

The background of the slide features a close-up photograph of vibrant green leaves on a thin brown branch, set against a soft, out-of-focus background of more greenery and light. The leaves are detailed, showing their veins and serrated edges.

Assessing the Impact of the *Deepwater Horizon* Oil Spill on Tourism and Recreation in the Gulf Region

Presentation at the BOEM Information Transfer Meeting - 2017

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Overview of presentation

- Project background and objectives
- Overview of the extent of the project work
- Discuss each of the data collection/analysis components
- Provide some summary key findings and conclusions

Background

- April 20, 2010: Deepwater Horizon oil rig explodes killing 11 workers and injuring 17 more
 - 4.9 million barrels of oil released
- Significant impacts on the ecosystem health and the Gulf region economy
- A lot of discussion of the significant impacts on tourism
 - Focus of this project

Project objectives

- Part 1: Update and extend tools BOEM can use to estimate scale of tourism and recreation in the Gulf region
- Part 2: Examine direct and indirect impacts of DWH oil spill on tourism

Data collection and data processing tasks

- Gulf Coasts Claim Facility data
- Field work
- Content analysis of web site and media descriptions of the spill
- Developed a database that provides levels of economic activity for tourism and recreation sector in 64 Gulf region counties
 - Econometric time series analysis of the data from three of the 64 counties

