

# Demographic and economic impacts of the *Deep Water Horizon* oil spill on communities of the Gulf Coast



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# Introduction



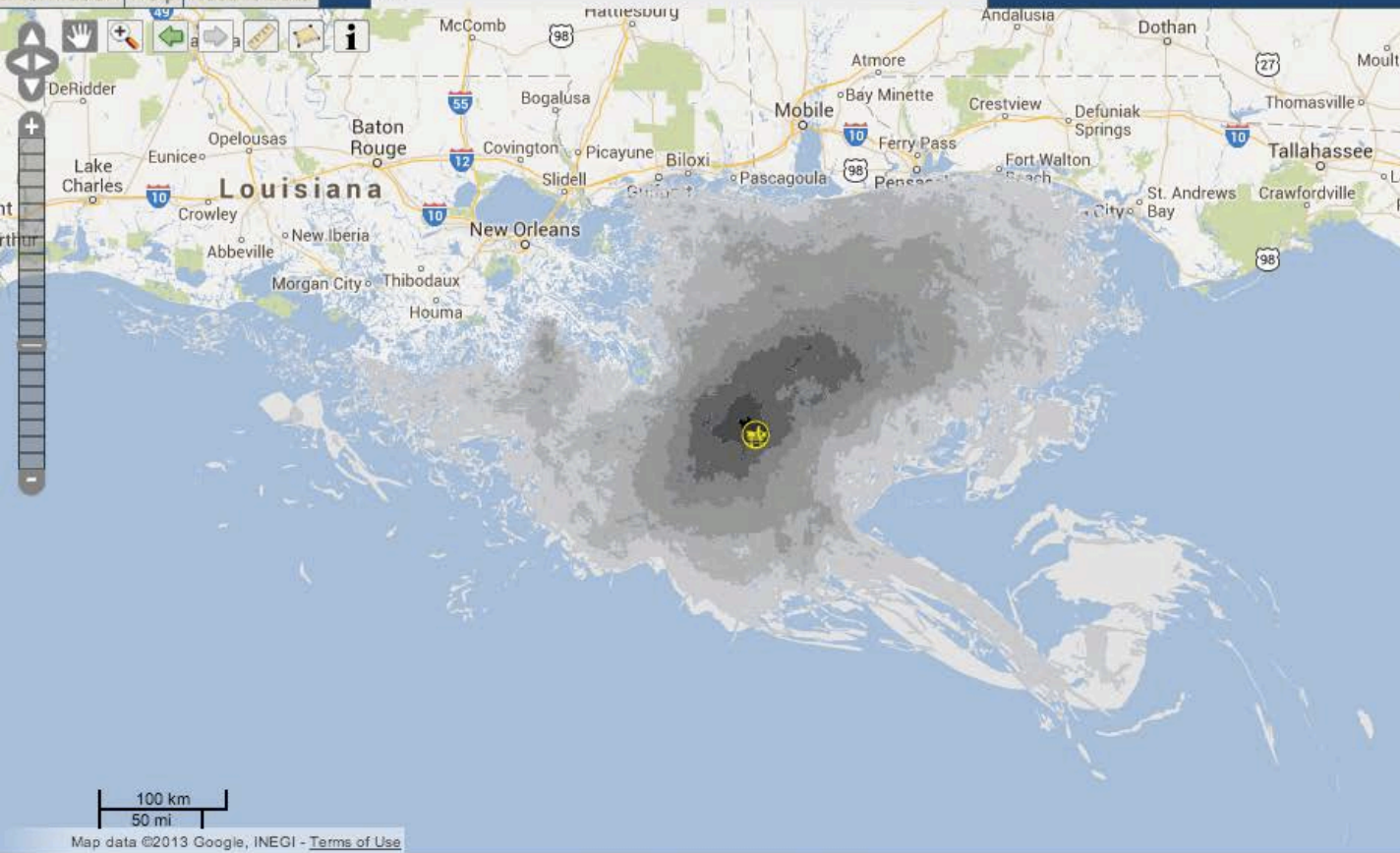
- April 20, 2010 BP's Deep Water Horizon oil platform explodes, killing 11 workers
- Over the next few months, oil from the accident washes ashore in five states along the Gulf Coast from Florida to Texas
- Over 84 days, an estimated 4.9 million barrels of oil were released
- Over 88 thousand square miles of fisheries (~40% of the Gulf waters) in the Gulf were closed between May and November 2010

