Economic Impacts to Fisheries and Coastal Habitat

(April 30, 2010)

Has Sea Grant generated any preliminary economic impact estimates of the Deepwater Horizon oil spill for commercial and recreational fisheries of the Gulf of Mexico?

No. At this point, it is too early to provide estimates of the economic losses expected to be incurred as a result of the Deepwater Horizon spill. Numerous variables must be considered when estimating the economic impact of an oil spill on natural resources. Spill-related factors that remain largely unknown include: volume of the spill and ultimate duration of the leak; extent of geographic spread; and site-specific concentrations of accumulated oil at sea and landfall locations.

Fisheries-related factors that must be considered include: the intersection of traditional fishing areas (commercial and recreational) in relation to the spill and species-specific and season-specific variables related to reproduction and harvest. Finally, market-related factors must also be considered, including: potential supply disruptions and losses due to management-based closures and the potential for changes in consumer demand based on perceived consumption risks.

Will habitat and ecosystem service losses be accounted for in damage estimates?

In addition to commercial losses, impacts to habitat and ecosystem services areconsidered in the wake of major oil spills. Natural resource economists have developed alternative, "non-market" methods for estimating the replacement and service values of non-commercial flora and fauna. Much of this valuation is conducted as part of the Natural Resource Damage Assessment (NRDA) Process administered by the National Oceanic and Atmospheric Administration (NOAA). For additional information on the NRDA process, go to: http://www.darrp.noaa.gov/about/nrda.html

What are the major commercial fisheries of the region threatened by the spill?

The estuarine influence of the Mississippi River makes the northern Gulf of Mexico one of the world's most productive commercial fisheries. Dockside values in 2008 for the five U.S. states bordering the northern Gulf of Mexico exceeded $661.4 million. More than half of this value is attributable to the shrimp fishery, which accounted for more than $366.5 million in income to

harvesters in 2008. Additional fisheries of major economic importance to the region include: oysters ($60.2 million), crabs ($58.5 million) and menhaden ($64.3 million). Dockside fisheries landings and values are provided by state and species in Figure 1.

What about additional losses to seafood-dependent businesses?

It is important to note that dockside harvest values are only a part of the fisheries-dependent economy. These values must be adjusted to incorporate additional economic activities along the wholesale to retail market-chain continuum. The ultimate assessment of fisheries-related oil spill impacts will require consideration of losses not only to harvesters, but also to seafood dealers, processors, retailers and the tourism sector.

Economic multipliers ranging from 2X to 3X of dockside value are typically used by university economists to capture the broader suite of related business activities supported by domestic seafood landings. Much higher estimates, based on multipliers of 8X-10X, have recently been applied by consultants in recent state-based reports.

What are the major recreational fisheries of the region threatened by the spill?

The northern Gulf of Mexico supports a large number of recreational fisheries. Dozens of inshore species are harvested, but some of the most popular coastal species include spotted sea trout, red drum and southern flounder. In offshore waters, reef-dependent species of the snapper and grouper complex account the largest portion recreational landings. Migratory pelagic species such as tunas and billfish are targeted in depths beyond 100 fathoms.

According to the U.S. Fish and Wildlife Service, approximately 2.48 million anglers purchased marine fishing licenses in the five U.S. Gulf states in 2006. Many of these anglers rely on fishing guides and charter services to access coastal fisheries. In 2009, the Gulf region had more than 3,300 licensed charter boat captains (Figure 1). Sea Grant is currently conducting an economic survey of the recreational-for-hire sector in the U.S. Gulf of Mexico. Results of that survey will be available in late summer 2010 and should prove useful in gauging any losses resulting to this sector as a result of the Horizon oil spill.
http://library.fws.gov/Pubs/nat_survey2006.pdf

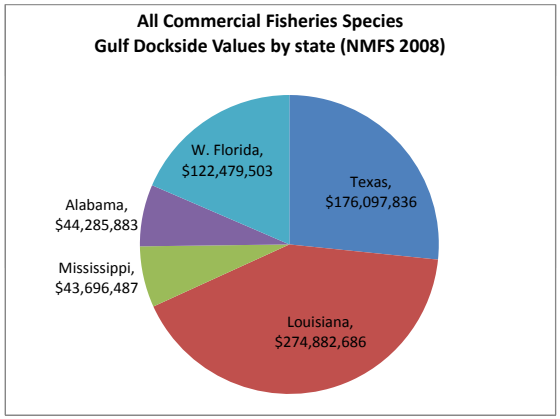
Where can I find more specific fisheries landings data?

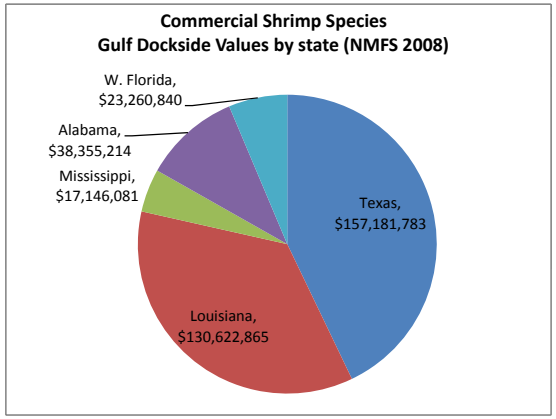
State and federal resource management agencies collect and maintain fisheries landings and license data at the county/parish level. Information for Louisiana is available through the Louisiana Department of Wildlife and Fisheries. Fisheries landings by parish are available for Louisiana through the LSU AgCenter's Summary of Agriculture and Natural Resources.
http://www2.lsuagcenter.com/agsummary/index.aspx