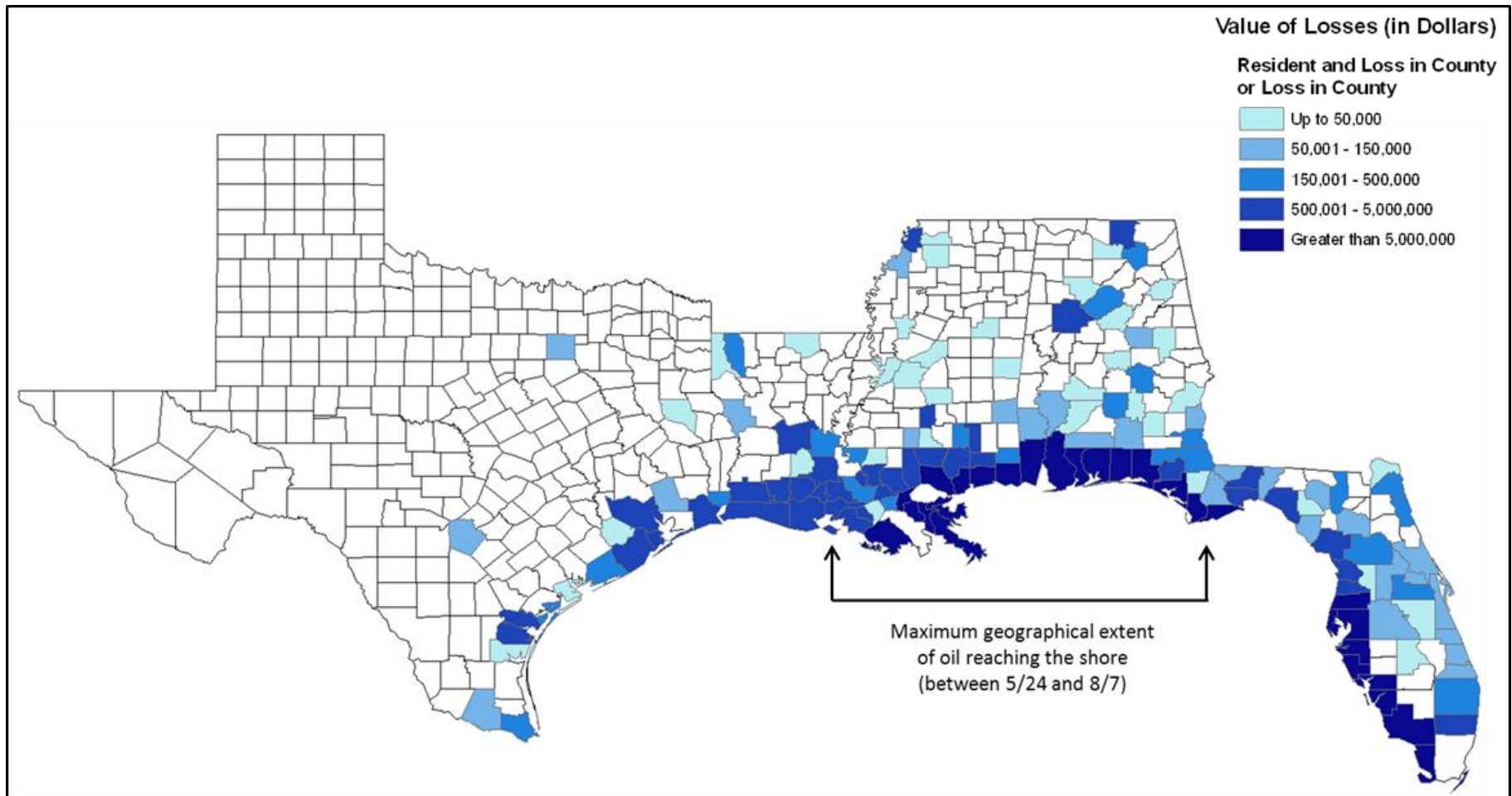
GCCF Data Summary and Analysis Overview

- \$20B fund to pay claims related to DWH
 - BP money
- August 2010 to June 2012
 - Replaced by court-supervised settlement program
 - We used data on paid claims from 8/22/10 to 3/1/12
- Our focus was on tourism-related claims in the data
 - Used BOEM definition of tourism
- Both business and individual claims

GCCF Data Analysis - Results

- Just under \$2B in tourism-related claims paid over the time period
- Restaurant-related (\$1B) led the way
 - Lodging (\$337M)
 - Charter fishing (\$115M)
- Texas had a different pattern of claims
- Louisiana and Florida had the highest amount of claims

