



# Potential Economic Impact of the Oil Spill

June 21, 2010



Jefferson Orleans Plaquemines St. Bernard St. Charles St. James  
St. John the Baptist St. Tammany Tangipahoa Washington



## **Economic Impact of the Moratorium**

- **Potential Solutions to the Moratorium**
- **Economic Impact of the Oil Spill**
- **Positive Responses**

# Economic Impact of the Moratorium

Three broad scenarios were employed in April to estimate potential economic impact. We are now well beyond Scenario 3, the worst case.

	<u>Spill Rate (bbls/day)</u>	<u>Duration</u>	<u>Total Barrels</u>	<u>Comments</u>
<b>1</b>	1,000 - 5,000	10 - 15	30,000 - 125,000	Assumes successful BOP shut-off
<b>2</b>	1,000 - 7,500	21 - 28	41,000 - 260,000	Nearing Exxon-Valdez level of spillage
<b>3</b>	1,000 - 10,000	60 - 120	80,000 - 1,125,000	Approx. 1/2 of Ixtoc spill; largest ever in U.S.



**Now**      20,000 - 40,000+      60 - 120      1,200,000 - 4,800,000      Largest in peacetime history



# Economic Impact of the Moratorium

**Initial view was that impact to Oil & Gas would be modest  
– unless there was a severe regulatory response.**

## Shipping

### Nature of Impact

- Increased costs from navigating around the slick
- Assumes Mississippi remains open

### Impact Scenarios

- Scenario 1: tbd
- Scenario 2: tbd
- Scenario 3: tbd

## Oil & Gas

### Nature of Impact

- Isolated impacts on small number of rigs near incident

### Impact Scenarios

- Scenario 1: ---
- Scenario 2: ---
- Scenario 3: TBD (if severe regulatory response)

## Chemical Man'f

### Nature of Impact

- Potential increased transportation costs
- Potential benefit from manufacturing dispersant

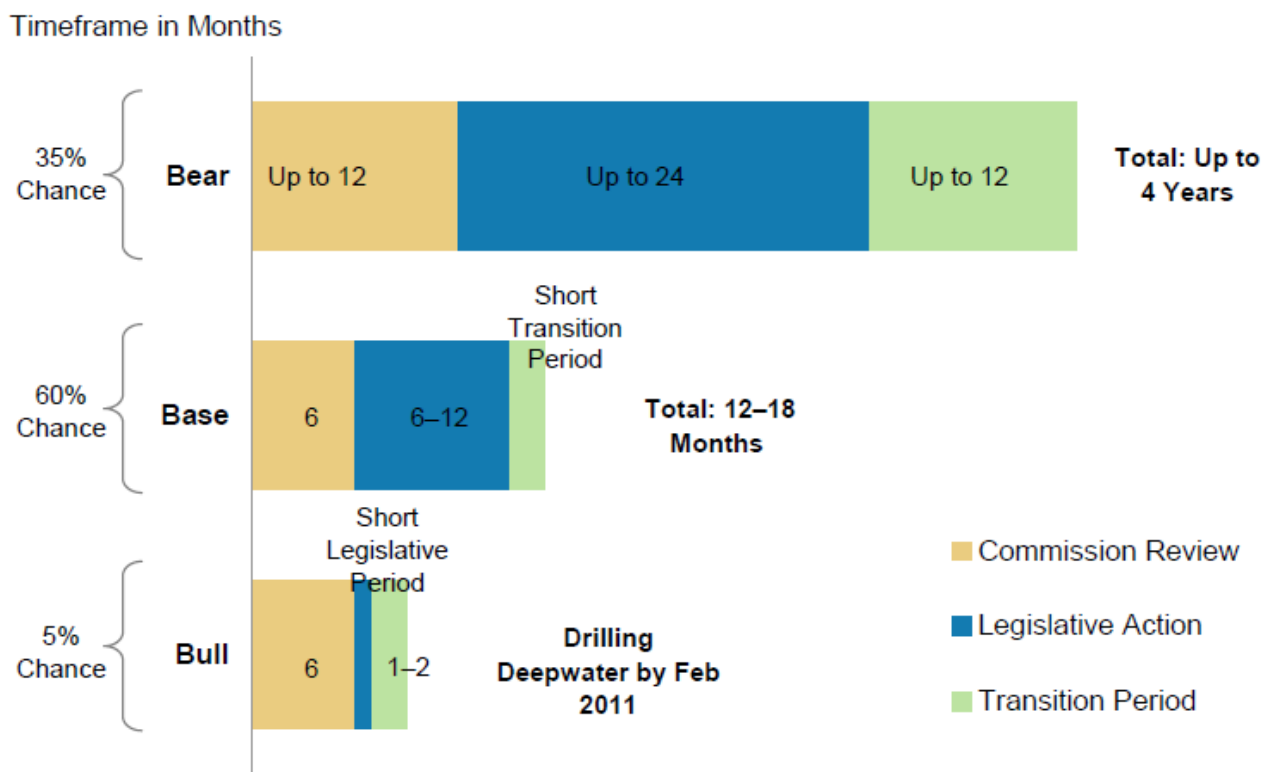
### Impact Scenarios (lost output)

