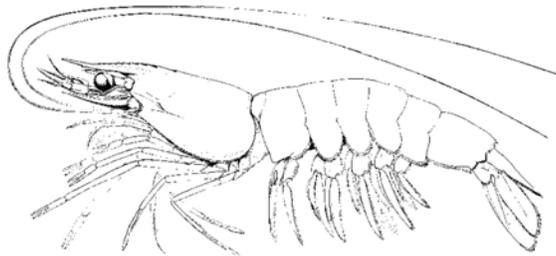


2011  
Economics of the Federal Gulf Shrimp Fishery  
Annual Report



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## Federal Gulf Shrimp Fishery

This report presents results of the Annual Economic Survey of Federal Gulf Shrimp Permit Holders for the calendar year 2011. The report provides fishermen, fishery managers, other constituents, and the public with an overview of the financial and economic health of the federal Gulf of Mexico shrimp fishery. The commercial shrimp fishery in the Gulf of Mexico is one of the most economically important fisheries in the Southeast region. In 2010, the fishery was materially affected by the Deepwater Horizon (DWH) oil spill and BP's various responses.

### Shrimp Landings and Revenue

In 2011, total landings of shrimp for human consumption in Gulf of Mexico ports were just under 139 million pounds (head-off weight) (Table 1). At an average ex-vessel price of \$3.11 per pound, total revenue was \$432 million. Gulf shrimp landings and revenue in 2011 exceeded 2010 numbers by 24% and 31%, respectively. The total number of vessels landing shrimp also increased by 17%. (The bait shrimp fishery in the Gulf is not accounted for in Table 1.)

Table 1: Total Gulf Shrimp Landings & Revenue by Vessel Permit Status

	No Federal Permit	Federal Permit	Total
Number of active vessels	4,057	1,180	5,237
Total landings (lbs, head off)	44 million	95 million	139 million
Total revenue (\$)	91 million	341 million	432 million
Average price (\$/lb)	2.09	3.58	3.11
% of total revenue	21.1%	78.9%	100%

### Permits and Vessels

Approximately 5,237 vessels participated in the Gulf shrimp fishery in 2011. Broadly, the Gulf's shrimp fleet consists of an inshore segment, very diverse and mostly active in state waters, and an offshore segment, largely active in federal waters and almost always using otter trawl gear. We delineate the two segments through ownership of the federal shrimp permit.

The commercial shrimp fleet that operates in federal waters of the Gulf is managed under the Gulf of Mexico Shrimp Fishery Management Plan, and a limited-access permit is required to harvest shrimp in federal waters. In 2011, there were approximately 1,578 vessels that held a federal Gulf shrimp permit---the SPGM-permitted fleet. Only about 1,180 of these actively landed Gulf shrimp in 2011; yet they still accounted for 78.9% of total ex-vessel revenue generated by the Gulf food shrimp fishery (Table 1). The non-federally-permitted fleet, about 4,057 vessels, generated only 21.1% of total food shrimp revenue, due to their smaller vessel sizes and a higher count/lower price shrimp product. Shrimp vessels operating offshore are usually larger, full-time, and more sophisticated from a business perspective. This report is focused on the federally-permitted Gulf shrimp fleet only.

Vessels in this fleet are, on average, 67 feet long, weigh 102 gross tons, are powered by 534 hp motor(s), and are 26 years old. Nearly three-quarter of the vessels have steel hulls and 57% use a freezer for refrigeration. The owners of these vessels reside predominantly in Texas (38%) and Louisiana (27%), followed by Florida (15%), Mississippi (8%), and Alabama (7%). Five percent of owners reside outside the Gulf of Mexico region.

# Annual Economic Survey of Federal Gulf Shrimp Permit Holders

## Data Collection

A two-page, self-administered, mail survey (OMB Control # 0648-0591) is sent annually to a third of the population of permit holders. The survey collects annual expenditures grouped into categories of variable costs (e.g., fuel, crew) and fixed costs (e.g., insurance, overhead). When combined with revenue from other data collections, the financial and economic status and performance of the industry can be documented. An earlier technical memorandum (NMFS-SEFSC-601) describes in detail the data collection methodology and should be consulted for details about the survey design, data processing, and definitions. The memorandum and the survey questionnaire are available at: [www.sefsc.noaa.gov/socialscience/shrimp.htm](http://www.sefsc.noaa.gov/socialscience/shrimp.htm)

The population of interest is composed of all vessels with an SPGM permit, including both active and inactive vessels. In early 2012, 576 vessels were randomly selected from the population, stratified by state, of approximately 1,578 vessels with permits to shrimp in federal waters of the Gulf. Of the 576 surveys that were sent out, 479 completed surveys were returned. After adjusting for 26 sampled vessels that were deemed ineligible because their permits were sold or terminated, a response rate of 87% was achieved (479/550). Due to problems linking cost and revenue datasets, the final number of observations used in the analyses is 456 (79% of the sample; 29% of the population).