Location of physical loss for tourism claims

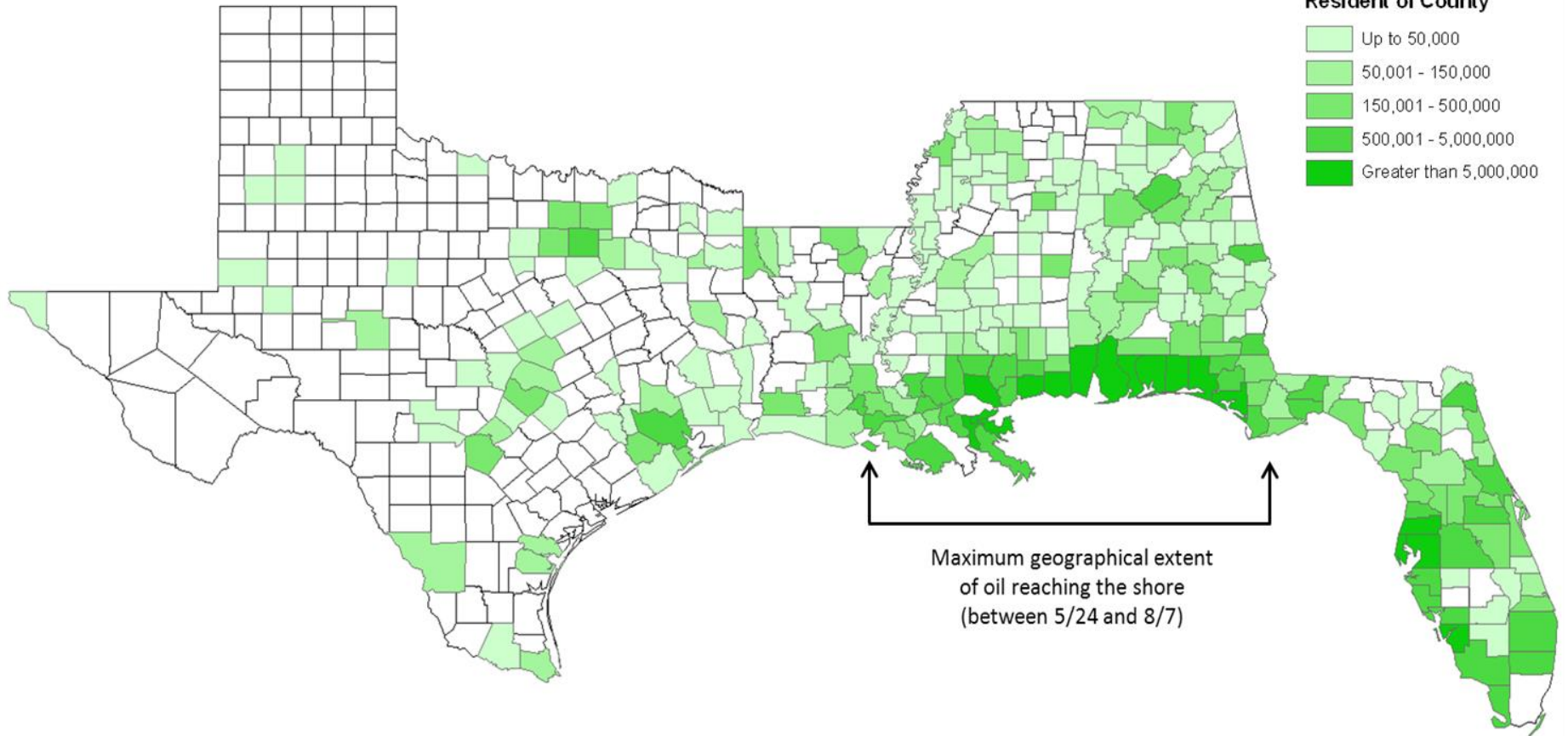


Residence of claimant for tourism claims

Value of Losses (in Dollars)

Resident of County

- Up to 50,000
- 50,001 - 150,000
- 150,001 - 500,000
- 500,001 - 5,000,000
- Greater than 5,000,000



Maximum geographical extent
of oil reaching the shore
(between 5/24 and 8/7)

Field Work - Overview

- ERG performed a total of 24 interviews in six different locations (TX to FL)
 - Tourism bureaus, trade associations, and businesses
 - Trade association and business interviews focused on industries with large (paid) tourism claims in GCCF
- Summer 2012
- Interviews focused on impacts and recovery related to DWH spill

Field Work Findings

- Public perception drove some of the impacts
 - Driven by media portrayals
- Prior planning and experience was key
- Information
 - Assisted in recovery
 - Needed for the future
- Collaboration assisted in recovery
- BP money was important for recovery
 - Marketing tourism in the sector

Content Analysis - Overview

- Reviewed newspaper reports from day after spill to January 2012
 - ~70-80 newspapers
 - Avoided op-ed/advocacy pieces
- Purpose: what story did the media tell about tourism and the spill?

Content Analysis Findings

- Recovery from 2008 recession was thwarted
- Articles later in the time period were indicating the region was getting back to pre-spill levels
 - BP money to help with marketing
- Misperceptions about impacts
- Tourism officials use of social media and the internet were helping the recovery