- Scenario 1: \$10 - \$25M impact
- Scenario 2: \$25 - \$35M impact
- Scenario 3: \$75M - \$100M impact

***We are now seeing that severe regulatory response.***

# Economic Impact of the Moratorium

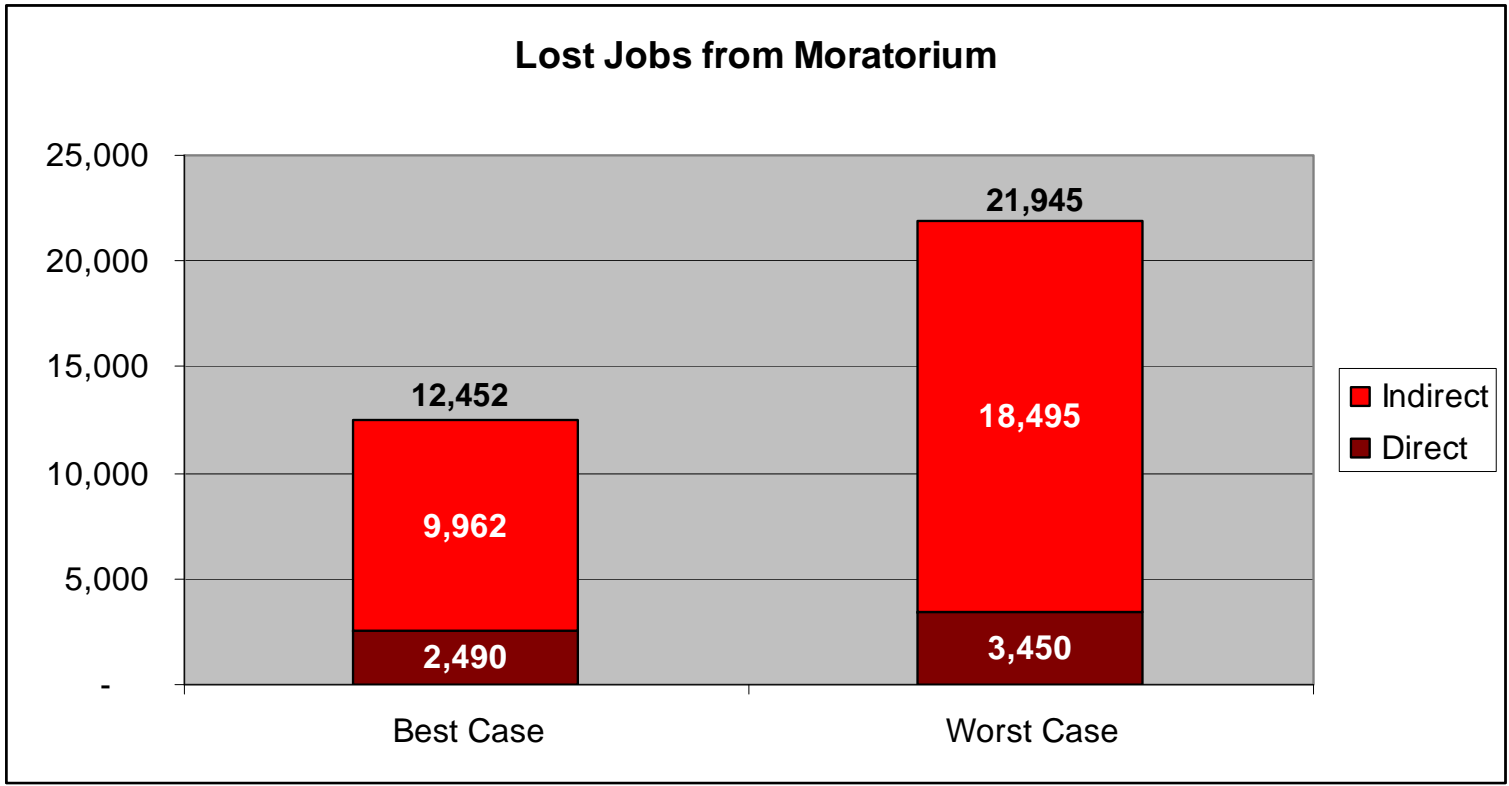
For this analysis, “Best” and “Worst” impact timeframes are based off of Morgan Stanley “Base” and “Bear” cases.



