

STUDY TITLE: Social Impacts of the *Deepwater Horizon* Oil Spill on Coastal Communities along the US Gulf of Mexico

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CONTRACT NUMBER: M12AC00010

SPONSORING OCS REGION: Gulf of Mexico

APPLICABLE PLANNING AREA(S): Central Gulf of Mexico

FISCAL YEAR(S) OF PROJECT FUNDING: 2012–2013

COMPLETION DATE OF REPORT: July 2017

COSTS: \$479,742.00

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KEY WORDS: *Deepwater Horizon*, BP oil spill, Macondo blowout

ABSTRACT:

The *Deepwater Horizon* disaster began on April 20, 2010 with the blowout of the Macondo well in the US Gulf of Mexico, over 40 miles off the Louisiana coast. Drawing upon ethnographic fieldwork in coastal communities of Louisiana, Mississippi, and Alabama, this study explores the mid-range social effects of the *Deepwater Horizon* disaster from January 2013 through early 2016. It follows an earlier BOEM social impacts study that focused on the period April 2010–April 2012. This research documents how the social effects of the *Deepwater Horizon* disaster persisted throughout the study period, were differential across time and space, resisted quantification, and were expected to last well beyond the end of the study period. Many of the effects reported in the earlier period were still evident, layered upon storms, ongoing environmental change and coastal land loss, an economic downturn, a significant decline in the price of oil, a struggling seafood industry, and shifting demographics in coastal communities. Corresponding to each community's unique combination of demographic, economic, and sociocultural factors, the effects in each place were different. Attempts to quantify socioeconomic effects that obscured differential impacts of the disaster, and observers who did not understand or portray this diversity of impacts, exacerbated social effects for those still experiencing them as some residents and leaders declared the disaster and its effects to be over. Contributing to the chaos, research and funding, became a significant source of ongoing effects related to the oil disaster and are expected to continue into the future. The report concludes that, across the study region, social effects stemming from cumulative and differential impacts of the disaster and from continuing uncertainty persisted into early 2016 and were expected to continue into the future.

BACKGROUND: Because impacts of large spills are determined by their specific characteristics and the natural and human environments in which they occur, the effects of the *Deepwater Horizon* oil spill are not predictable from previous ones. This study built on the findings of an earlier BOEM study of the early socioeconomic impacts of the *Deepwater Horizon* oil spill and used ethnography and its proven strengths at documenting the unfolding, varied, and unique impacts of that event. In the first two years of the disaster, though some of its effects were immediately obvious and readily documented, others emerged more slowly. When the disaster began, the region in which it occurred was still recovering from recent severe hurricanes and flooding, with challenges facing the seafood industry, coastal land loss, and subsidence, and the recession that began at the end of 2007. The oil spill exacerbated some effects and created a new set of actors, resources, and responses. This study was designed to address conditions and questions detailed by the earlier research effort such as: What factors (such as livelihood and occupational opportunities, infrastructure, economic diversity, and connections to the offshore petroleum industry) influenced the nature and scope of the impacts? How did the spill and spill response affect those

who work in the principal industries of Gulf coastal communities, including but not limited to fishing, tourism, oil and gas, retail, and services? What were the mid- and long-term effects, to communities and involved groups and individuals, of financial compensation and litigation processes that occur over an extended period of time? What social and economic impacts of environmental restoration activities were evident following the spill? How did these impacts reverberate through the communities, and what aspects of household and community vulnerabilities and resilience exacerbated or mitigated their effects?

OBJECTIVES: The study was developed to describe and analyze direct and indirect socioeconomic consequences of the *Deepwater Horizon* disaster in the Gulf of Mexico region, with sufficient detail to address the spill's differential impacts on households, communities, and regions; with sufficient breadth to address the range of human endeavors and institutions that were affected and how these effects unfold over time; and with sufficient evidence, documentation, and care to serve as a reliable source of information and analysis in support of BOEM assessment and decision making and for other Federal and State institutions. Most broadly, the study was designed to contribute significantly to the general understanding of this uncommon and troubling event. The study had three objectives:

Identify and describe the social, economic, and cultural effects of the *Deepwater Horizon* oil spill on the coastal communities of east Texas, Louisiana, Mississippi, and Alabama.

Identify and describe the fundamental characteristics of the *Deepwater Horizon* oil spill that induce its social, economic, and cultural effects, noting similarities and differences to hurricanes Katrina and Rita and to other major spills.

To provide information through analysis of demographic and ethnographic data that is usable for BOEM and state and local agencies.

DESCRIPTION: To capture both the widespread and place-specific impacts of the *Deepwater Horizon* disaster, researchers returned to the five case study communities in southern Louisiana, Mississippi, and Alabama, which had been the focus of the earlier study, and the areas surrounding them. From east to west, the study communities were (1) Bayou La Batre and Mobile County, Alabama; (2) Biloxi and Harrison County, Mississippi; (3) Pointe-a-la-Hache, Empire, Port Sulphur, and Plaquemines Parish, Louisiana; (4) Larose Cut Off, and Lafourche Parish, Louisiana; and (5) Dulac and Terrebonne Parish, Louisiana. Ten ethnographers, supported by two community researchers, conducted the study in one to three month periods between January and November 2013, and between June and October 2015; most of the 2015 fieldwork took place between June and August. The short-term ethnographic research was supplemented by long interviews with formal and informal community leaders and others who could describe and reflect on the oil spill and its effects. The diversity in study communities continued to provide opportunities to look at the effects of multiple factors, from population and economic variables to pre-spill effects of Hurricane Katrina and post-spill recurrence of oil.