Tourism and Recreation Data Development – Overview

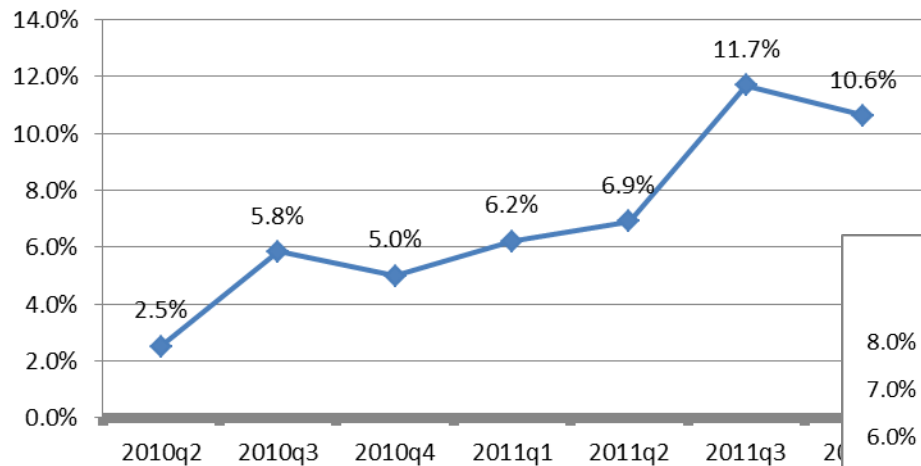
- County-level QCEW and Nonemployer data for 64 Gulf region counties
- Estimated the amount attributable to tourism and recreation using “tourism commodity ratios” (TCRs)
 - TCRs were sector but not county-specific
- Used quarterly data from 2009q2 to 2011q4
 - Looked at changes between “same quarters”
 - Focused on employment

Tourism and Recreation Data Findings

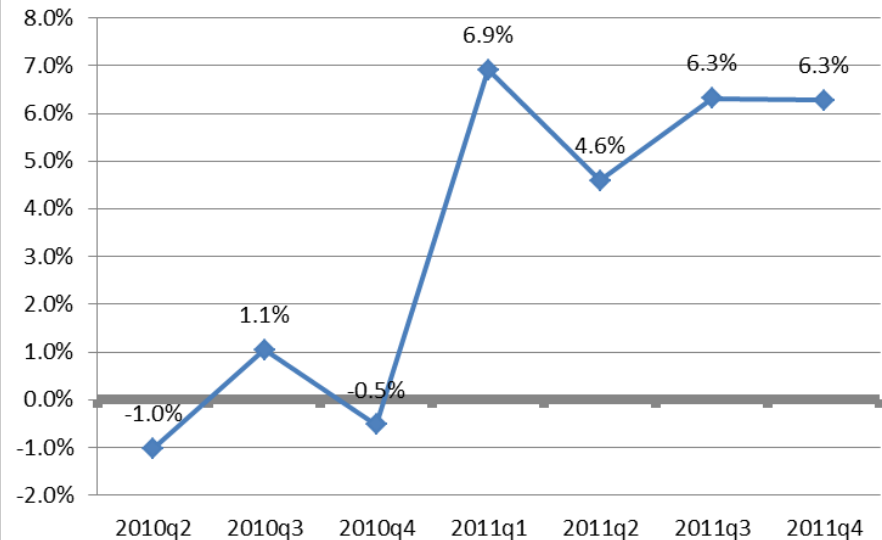
- For counties with 1,000 or more employees (2009) only small initial declines or no decline at all followed by “recovery.”
- Two counties with >1,000 employees saw a decline
 - Hancock County, MS (hotels, restaurants, A&E)
 - Sarasota County, FL (A&E, hotels)

Tourism and Recreation Data Findings

Orleans Parish, Louisiana



Hillsborough County, Florida



Why?

- Data issues
 - Looking for impacts in aggregate data
 - But, we parsed our tourism and recreation
- TCRs are constant over time
- Assessment and restoration efforts could have filled in the gaps

Econometric analysis

- Looked at monthly time series on tourism employment for three counties
 - Orleans Parish
 - Hillsborough County (FL)
 - Pinellas County (FL)
- Two modeling approaches
 - Transfer function: include controls for covariates and the spill
 - Forecast from prior period over the time period that includes the spill