## Results

The financial and economic analysis is based on an accounting framework of money flows and values associated with the productive activity of commercial shrimping. The results presented are vessel averages which apply to a typical or representative vessel in a given fleet. Results based on different fleet definitions provide different perspectives on the fishery. Some vessels owning federal Gulf shrimp permits are engaged in other fisheries, including the South Atlantic shrimp and non-shrimp fisheries. In this report, economic results are presented for four fleets (which are not mutually exclusive!):

- A - SPGM-permitted fleet: Commercial fishing vessels holding a federal Gulf shrimp permit
- B - Gulf shrimp fleet: Commercial shrimp vessel inactive or active in the Gulf shrimp fishery
- C - Active Gulf shrimp fleet: Shrimp vessel reporting landings in the Gulf shrimp fishery
- D - Inactive Gulf shrimp fleet: Idle commercial shrimp vessels not fishing in 2011

Results for other fleets are reported in the Appendix. In the appendix, results are presented in a standardized table format that links vessel characteristics and operations to simple financial statements, including balance sheet, cash flow, and income statements. Compared to the full SPGM-permitted fleet, the Gulf shrimp fleet excludes 19 vessels that are only active in non-shrimp fisheries and 9 vessels that are only active in the S. Atlantic shrimp fishery. Results are reported by State for the SPGM-permitted fleet, the Gulf shrimp fleet, and the active Gulf shrimp fleet, where Alabama and Mississippi are combined due to their small sample size. Results for the active Gulf shrimp fleet are also reported according to whether the vessel is operated by the owner or a hired captain and whether or not the captain is paid a separate share.

# **Economics of the Federal Gulf Shrimp Fishery**

## A. Economic Status of the SPGM-Permitted Fleet

In 2011, 1,578 vessels had a federal Gulf shrimp permit (SPGM). The results below are based on a random sample of 456 permits from this population with complete and usable surveys. Tabulated results for this fleet can be found in the Appendix, Table 3, column 1. The sample's vessel characteristics are not materially different from the population of vessels with Gulf shrimp permits (page 1). The geographic distribution of the permit owners' residence across Florida, Alabama and Mississippi, Louisiana, Texas, and outside the Gulf region (Other) is provided in Figure A1.

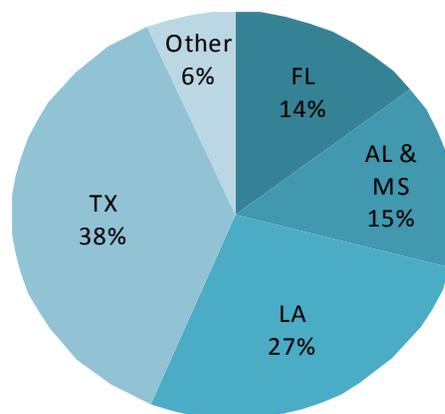


Figure A1: State of Residency of Owner

### Balance Sheet

The average market value of a vessel (including fishing permits) was \$292,467 in 2011, about \$50 thousand more than the original purchase price. The average vessel had \$41,219 of liabilities, and only 28% of the vessels had an outstanding loan. This implies an average equity of \$251,248 for each owner and a debt to equity ratio of 16%. Only 38% of the vessels had hull insurance. The average implicit value of a vessel's fishing permits was \$106,254. The high value largely reflects the ownership of the very valuable Atlantic scallop permit by a few vessels in the sample. The value of the limited-access federal Gulf shrimp permit might account for roughly a fifth of that value.

Table A1: Shrimp Landings, Price, and Revenue and Other Revenue per Vessel

	Landings (lbs, head-off)	Price (\$ per lb)	Revenue (\$)
Shrimp	69,069	3.54	244,640
Non-shrimp	-	-	56,799
Government payments (shrimp related)	-	-	7,171
DWH-related payments	-	-	7,816

### Revenue and Landings

In 2011, 83% of the vessels with SPGM permits landed shrimp. The average vessel landed 69 thousand pounds of shrimp, and the price per pound averaged \$3.54 (Table A1). Each permitted vessel spent, on average, 127 days fishing for Gulf shrimp, and we estimate that the fleet generated fishing revenue of \$8.47 (of which \$6.87 was from shrimp) for each gallon of fuel used (a measure of fuel efficiency).

In 2011, average annual revenue from all sources was \$316,425. As a percentage of revenue, shrimp landings accounted for 77%, non-shrimp landings for 18%, government payments for 2%, and payments related to DWH for 3% (Figure A2).

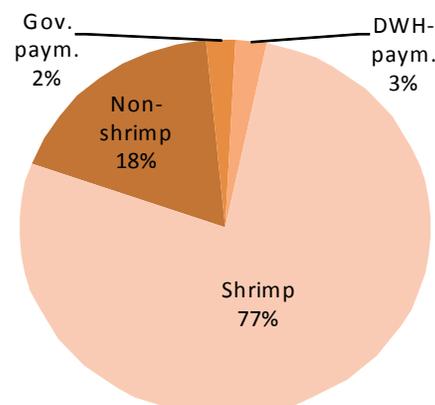


Figure A2: Revenue by Fishery

### Costs of Commercial Fishing

In 2011, average annual expenses for operations were \$287,633, where operations refer to commercial fishing activities. Operating expenses include both variable costs, usually paid on a trip basis, and fixed costs, such as insurance. The average vessel used 35,585

