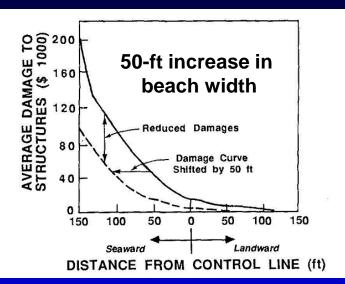
Storm-Damage Reduction Value

"If you look at the towns that have had engineered beaches, up and down the state, those are the towns whose damage was minimal. Other towns that didn't, the damage was much greater."

- NJ Governor Chris Christie

Economic Value

Tourism is vital to Florida's economy with tourists spending
 \$72 billion and tourism being the
 #1 provider of jobs in Florida
 (Florida TaxWatch, 2013)





Conclusions

- Beaches are Florida's # 1 physical resource
- Their value is not sufficiently recognized in Florida's budget
 - Budget is ~ \$75 billion
 - Beaches budget ~ \$20 million (1% decline in beach tourists reduces Florida tax income by > \$20 million)
- Tourists have ample options and will go else where if Florida's beaches are not maintained
- It is critical to maintain Florida's beaches