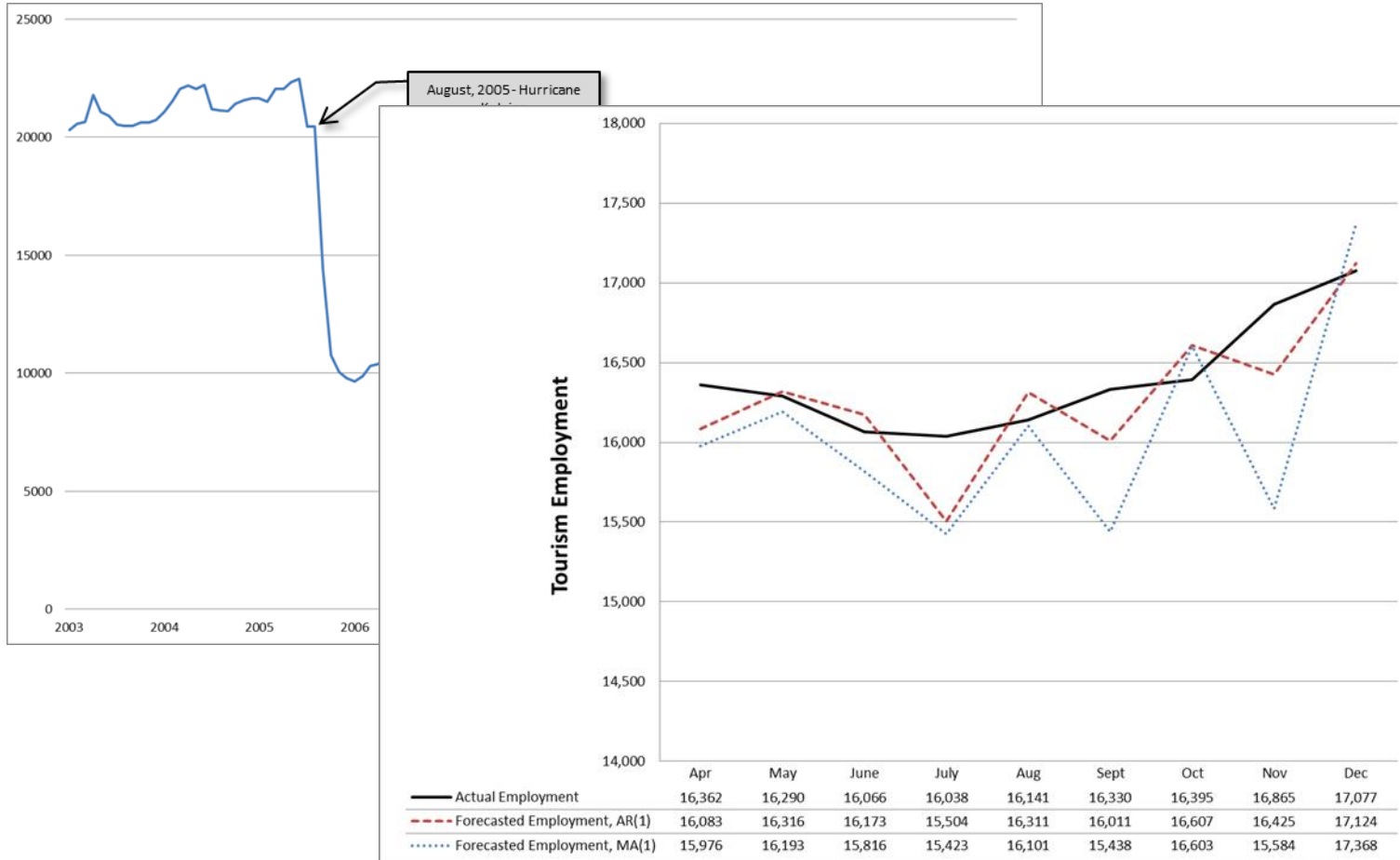
Transfer function approach

- Used a 12 month seasonal model
- Controls based on tourism modeling
 - Income and wages
 - DWH spill and Katrina
- No impact for DWH spill
- Large impacts for Katrina