gallons of fuel, and the average gallon of fuel was purchased for \$3.19 in 2011. Fuel accounted for 39% of operating expenses, while other supplies accounted for 8%, leading to a total of 48% for non-labor variable costs (Figure A3). The expense for hired crew and captains was, on average, \$83,329, or 29% of expenses, which indicates the importance of the industry as a source of wage income. Of the vessels, 53% were owner operated, and we estimated that the average owner operator's contribution *as captain* was about \$16,500 per year ("opportunity cost of time"). Overall, labor accounted for 32% of operating expenses. Fixed costs accounted for the remaining 20% of operating expenses, split among maintenance (30%), major repairs (15%), estimated depreciation (22%), insurance (11%), and overhead (19%).

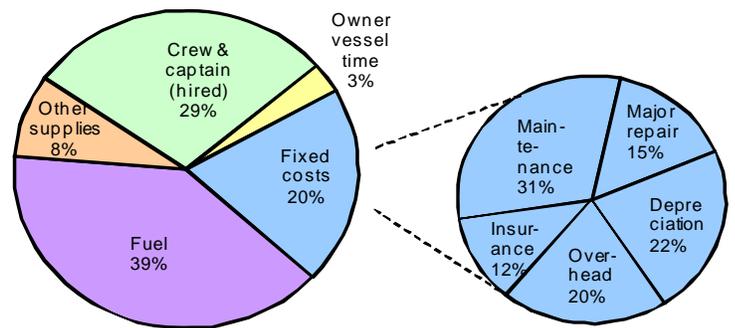


Figure A3: Percentage Breakup of Total Costs and Fixed Costs

Additional expenses in 2011, not counted as operating expenses, included interest payments of \$2,570 (financing costs), principal payments of \$8,020 (paying down debt), and new investment of \$4,577 (beyond maintenance and repair). Tabulated results for this fleet can be found in the Appendix, Table 3, column 1.

### Financial Performance

For the average vessel, the difference between total revenue and total expenses---the net cash flow---is on average \$35,280 (Figure A4). This is a measure of the industry's liquidity and should usually be positive in an established industry. It does not account for owner operators' labor contribution or the vessels' depreciation. The difference between revenue from commercial fishing operations and operating expenses---net revenue from operations---is on average \$13,805, which accounts for all costs of production. Finally, when financing costs are subtracted and non-operational income (government and DWH payments) is added, the average profit for each owner is \$26,222.

Figure A4: Net Cash Flow, Net Revenue, Profit

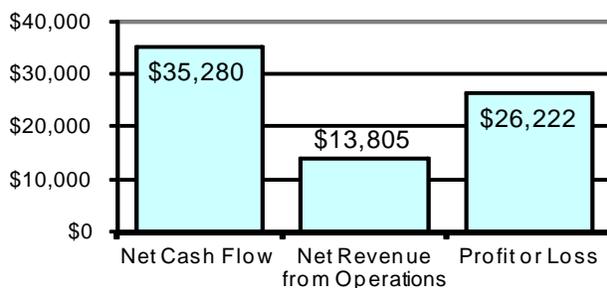
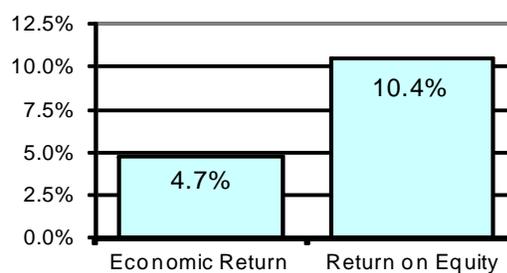


Figure A5: Financial Returns



An average economic return of 4.7% is calculated by dividing net operating revenue by the value of vessel assets (Figure A5). Economic return quantifies the productivity of a shrimp vessel's production from a societal perspective. In contrast, the return on equity is the primary concern of the individual owner. The return on equity of 10.4% is calculated by dividing the profit by the equity currently invested by the owner in the vessel.

Performance does vary substantially by state (Appendix, Table 4). On average, vessels from outside the Gulf region generate 82% of their revenue from non-shrimp landings and are generating a decent economic return (13.2%), while vessels from Louisiana are making losses (negative 10.3%). Vessels from Florida and Alabama and Mississippi are barely breaking even (0.9% and 1.6%), while Texas' vessels generate a slightly higher economic return (5.7%).

## B: Economic Status of the Gulf Shrimp Fleet (with SPGM permit)

This section reports results for the *Gulf shrimp* vessels only, by excluding permitted vessels belonging to the S. Atlantic shrimp fleet and non-shrimp fleets. Of the 1,578 vessels with SPGM permits, an estimated 1,481 were active or idle *Gulf shrimp* vessels. The results below are based on 428 complete and usable surveys randomly sampled from this population. Tabulated results for this fleet can be found in the Appendix, Table 3, column 4. The sample's vessel characteristics are not materially different from the population of vessels with Gulf shrimp permits (page 1). The geographic distribution of the permit owners' residence across Florida, Alabama and Mississippi, Louisiana, Texas, and outside the Gulf region (Other) is provided in Figure B1.