SIGNIFICANT CONCLUSIONS: Though debates continue about the nature, extent, and timespan of effects of the *Deepwater Horizon* spill on the economy, marine and estuarine ecosystems, and human health, as described in the study report, the social effects of the disaster persisted throughout the study period. Across the study communities, neither the duration nor severity of socioeconomic impacts from the spill was determined simply by the continued presence of oil. Indeed, people in all study communities were affected by the disaster, though those effects were conditioned by previous events and responses. Consequently, because each community has a unique combination of demographic, economic, and sociocultural factors, the effects in each place were different. Attempts to average the effects of any single variable—such as population change, per capita income, or changes in livelihood strategies—across communities risk rendering all effects invisible.

STUDY RESULTS: Except where the oil was visible and could be linked to the Macondo well, by 2015, residents and leaders had trouble isolating the effects of the BP disaster. Rather than attempting to segregate the effects of these different events, the study documents the ongoing effects of the *Deepwater Horizon* spill in their context.

Several examples illustrate the interconnections between effects and context. In East Biloxi, Mississippi, a community that had literally been wiped off the beach by Hurricane Katrina, outside investors took the opportunity to build casinos and large tourist enterprises. In addition to materially changing the place, these additions made it harder to see, physically or in statistics, what was happening to the people who

lived there and were still connected to the seafood industry. Likewise, in Larose, Louisiana, the commercial seafood industry has been dwarfed by the oil and gas and service companies, including several large shipyards. There, oil and gas-related employers tried to hang onto workers in the aftermath of the spill and suspension of drilling, but then suffered with the oil and gas downturn. In Bayou La Batre, shipbuilding and seafood have a more symbiotic relationship, each capitalizing on the others' presence. The economic woes of Larose and Bayou La Batre were alternately exacerbated and buffered by the shipyards. Larose, inside a ring levee, benefitted from new housing construction, while Biloxi, Bayou La Batre, and the communities of central Plaquemines Parish, all seriously damaged by Katrina, saw housing development move north, away from the coast. South Terrebonne Parish, represented by Dulac, which has remnants of fishing, seafood processing, and the oil and gas service industry, illustrates how the oil disaster intensified the downward spiral of coastal land loss, frequent storms, declining population, and loss of amenities such as schools and grocery stores. Central Plaquemines Parish, too, has experienced outmigration, but where past politics put Dulac inside the proposed levee system, most of Plaquemines Parish is outside protection. Due to its location, Plaquemines Parish continued to experience oiling on its shoreline, even five years after the *Deepwater Horizon* rig exploded. Such differential impacts of the disaster, coupled with reports from outsiders who did not understand or portray this diversity of impacts created social effects as residents and leaders responded to reports that attempted to paint the entire region with one brush and declared the effects to be over.

Research, and research funding, became a significant source of ongoing effects related to the oil disaster and will continue as such well into the future (the National Academy of Sciences program to support research and development, education and training, and environmental monitoring in the Gulf of Mexico has a 30-year lifespan). The political, legal, and economic ramifications of the results of the research, and the presence of researchers in the study areas, kept the spotlight on the people and topics involved. Topics under investigation broadened to include the fate of oil in the Gulf and the many factors—from ocean currents to microorganisms—that influence that fate. On some topics, the sheer number of programs, studies, and researchers, and the large volume of data generated by different researchers from different labs and institutions using different methods, made it difficult even for scientists to draw conclusions. Lack of solid data on other topics, such as human health effects from the spill, that were of great concern to coastal residents, resulted from both the lack of well-designed studies and the means to measure such effects. The unevenness of impacts and uncertainty about the future aggravated this situation, as study results that did not match residents' personal experiences elicited a range of response, from disdain to distrust, confusion, or—less often—an explanation based in thorough understanding of the scientific process. These circumstances, along with concerns that BP was influencing the information that reached the public by amplifying some study results and ignoring others, contributed to distrust of any research findings.

Across the study region, persistent effects of the disaster included the uncertainty, debates about the ongoing presence and effects of the Macondo oil, and discussions and decisions regarding how to spend settlement monies, along with the unevenness of those effects. Because much of the money associated with the disaster had yet to reach the people or communities at the time this study was completed, the effects of the disaster will continue into the future. In addition, the oil and gas industry continues to have a major economic, social, political, and cultural role in the region. With the downturn lingering, companies undergo new rounds of reorganization, downsizing, and layoffs, affecting individuals, households, and communities. Coastal erosion continues. Even with the money from the legal settlements and federal legislation, state programs, like the Louisiana Coastal Master Plans, will receive only a fraction of the funding needed to implement projects designed to address—though not stop—the loss of wetlands, inland freshwater bodies, and land. Here, too, local and state differences in legal mechanisms, such as the Louisiana state constitutional amendments that require certain monies to be used for coastal restoration and protection, help determine what is possible. Whether the resources generated by the disaster finally result in positive outcomes within the region remains to be seen.

STUDY PRODUCT(S): Austin, DE, Phaneuf VM, Luchetta J, Simms JR. 2021. Social impacts of the *Deepwater Horizon* oil spill on coastal communities along the US Gulf of Mexico. New Orleans, LA: US Department of the Interior, Bureau of Ocean Energy Management. 143 p. Contract No.: M12AC00010. Report No.: BOEM 2022-021.

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