# Days of Oiling



## ERMA DEEPWATER GULF RESPONSE

Information Help Recent Data Find



Environment  
Management Application

Layers Legend Query Tools Zoom Download

### Cumulative Oiling

#### Cumulative NESDIS SAR Oiling - Days of oiling

- 1 day
- 2 - 5 days
- 6 - 10 days
- 11 - 20 days
- 21 - 30 days
- 31 - 40 days
- 41 - 50 days
- 51 - 60 days

### BP Deepwater Horizon Oil Spill

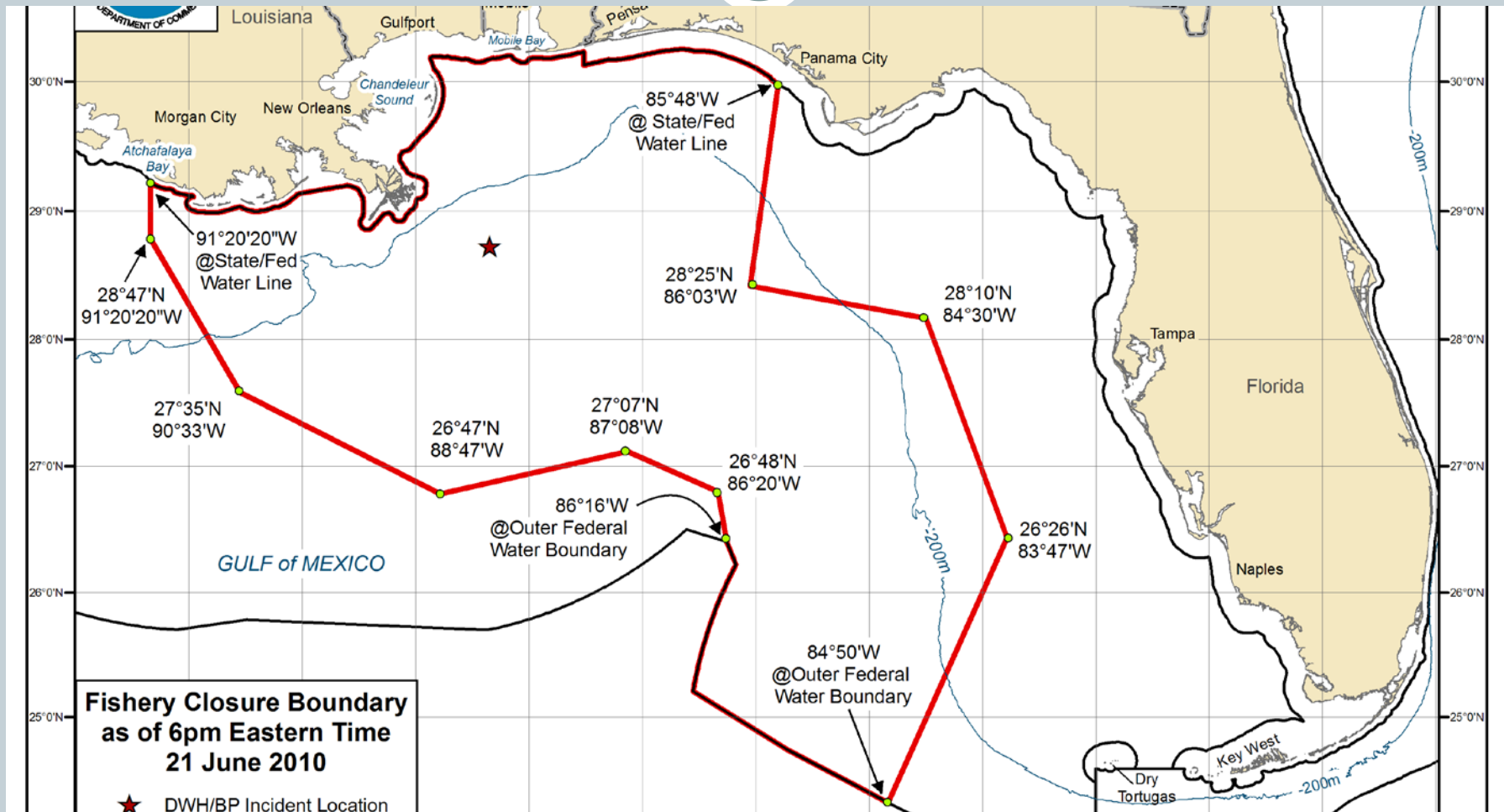
#### Wellhead Surface Location

- Wellhead

Scale: 1: 3M Zoom Level: 7 Location: 28.22928°,-87.79667°

National Oceanic and Atmospheric Administration | Environmental Protection Agency