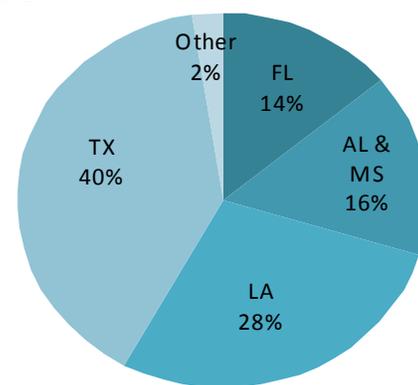


Figure B1: State of Residency of Owner

### Balance Sheet

The average market value of a vessel (including fishing permits) was \$202,475 in 2011, about \$34 thousand less than the original purchase price. The average vessel had \$36,010 of liabilities, and 28% of the vessels had an outstanding loan. This implies an average equity of \$166,465 for each owner and a debt to equity ratio of 22%. Only 37% of the vessels had hull insurance. However, because newer, more valuable vessels were more likely to have insurance, 48% of total asset value was insured. The average implicit value of a vessel's fishing permits was \$22,579, about a fifth of the value for the total SPGM-permitted fleet. Nonetheless, this estimate is probably influenced by the ownership of non-SPGM permits because SPGM permits were still being allowed to terminate by their owners throughout 2012. The median value of \$10,000 is closer to the anecdotally reported amount.

Table B1: Shrimp Landings, Price, and Revenue and Other Revenue per Vessel

	Landings (lbs, head-off)	Price (\$ per lb)	Revenue (\$)
Shrimp	71,583	3.53	252,728
Non-shrimp	-	-	3,364
Government payments (shrimp related)	-	-	7,490
DWH-related payments	-	-	8,056

### Revenue and Landings

In 2011, 86% of the permitted *Gulf shrimp* vessels landed shrimp. The average vessel landed 72 thousand pounds of shrimp, and the price per pound averaged \$3.53 (Table B1). Each permitted vessel spent, on average, 135 days fishing for Gulf shrimp, and we estimate that the fleet generated fishing revenue of \$7.21 for each gallon of fuel used (a measure of fuel efficiency).

In 2011, average annual revenue from all sources was \$271,638. As a percentage of revenue, shrimp landings accounted for 93%, non-shrimp landings for 1%, government payments for 3%, and payments related to DWH for 3% (Figure B2). This implies that the federally-permitted Gulf shrimp fleet is very specialized.

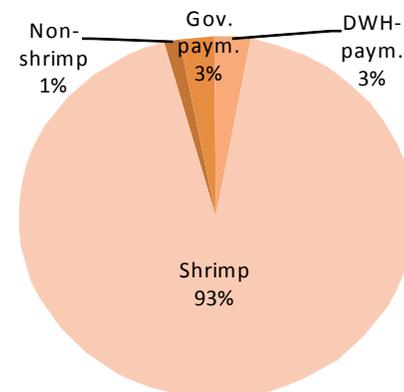


Figure B2: Revenue by Fishery

### Costs of Commercial Fishing

In 2011, average annual expenses for operations were \$256,395, where operations refer to commercial fishing activities. Operating expenses include both variable costs, usually paid on a trip basis, and fixed

costs, such as insurance. The average vessel used 35,524 gallons of fuel, and the average gallon of fuel was purchased for \$3.17 in 2011. Fuel accounted for 44% of operating expenses, while other supplies accounted for 8%, leading to a total of 52% for non-labor variable costs (Figure B3). The expense for hired crew and captains were on average \$61,861, or 24% of expenses, which indicates the importance of the industry as a source of wage income. Of the vessels, 54% were owner operated, and we estimate that the average owner operator's contribution *as captain* was about \$16,000 per year ("opportunity cost of time"). Overall, labor accounted for 28% of operating expenses. Fixed costs accounted for the remaining 20% of operating expenses, split among maintenance (32%), major repairs (16%), estimated depreciation (23%), insurance (10%), and overhead (19%).

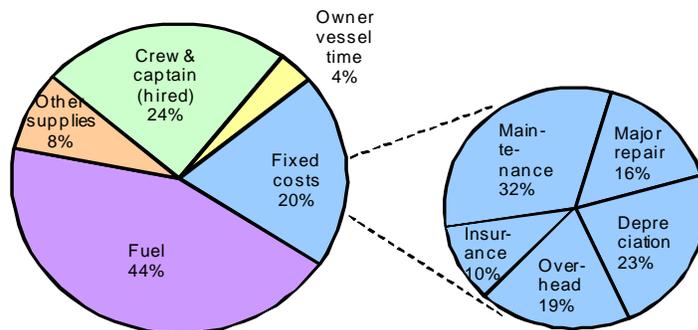


Figure B3: Percentage Breakup of Total Costs and Fixed Costs

Additional average expenses in 2011, not counted as operating expenses, included interest payments of \$2,197 (financing costs), principal payments of \$7,426 (paying down debt), and new investment of \$4,539 (beyond maintenance and repair). Tabulated results for this fleet can be found in the Appendix, Table 3, column 4.