Source: Morgan Stanley Research estimates. The probabilities shown are illustrative. They do not forecast a precise series of events and do not account for all possible outcomes but instead illustrate our sense of the relative plausibility of the selected scenarios

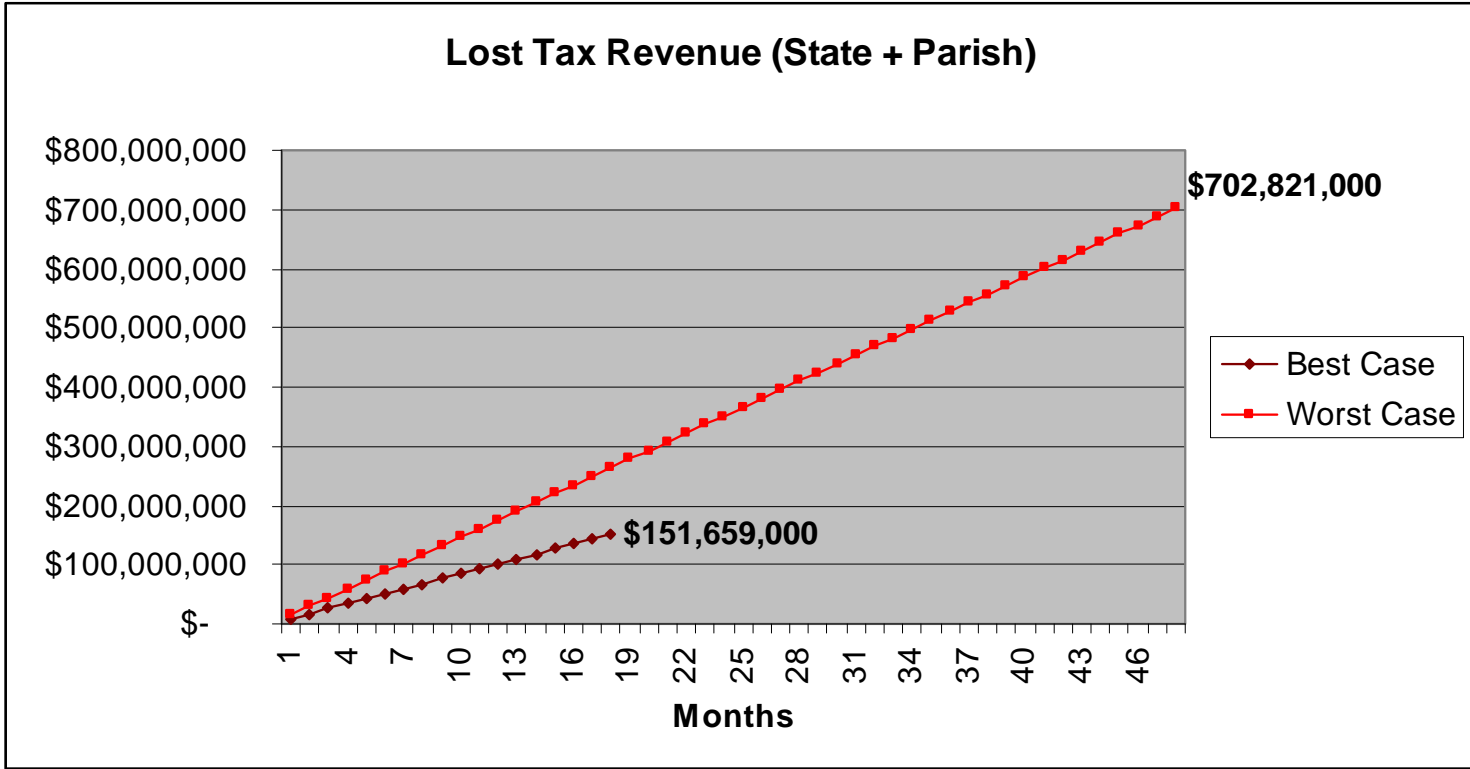