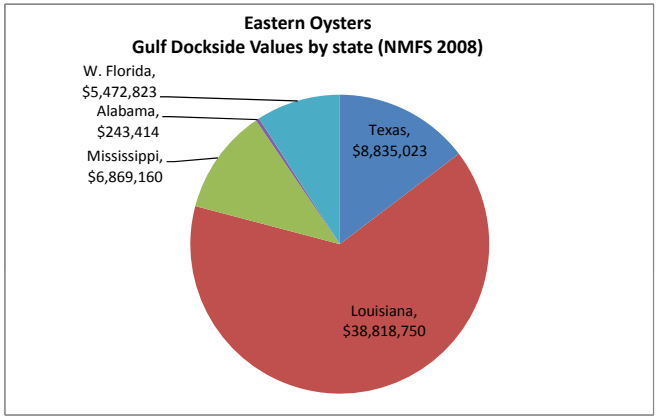
Dockside* fisheries landings by quantity and value for the U.S Gulf of Mexico (NMFS 2008)

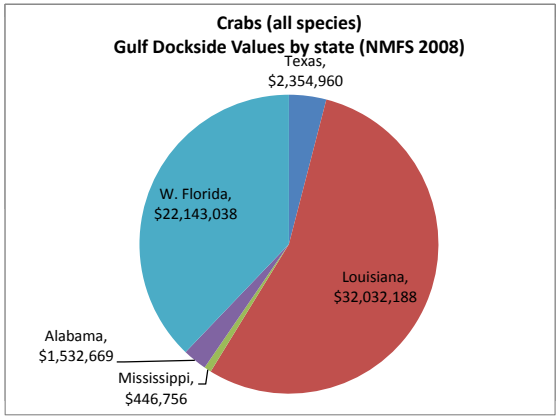
**Harvest values only, does not include economic multipliers for value added sales*

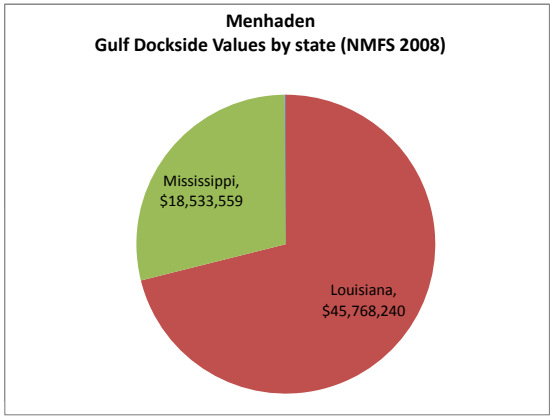
	All fisheries species		Shrimp (all species)		Eastern Oysters		Crabs (all species)		Menhaden		Recreational Fishing	
	lbs	$	lbs	$	lbs	$	lbs	$	lbs	$	Marine Anglers**	Charter captains***
Texas	73,048,128	$176,097,836	63,852,672	$157,181,783	2,679,207	$8,835,023	2,638,445	$2,354,960	0	0	1,147,000	1,025
Louisiana	918,469,857	$274,882,686	89,268,011	$130,622,865	12,778,311	$38,818,750	41,561,344	$32,032,188	738,092,100	$45,768,240	289,000	681
Mississippi	201,822,002	$43,696,487	8,570,081	$17,146,081	2,610,349	$6,869,160	450,037	$446,756	189,117,937	$18,533,559	66,000	72
Alabama	24,407,153	$44,285,883	17,154,274	$38,355,214	72,776	$243,414	1,798,705	$1,532,669	267,817	$59,245	134,000	165
W. Florida	60,008,730	$122,479,503	9,939,087	$23,260,840	2,501,475	$5,472,823	8,752,313	$22,143,038	39,288	$15,247	1,201,200	1,372
Totals	1,277,755,870	$661,442,395	188,784,125	$366,566,783	20,642,118	$60,239,170	55,200,844	$58,509,611	927,517,142	$64,376,291	2,837,200	3,315

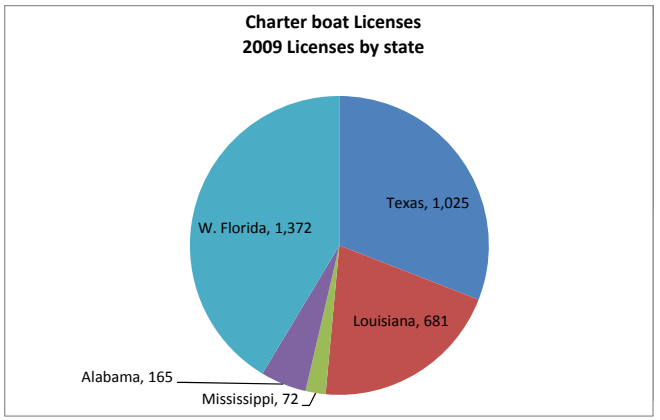












* NMFS Fisheries Statistics

** 2006 data (USFW Survey of Hunting, Fishing, and Wildlife -Associated Recreation)

*** 2009 data (State-based license sales)