### Financial Performance

For the average vessel, the difference between total revenue and total expenses---the net cash flow---is on average \$21,568 (Figure B4). This is a measure of the industry's liquidity and should usually be positive in an established industry. Yet it does not account for owner operators' labor contribution or the vessels' depreciation. The difference between revenue from commercial fishing operations and operating expenses---net revenue from operations---is on average negative \$304, which accounts for all costs of production. Finally, when financing costs are subtracted and non-operational income (government and DWH payments) is added, the average profit for each owner is \$13,046.

Figure B4: Net Cash Flow, Net Revenue, Profit

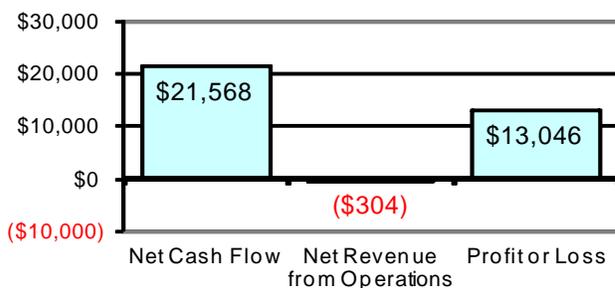
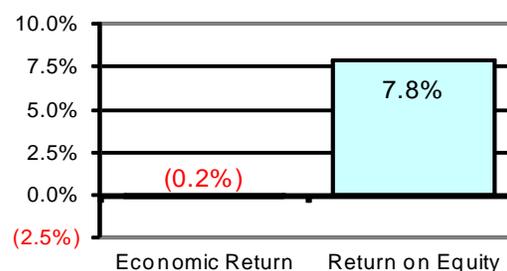


Figure B5: Financial Returns



An average economic return of negative 0.2% is calculated by dividing net operating revenue by the value of vessel assets (Figure B5). Economic return quantifies the productivity of a shrimp vessel's production from a societal perspective. In contrast, the return on equity is the primary concern of the individual owner. The return on equity of 7.8% is calculated by dividing the profit by the equity currently invested by the owner in the vessel.

Performance does vary substantially by state (Appendix, Table 5). On average, vessels from Texas generate somewhat of an economic return (5.7%); Alabama and Mississippi's vessels are barely breaking even (1.6%); Florida's vessels are making losses (negative 2.4%); and Louisiana vessels are making unsustainable losses (negative 10.3% return).

## C: Economic Status of the **Active** Gulf Shrimp Fleet (with SPGM permit)

In 2011, approximately 1,273 vessels with the SPGM permit landed shrimp in Gulf ports. The results below are based on 368 complete and usable surveys randomly sampled from the population. Tabulated results for this fleet can be found in the Appendix, Table 6, column 1. The sample's vessel characteristics are not materially different from the population of vessels with Gulf shrimp permits (page 1). The geographic distribution of the permit owners' residence across Florida, Alabama and Mississippi, Louisiana, Texas, and outside the Gulf region (Other) is provided in Figure C1.

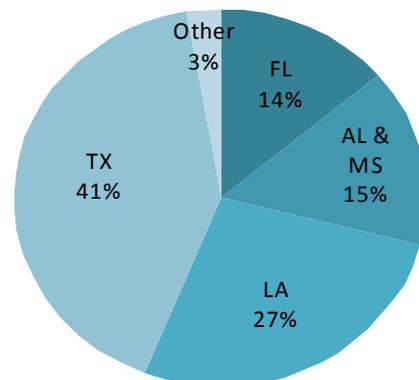


Figure C1: State of Residency of Owner

### Balance Sheet

The average market value of a vessel (including fishing permits) was \$224,252 in 2011, about \$39 thousand less than the original purchase price. The average vessel had \$40,971 of liabilities, and 32% of the vessels had an outstanding loan. This implies an average equity of \$183,281 for each owner and a debt to equity ratio of 22%. Only 42% of the vessels had hull insurance. However, because newer, more valuable vessels were more likely to have insurance, 50% of total asset value was insured. The implicit permit value among the active Gulf shrimp fleet was \$23,678, or less than a fourth of the value for the SPGM-permitted fleet. Nonetheless, this estimate is probably influenced by the ownership of non-SPGM permits because SPGM permits were still being allowed to terminate by their owners throughout 2012. The median value of \$10,000 is closer to the anecdotally reported amount.

Table C1: Shrimp Landings, Price, and Revenue and Other Revenue per Vessel

	Landings (lbs, head-off)	Price (\$ per lb)	Revenue (\$)
Shrimp	83,254	3.53	293,934
Non-shrimp	-	-	3,905
Government payments (shrimp related)	-	-	8,462
DWH-related payments	-	-	9,193

### Revenue and Landings

In 2011, by definition, 100% of the active permitted Gulf shrimp fleet landed shrimp. The average vessel landed 83 thousand pounds of shrimp, and the price per pound averaged \$3.53 (Table C1). Each permitted vessel spent, on average, 160 days fishing for Gulf shrimp, and we estimate that the fleet generated fishing revenue of \$7.21 for each gallon of fuel used (a measure of fuel efficiency).