# Economic Impact of the Moratorium

**Under conservative assumptions, potential LA job losses are up to 22,000.**



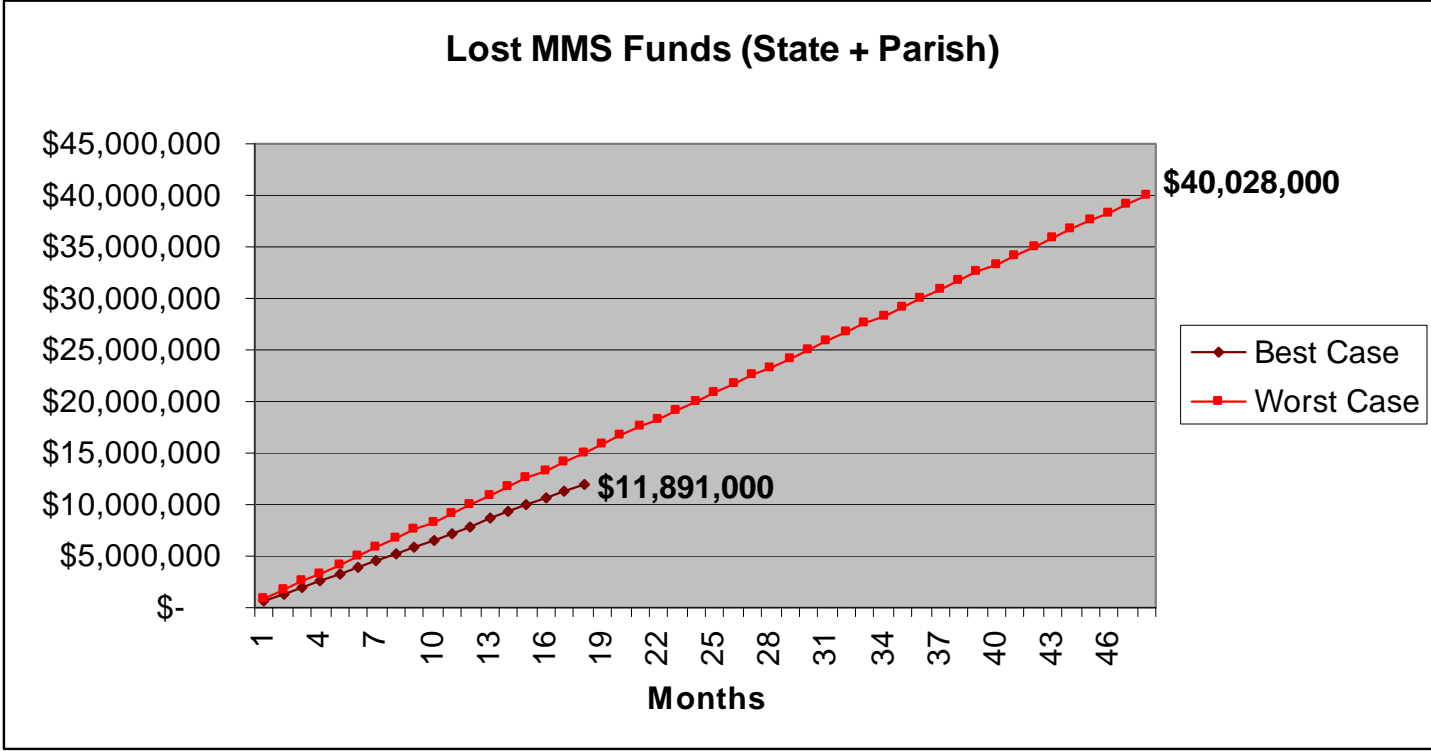
# Economic Impact

Tax revenue losses accrue at a rate between \$8M and \$15M per month, and could surpass \$700,000,000.