# Fisheries Closures: June 2010



# Economic Costs



- Sumaila et al (2012) project that the fishing industry in the Gulf could lose as much as \$8.7 billion, including losses to wages, revenues and profits
  - Also suggest up to 22,000 jobs could be affected
- Whitehead et al (2011) have found evidence of mutations to many types of seafood in the wake of the disaster
  - Suggests long-term impacts to fish themselves
- Oxford Economics projected that between 2010-2013 losses of up to \$23 billion to the tourism industry along the Gulf

# Effects Visible with Demographic Data??

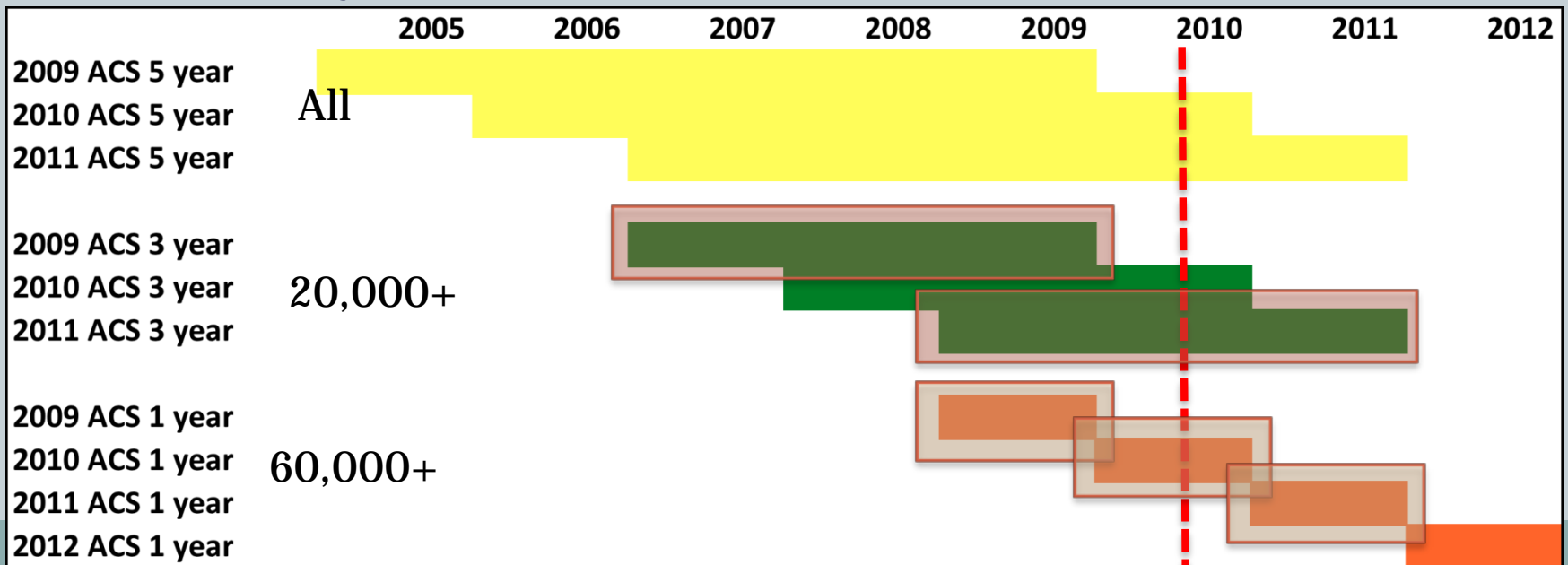


- Given the estimates we have seen so far, are we, as demographers able to measure any of this impact using available data?
- Best case scenario:
  - We can measure losses to employment in the areas affected
- Worst case scenario:
  - Oil spill was book-ended by hurricanes that have greater demographic impacts
  - Data for too few post-spill years available to identify demographic impacts

# Goals of the Present Study



- Use data from the American Community Survey summary files and PUMS to measure changes in local economic patterns in the wake of the DWH disaster
  - Not as easy as it seems