In 2011, average annual revenue from all sources was \$315,494. As a percentage of revenue, shrimp landings accounted for 93%, government payments for 3%, payments related to DWH for 3% and non-shrimp landings were negligible (just over 1%) (Figure C2). This implies that the active federally-permitted Gulf shrimp fleet is very specialized, with very few vessels catching shrimp and non-shrimp in the same year.

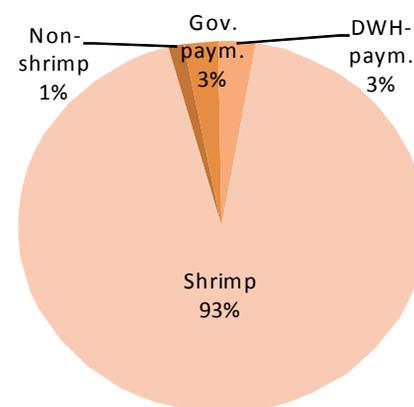


Figure C2: Revenue by Fishery

### Costs of Commercial Fishing

In 2011, average annual expenses for operations were \$296,465, where operations refer to commercial fishing activities. Operating expenses include both variable costs, usually paid on a trip basis, and fixed

costs, such as insurance. The average vessel used 41,312 gallons of fuel, and the average gallon of fuel was purchased for \$3.17 in 2011. Fuel accounted for 44% of operating expenses, while other supplies accounted for 8%, leading to a total of 52% for non-labor variable costs (Figure C3). The expense for hired crew and captains was on average \$71,947, or 24% of expenses, which indicates the importance of the industry as a source of wage income. Of the vessels, 53% were owner operated, and we estimate that the average owner operator's contribution *as captain* was about \$19,000 per year ("opportunity cost of time"). Overall, labor accounted for 28% of operating expenses. Fixed costs accounted for the remaining 20% of operating expenses, split among maintenance (32%), major repairs (16%), estimated depreciation (22%), insurance (11%), and overhead (19%).

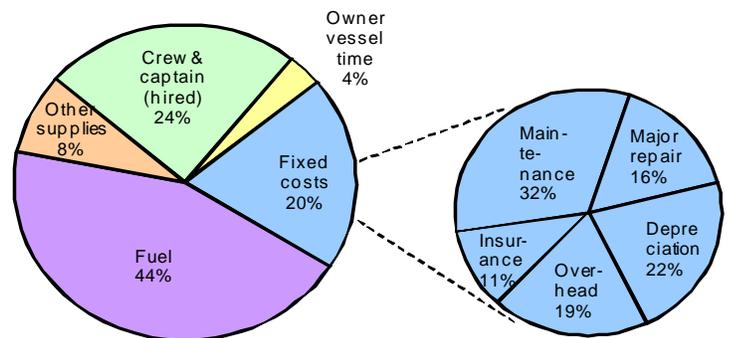


Figure C3: Percentage Breakup of Total Costs and Fixed Costs

Additional expenses in 2011, not counted as operating expenses, included interest payments of \$2,548 (financing costs), principal payments of \$8,637 (paying down debt), and new investment of \$5,037 (beyond maintenance and repair). Tabulated results for this fleet can be found in the Appendix, Table 6, column 1.

### Financial Performance

For the average vessel, the difference between total revenue and total expenses---the net cash flow---is on average \$25,841 (Figure C4). This is a measure of the industry's liquidity and should usually be positive in an established industry. Yet it does not account for owner operators' labor contribution or the vessels' depreciation. The difference between revenue from commercial fishing operations and operating expenses---net revenue from operations---is on average \$1,373, which accounts for all costs of production. Finally, when financing costs are subtracted and non-operational income (government and DWH payments) is added, the average profit for each owner is \$16,481.

Figure C4: Net Cash Flow, Net Revenue, Profit

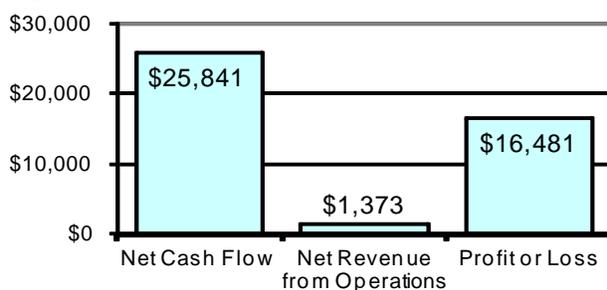


Figure C5: Financial Returns



An average economic return of 0.6% is calculated by dividing net operating revenue by the value of vessel assets (Figure C5). Economic return quantifies the productivity of a shrimp vessel's production from a societal perspective. In contrast, the return on equity is the primary concern of the individual owner. The return on equity of 9.0% is calculated by dividing the profit by the equity currently invested by the owner in the vessel.

Performance does vary substantially by state (Appendix, Table 6). On average, vessels from Texas generate somewhat of an economic return (6.5%); vessels from Alabama and Mississippi and Florida are roughly breaking even (2.1% and negative 1.3%, respectively); and Louisiana vessels are making unsustainable losses (negative 9.7%).