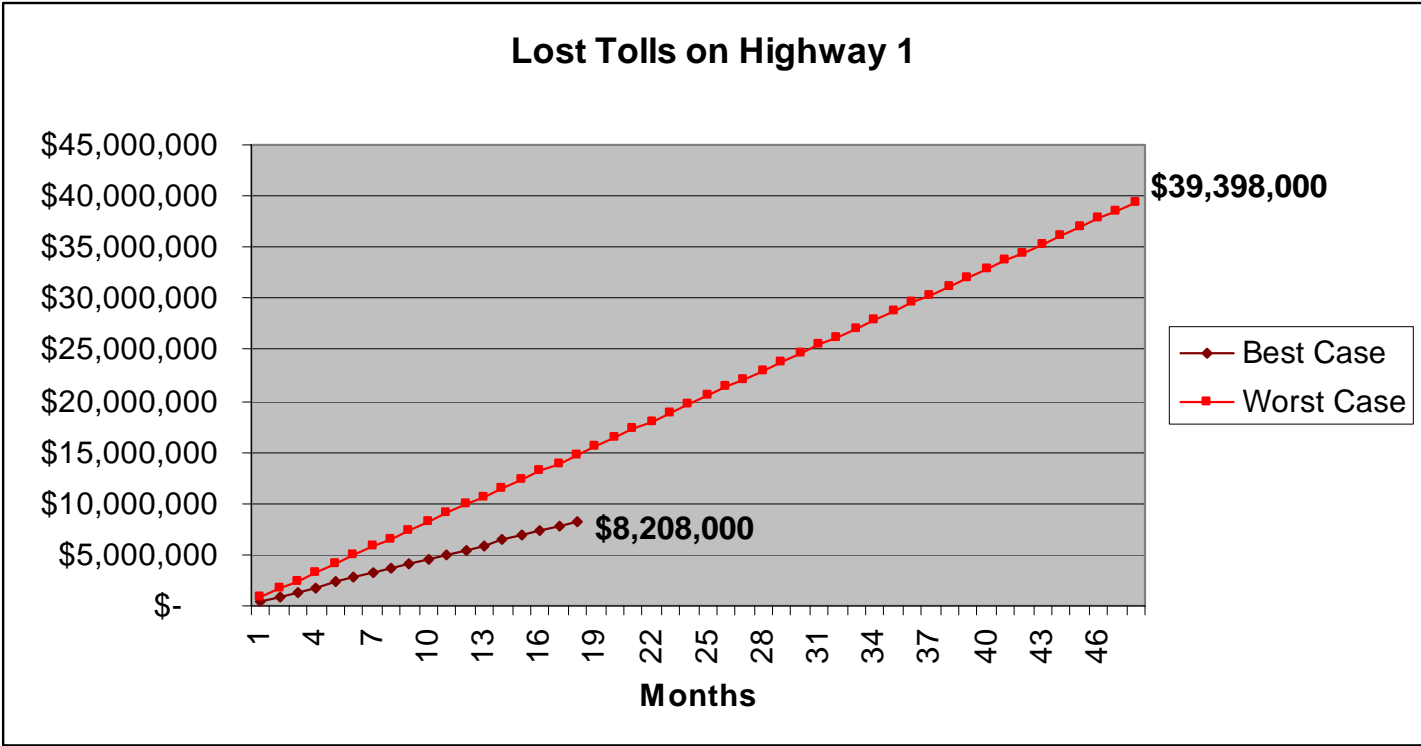
# Economic Impact

MMS royalty losses accrue at a rate between \$660K and \$830K per month, and could exceed \$40,000,000.



# Economic Impact

A range of other losses could be incurred, including loss of tolls on Highway 1.



# Economic Impact

**In total, economic impact could be devastating.  
*An ecological catastrophe could turn into an economic calamity.***

	<b>Base Case</b>	<b>Worst Case</b>
<b>Job Loss (LA)</b>	12,452	21,945
<b>Tax Loss (LA)</b>	\$ 151,658,991	\$ 702,820,523
<b>MMS Loss (LA)</b>	\$ 11,891,493	\$ 40,028,367
<b>Toll Loss</b>	\$ 8,208,000	\$ 39,398,400
<b><i>Total Revenue Loss</i></b>	<b>\$ 171,758,484</b>	<b>\$ 782,247,290</b>

- **Economic Impact of the Moratorium**



- **Potential Solutions to the Moratorium**

- **Economic Impact of the Oil Spill**

- **Positive Responses**

# Potential Solutions

## A solution is required that:

1. Makes personal and environmental safety of deep-water drilling a priority
2. Brings a coordinated and comprehensive systems-based approach to safety and management of drilling activities
3. Enhances well control systems, including new safeguards and protocols dealing with design, testing, operations, and training requirements, generally
4. Reevaluates the design, manufacturing, and implementation standards for BOPs, specifically
5. Reduces the potential for conflict of interest with inspectors
6. **Allows for a reduced economic impact to the US and Gulf South as compared to the current moratorium, while preserving necessary safety**

# Potential Solutions

## Immediate suggestions include:

1. Follow guidelines laid out in the recently issued notice to lessees in NTL No 2010-N05:
  - Examine well control system equipment to ensure it has been properly maintained and is capable of shutting-in the well during emergency situations. Ensure BOPs are able to perform and that ROV hot-stabs are function-tested and capable of activating BOPs
  - Review all rig drilling, casing, cementing, well abandonment, completion, and workover practices to ensure that well control is not compromised while the BOP is installed on the wellhead
  - Review all emergency shutdown and dynamic positioning procedures that interface with emergency well control operations
  - Ensure that all personnel involved in well operations are properly trained and capable of performing their tasks under both normal and emergency operations
  - Certify, in writing, that all of the above measures have been performed
2. *Compliance with NTL No 2010-N05 should be sufficient to resume drilling, especially for wells that do not penetrate hydrocarbon bearing zones and those that have surface BOP stacks*
3. Accelerate implementation of Gulf Coast Security Act, and invest resulting millions on high-priority remediation and job-creation projects

## Mid-term suggestions include:

1. Ensure MMS has the authority to address all concerns that arise through the ongoing studies being conducted by independent bodies – do not “gut” the agency
2. Further rule-making should be done in accordance with current practices, allowing sufficient time for consideration
3. Ensure MMS has the necessary resources to secure third-party assistance, if needed, so as to not to impede the industry during review and possible restructuring of MMS
4. Clearly separate the functions of royalty collection, perhaps moved to the Department of the Treasury, and rig inspections, which could continue to be operated by MMS
5. A Safety Inspector General could be established with delegated independent Safety Experts, stationed on each structure, at all times. These Safety Experts in would have the legal authority to override management in defense of the safety of the crews and the environment. Experts should be rotated every 30 days to avoid cozy relationships and enhance expertise

## Long-term suggestions include:

1. Develop a comprehensive blow-out plan specifically tailored to deepwater wells that is certified by an panel of experts from public, private, and academic organizations
2. Establish a ongoing, centralized “think tank” that could advise Safety Experts on complicated matters related to safety, management practices, potential environmental matters, etc.