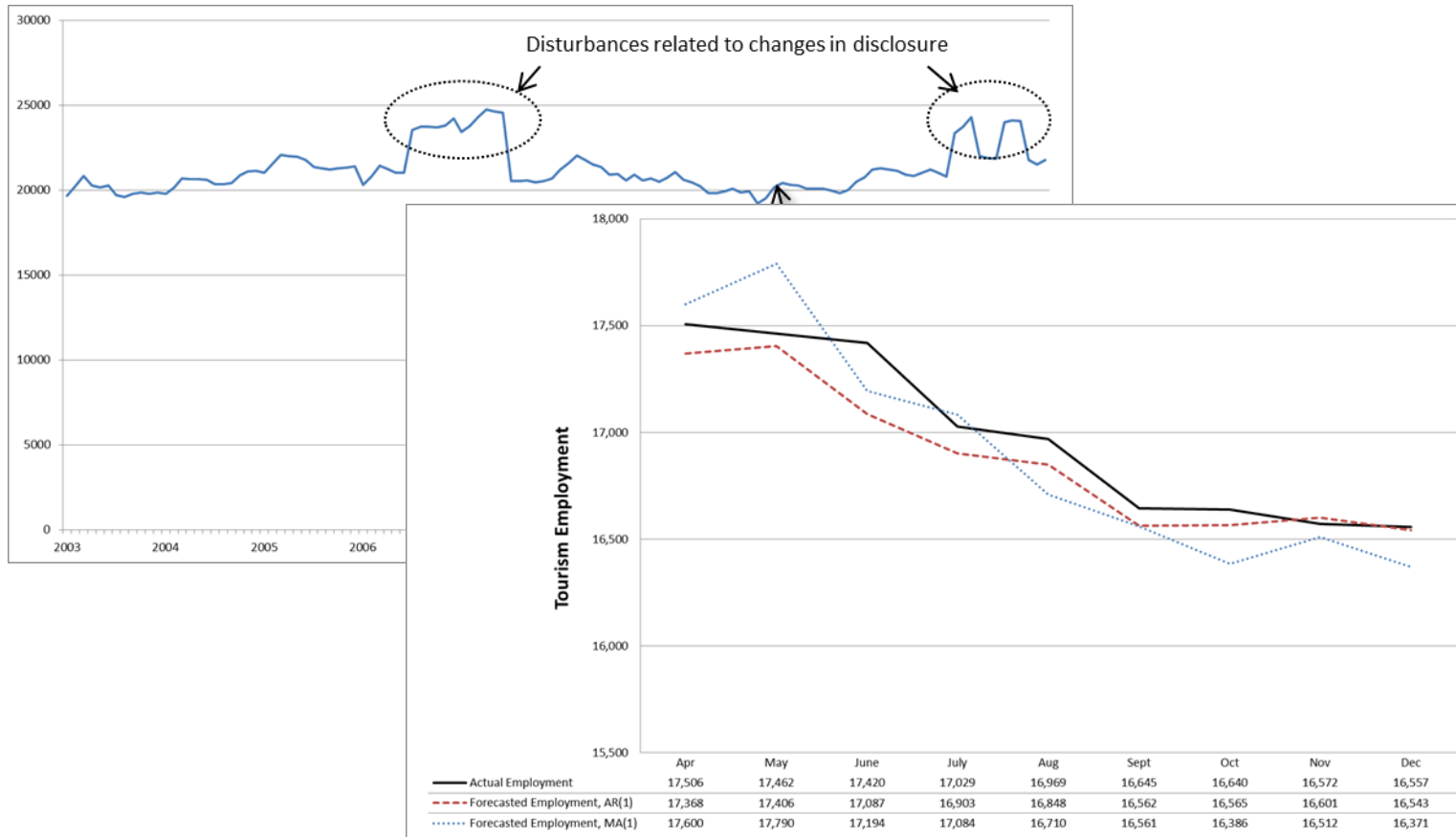
Forecast approach

- Estimate a simple time series model for tourism employment using a period prior to the spill
 - 12 month seasonal model
- Compare forecast to actual employment levels
- No impact found in the three counties