## D: Economic Status of the **Inactive** Gulf Shrimp Fleet (with SPGM permit)

This section reports results for inactive commercial shrimping vessels in the Gulf. Of the estimated 1,481 vessels in the federally-permitted *Gulf shrimp* fleet, approximately 208 did not report any landings. The results below are based on 60 complete and usable surveys randomly sampled from the population.. Due to the limited sample size, caution interpreting the numbers is warranted. Tabulated results for this fleet can be found in the Appendix, Table 5, column 5.

Average vessel characteristics of the sample of inactive vessels differ materially from the overall population of vessels with Gulf shrimp permits (page 1). The inactive vessels average 48 feet long; 19 feet shorter than the population average. They also are on average 3 years older (built in 1984) and much less likely to be made of steel or use freezers as refrigeration. The geographic distribution of the permit owners' residence across Florida, Alabama and Mississippi, Louisiana, and Texas is provided in Figure D1. The distribution of the inactive Gulf shrimp vessels across the states is roughly proportional to the active vessels---with Louisiana somewhat over- and Texas somewhat under-represented among the inactive vessels.

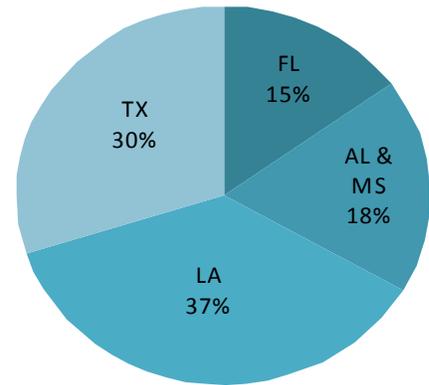


Figure D1: State of Residency of Owner

### Balance Sheet

The average market value of a vessel (including fishing permits) was \$68,910 in 2011, only about \$2 thousand less than the original purchase price. The average vessel only had \$5,580 of liabilities as only 3% of the vessels had an outstanding loan. This implies an average equity of \$63,330 for each owner and a debt to equity ratio of 9%. Only 3% of the vessels had hull insurance. The average implicit value of a vessel's fishing permits was \$13,423. The vessel market value and purchase price are significantly less than for the active fleet, as is the owner's equity and the implicit permit price.

### Revenue and Landings

In 2011, by definition, none of the inactive permitted Gulf shrimp fleet had any commercial landings. The only source of revenue was average government payments of \$1,528 and DWH-related payments of \$1,083.

### Costs

In 2011, average annual expenses for operations were \$10,635, where operations refer to commercial fishing activities. Operating expenses include both variable costs, usually paid on a trip basis, and fixed costs, such as insurance. For the inactive fleet the activity amounts to the maintenance of fishing capacity. The average inactive vessel used 19 gallons of fuel, and the average gallon of fuel was purchased for \$3.73 in 2011.

Fuel accounted for 0.7% of operating expenses, while other supplies accounted for 0.2%, leading to a total of less than 1% for non-labor variable costs (Figure D3). There were no expenses for hired crew and captains. Of the vessels, 55% were owner operated (in principle). Fixed costs accounted for the remaining 99% of operating expenses, split among maintenance (17%), major repairs (22%), estimated depreciation (46%), insurance (4%), and overhead (11%).

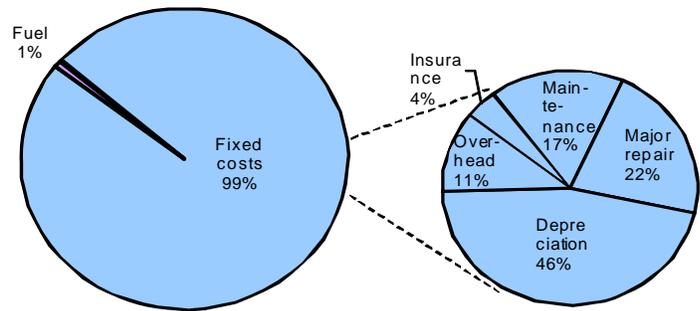


Figure D3: Percentage Breakup of Total Costs and Fixed Costs

Additional expenses in 2011, not counted as operating expenses, included interest payments of \$46 (financing costs) and new investment of \$1,483 (beyond maintenance and repair). Tabulated results for this fleet can be found in the Appendix, Table 5, column 5.

### Financial Performance

For the average vessel, the difference between total revenue and total expenses---the net cash flow---is on average negative \$4,640 (Figure D4). The difference between revenue from commercial fishing operations and operating expenses---net revenue from operations---is on average negative \$10,590, which accounts for all costs of production. Finally, when financing costs are subtracted and non-operational income (government and DWH payments) is added, the average loss for each owner is \$8,024.