- **Economic Impact of the Moratorium**
- **Potential Solutions to the Moratorium**



## **Economic Impact of the Oil Spill**

- **Positive Responses**

# Economic Impact of the Oil Spill

**The oil spill in the Gulf of Mexico is a highly complex event, in some ways more so than Hurricane Katrina.**

1. Event is on-going
2. Response is public / private hybrid (from legal, practical and moral standpoint)
3. Assessment and valuation of ecological damages is difficult
4. Impact of dispersants and amount/persistence of oil may not be known for years
5. The largest portion of the negative economic impacts may be caused by regulatory response, not event, itself

**Preliminary assessment indicated a range of sectors that could potentially be impacted.**

## **Negative Impact**

- Fisheries (closure)
  - Tourism and Recreation (closure, brand damage)
  - Transportation and Logistics (closure)
  - Chemical Manufacturing (logistics issues)
  - Oil and Gas (regulatory response)
- + *Ecological assets (wetlands damage)*

## **Mixed Impact / Unclear Impact**

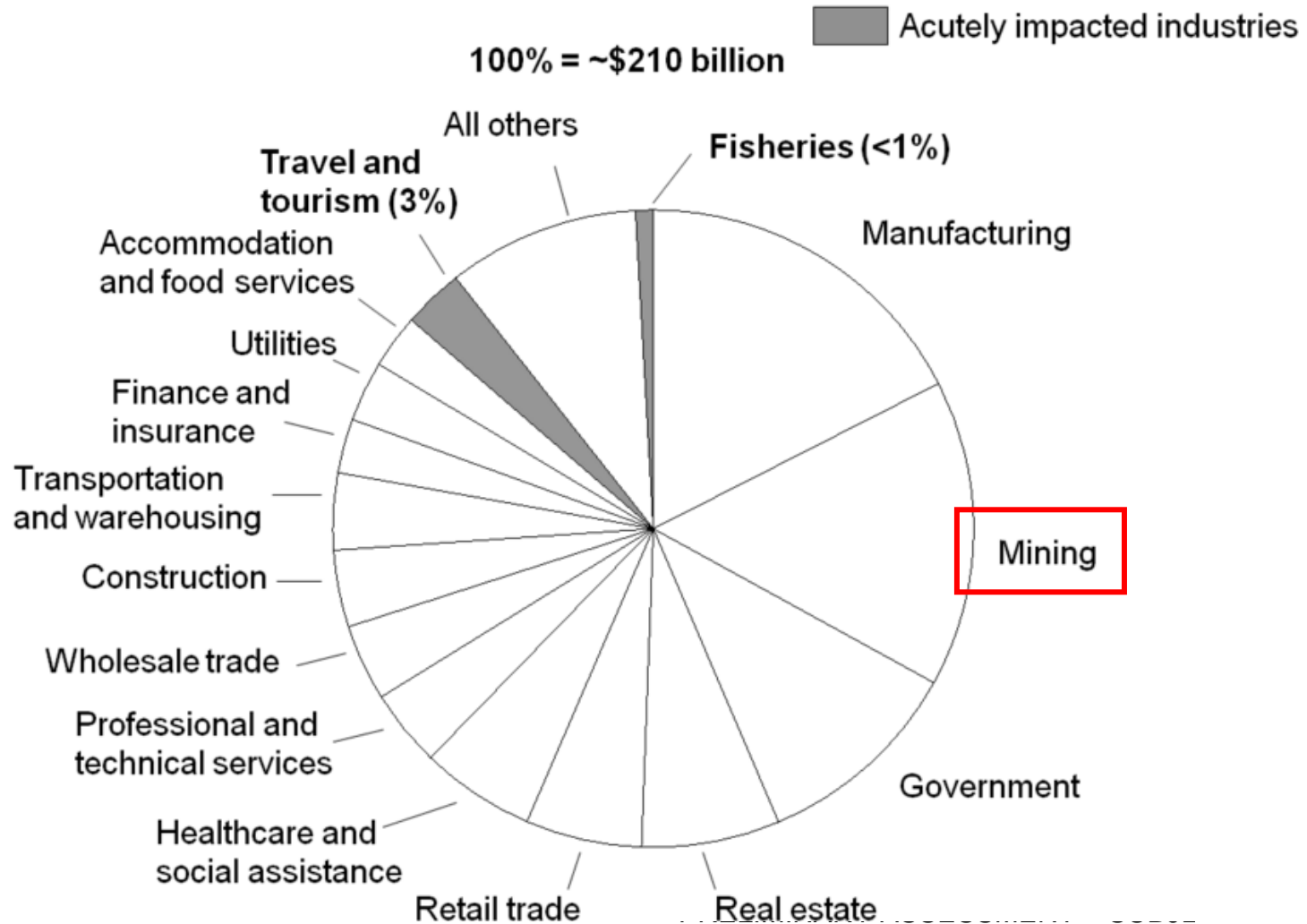
- Litigation

## **Positive Impact**

- Response and Clean-up Activity

# Economic Impact of the Oil Spill

## Industries of Louisiana



# Economic Impact of the Oil Spill

**In order to objectively quantify these impacts, GNO, Inc. is executing an Economic Impact Analysis.**

## Focus

- First order impacts, like fisheries
- Second order impacts, like processors
- Third order impacts, like tourism