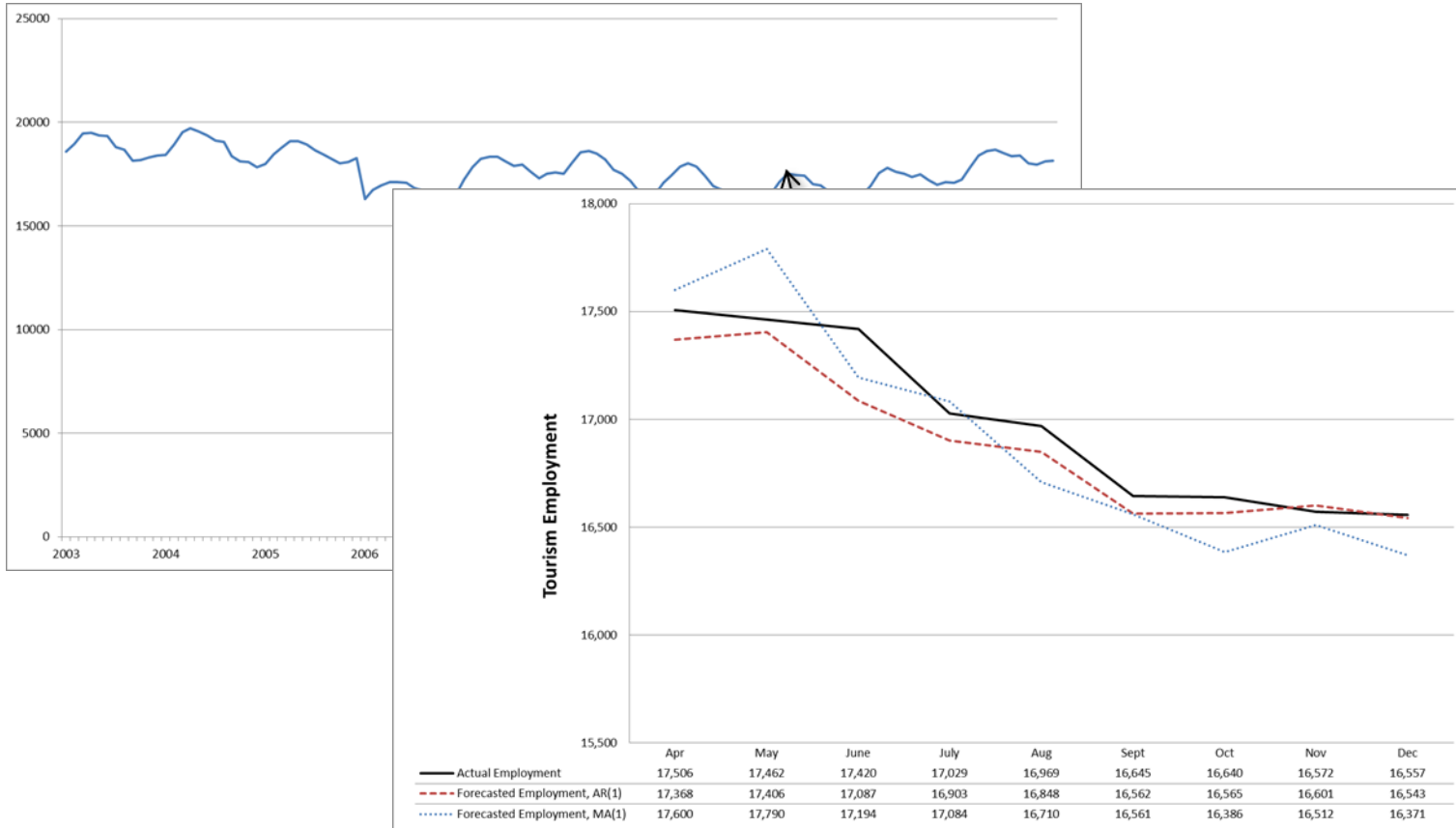
Orleans Parish



Hillsborough County



Pinellas County



Key Findings

- Using multiple data sources results in a complicated and sometimes contradictory story of impact
 - Wide geographic impacts
 - Reach went beyond where the oil was
 - A story of resiliency?
- Perception can drive impact and recovery
- Preparation can lead to resilience and recovery