# Preliminary Analyses



- **Using ACS 3-Year Estimates for Census Designated places (CDPs)**

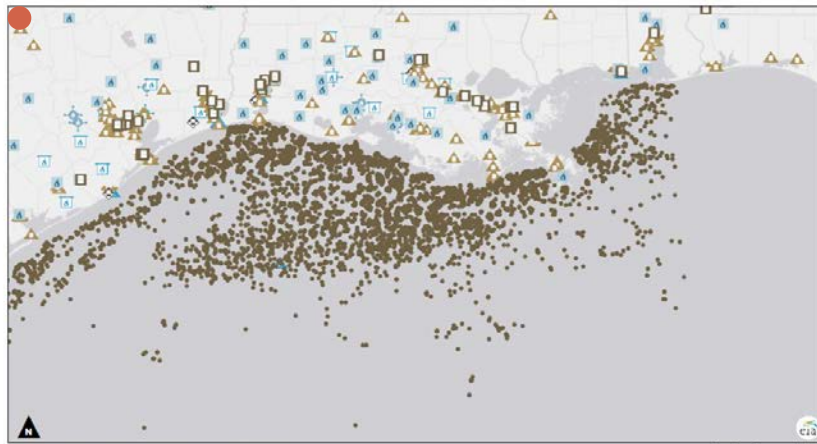




- **Using ACS 1 - year PUMS Microdata**

# Wither long-term impacts?

- Resiliency of the oil and gas industry



Grey Base Copyright ©2013 Esri, DeLorme, NAVTEQ

Oil/Gas Active Platform in Federal Waters  
Petroleum Refinery  
Natural Gas Processing Plant (z)  
Petroleum Terminal  
Strategic Petroleum Reserve  
Northeast Home Heating Oil Reserve  
Natural Gas Underground Storage (z)  
NGL Market Hub (z)  
Natural Gas Market Hub (z)  
Petroleum Port

## Gulf Oil Boom

The U.S. Gulf of Mexico will see a surge in oil and gas production in the next decade as new, large deep-water projects come on line or existing ones expand. Here are some of those projects and the companies behind them. Developer and name of project:



Source: Bureau of Ocean Energy Management  
The Wall Street Journal

BUSINESS

wsj.com

## After Spill, Gulf Oil Drilling Rebounds

Production Dipped After Deepwater Horizon Disaster; New Finds Will Lift Output 28% in a Decade

# Wither long-term impacts?



## ● Resiliency of the tourism industry

### New Orleans tourism breaks record in 2011



By Michelle Krupa, The Times-Picayune

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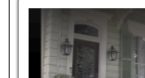
on March 27, 2012 at 10:00 AM

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business i



Crediting an influx of marketing cash from oil giant **BP**, **tourism** officials on Monday said 2011 was a banner year for New Orleans, with 8.75 million visitors spending a record-breaking \$5.47 billion. Mayor **Mitch Landrieu** cited a new study by the **University of New Orleans** Hospitality Research Center that showed a 5.6 percent increase in the number of visitors compared with 2010, and \$180 million bump in spending.



Rusty Costanza, The Times-Picayune archive

Bourbon Street on Mardi Gras 2011. tourism officials on Monday said 2011 was a banner year for New Orleans, with 8.75 million visitors spending a record-breaking \$5.47 billion.

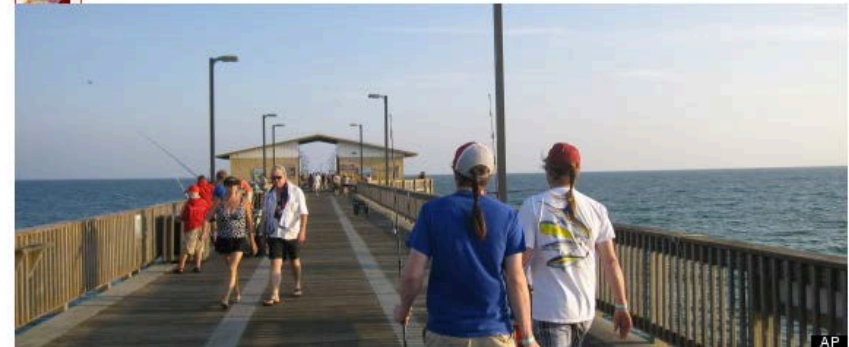
He said the tourism boom is due largely to an infusion of marketing money that BP doled out to Gulf Coast communities affected by the massive **2010 oil spill**.

Mark Romig, president of the New Orleans Tourism Marketing Corp., said tourism agencies last year had \$3.8 million more than the \$5.1

Nola.com

### Gulf Coast Tourists Return After BP Oil Spill, Some Areas Still Waiting To Recover

Reuters | Posted: 05/27/2012 12:46 pm Updated: 05/28/2012 12:08 am



huffingtonpost.com

## From Oil Spill to Innovation in Louisiana

St. Landry Parish Tourist Center Unveils First Multi-touch Tourism Exhibit in Louisiana

prweb.com

# Conclusions



- If demographic effects cannot be identified, two conclusions:
- The oil spill had:
  - 1. only environmental consequences
  - 2. had socio-demographic consequences but they cannot be measured with aggregate data.
- Anthropologists on the documented job losses and forced migration at household and community level
- → demographic data not appropriate indicator for identifying socio-demographic effects of oil spills

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<http://bara.arizona.edu/>