## Scope

- Empirical analysis of impacts experienced to-date
- Modeling analysis of NPV of impacts expected in the future
- Current geographic scope is LA and GNO region; may be broadened

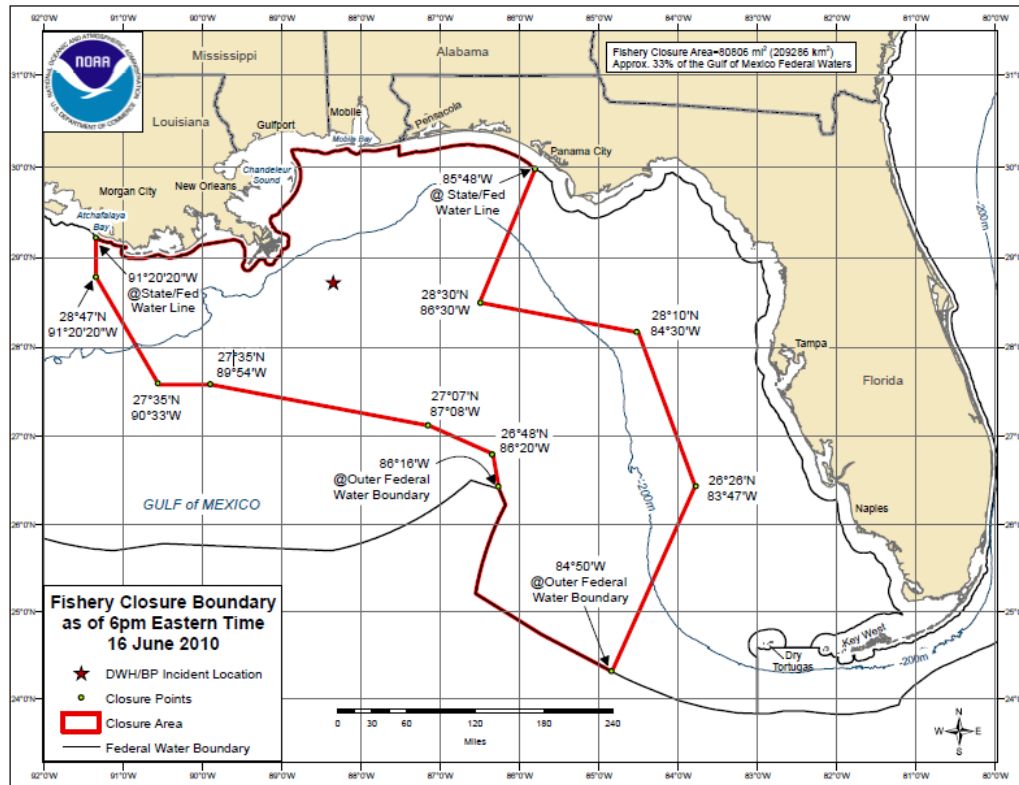
## Project Management

- Experienced global firm with disaster experience retained - IEM
- Preliminary results expected mid-July

# Economic Impact of the Oil Spill

**Moratorium aside, fisheries will likely be the most acutely impacted sector.**

## Fishing Closure



## Nature of Impact

- Fisheries bring \$500M / year to LA docks
- Total output of up to \$3.8B / year
- Coastal fisheries are 60% of total by value
- Threat not only due to closures, but also to fish stocks

## Impact Scenarios (lost output)

- Scenario 1: \$50 - \$175M
- Scenario 2: \$200 - \$775M
- Scenario 3: \$900M - \$3.3B

# Economic Impact of the Oil Spill

**Tourism could also be significantly impacted.**



## **Nature of Impact**

- Focus on fishing, hunting and eco-tourism
- Driven by damage to brand

## **Impact Scenarios (lost output)**

- Scenario 1: \$25 - \$50M
- Scenario 2: \$75 - \$175M
- Scenario 3: \$850M - \$1.7B

# Economic Impact of the Oil Spill



Impacts to shipping and transportation and chemical manufacturing are expected to be modest.

## Shipping

### Nature of Impact

- Increased costs from navigating around the slick
- Assumes Mississippi remains open

### Impact Scenarios

- Scenario 1: tbd
- Scenario 2: tbd
- Scenario 3: tbd

## Chemical Man'f

### Nature of Impact

- Potential increased transportation costs
- Potential benefit from manufacturing dispersant
- Significant negative impact only under severe transportation restrictions (unlikely)

### Impact Scenarios

- Scenario 1: \$10 - \$25M impact
- Scenario 2: \$25 - \$35M impact
- Scenario 3: \$75M - \$100M impact

# Economic Impact of the Oil Spill

Numerous industries are heavily or totally reliant upon business from the deep-water oil rigs, making the moratorium impact severe:

- Oilfield Services
- Machine Shops
- Industrial Equipment Renting
- Refineries
- Pipe Manufacturers
- Engineering Services
- Transportation
- Professional Services
- Catering
- Chemical Manufacturing
- Communication Systems
- Banking

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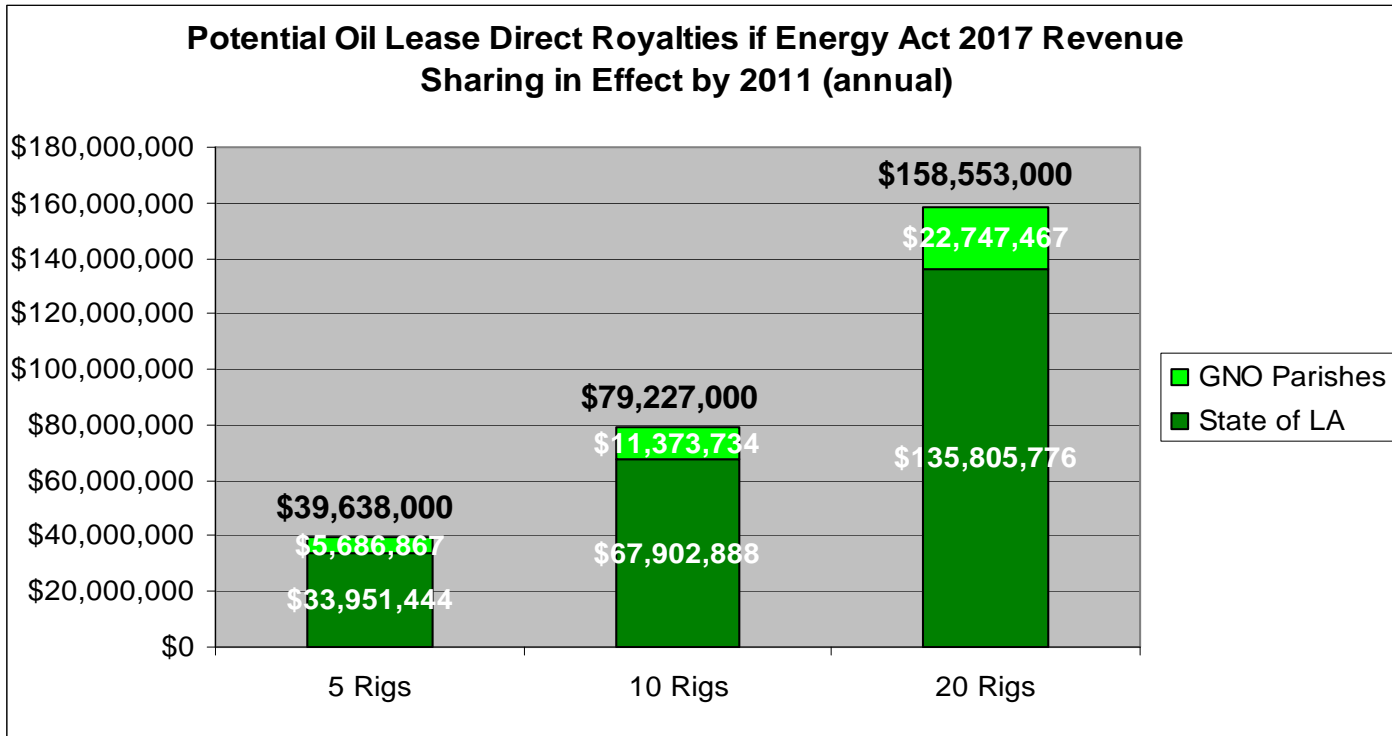
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- **Economic Impact of the Oil Spill**



## **Positive Responses**

# Positive Responses

If we bring forward Phase II of the 2006 Gulf of Mexico Security Act, between \$40M - \$159M of new annual revenue could be generated for LA.



# Positive Responses

**These significant new funds – which should increase over time – could be used for:**

- Coastal restoration
- Hurricane protection
- Disaster readiness
- Community assistance
- Development of S.E. Louisiana as global hub of sustainable research and development

# Positive Responses



GNO, Inc. has recently launched “GreenN.O.” to make our region a world-center of sustainable industries:

- Water management / hydrology
- Sustainable building
- Energy efficiency
- Renewable energy
- Disaster mitigation

**According to McKinsey, sustainable industries have the potential to create over 90,000 new jobs in Louisiana over the next 20 years.**



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