Figure D4: Net Cash Flow, Net Revenue, Profit

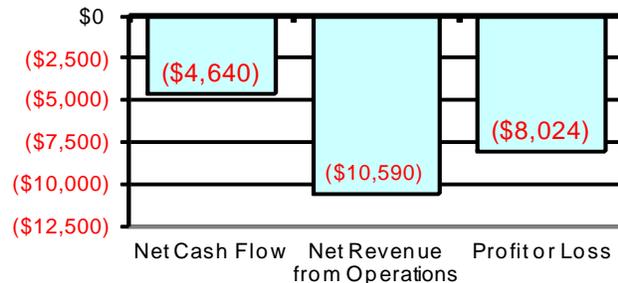
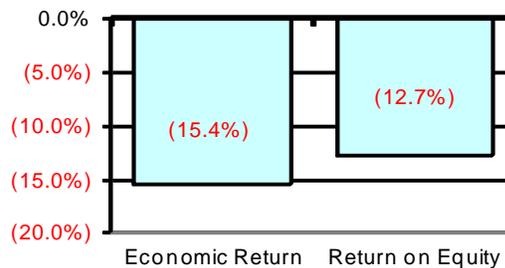


Figure D5: Financial Returns



An average economic return of negative 15.4% is calculated by dividing net operating revenue by the value of vessel assets (Figure D5). Economic return quantifies the productivity of a shrimp vessel's production from a societal perspective. In contrast, the return on equity is the primary concern of the individual owner. The return on equity of negative 12.7% is calculated by dividing the loss by the equity currently invested by the owner in the vessel.

The sample size is too low to warrant a breakout by state.

## Summary

The economic data is collected to provide an overview of the financial and economic health of the federal Gulf of Mexico shrimp fishery. The economic condition of “the fishery” depends on how the population is defined, i.e., which vessel are included and which are not included in the “fleet”. For the vessels in the SPGM-permitted fleet, the Gulf shrimp fleet, the active Gulf shrimp fleet, and the State sub-fleets of the latter, the average net cash flow was substantially positive (Table 2). We would generally expect to find a positive cash flow. Commercial operations with a negative cash flow face an imminent liquidity problem. Unless they have access to some outside sources of cash, they will be unable to pay their bills and be forced into bankruptcy, eventually to sell or lose their vessel and permit. For inactive vessels the negative cash flow (negative \$5 thousand) seems reasonable and consistent with previous years.

Table 2: Financial Results for the Average SPGM-permitted Vessel by Fleets (thousand dollars)

	# of Obs.	Assets	Equity	Net Cash Flow	Net Rev. from Operations	Profit or Loss	Economic Return	Return on Equity
SPGM-Permitted Fleet	456	292	251	35	14	26	4.7%	10.4%
Gulf Shrimp Fleet	428	202	166	22	0	13	(0.2%)	7.8%
Active Gulf Shrimp Fleet	368	224	183	26	1	16	0.6%	9.0%
Inactive Gulf Shrimp Fleet	60	69	63	(5)	(11)	(8)	(15.4%)	(12.7%)
<u>Active Gulf Shrimp Fleet in:</u>								
Florida	51	167	136	21	(2)	7	(1.3%)	5.1%
Alabama and Mississippi	56	357	279	31	8	23	2.1%	8.4%
Louisiana	99	208	186	21	(20)	3	(9.7%)	1.4%
Texas	152	203	161	29	13	26	6.5%	16.2%

Unlike the positive cash flow, once all costs are considered in the income statement, the average net revenues and returns indicate that the Gulf shrimp fleet and its active component basically breakeven from an economic perspective. Only the SPGM-permitted fleet---all vessels that own a SPGM permit---generates, on average, positive net revenues and returns. But these profits, on average, are being made by vessels active in non-shrimp fisheries and not active in the Gulf shrimp fishery. An average economic return of 0.6% for the active Gulf shrimp fleet on the substantial financial and entrepreneurial capital invested in the average shrimping enterprise depicts an unhealthy industry. The acceptable average return on equity of 9% by this fleet is due primarily to significant government and DWH-related payments.

In summary, the results indicate that the commercial harvest of Gulf shrimp is currently, on average, not or barely profitable activity. These results are averages and hence hide the variation that clearly exists within all fleets. Many further caveats apply to these results, including the general difficulty of collecting economic data. Hence the results should only be viewed as tentative indicators of the general economic situation of the industry.

## **Appendix**

## Data Tables

Table 3: F&E Results: Averages for the SPGM-permitted Fleet by Fishery (2011)

	SPGM Permit	SPGM Permit Fleet		
	Fleet	Other Fish <sup>1</sup>	S. Atlantic Shrimp <sup>1</sup>	Gulf Shrimp
# of Observations	456	19	9	428
<b><u>Vessel Characteristics</u></b>				
Length (feet)	66	67	73	66
Gross tons	99	99	109	99
Horse power	524	555	543	522
Year built	1987	1988	1987	1987
Hull material - Steel	71%	63%	89%	71%
Refrigeration - Freezer	57%	16%	67%	59%
State of Owner - Florida	14%	5%	56%	14%
State of Owner - Alabama or Mississippi	15%	0%	0%	16%
State of Owner - Louisiana	27%	11%	0%	28%
State of Owner - Texas	38%	5%	0%	40%
State of Owner - Other	6%	79%	44%	2%
<b><u>Balance Sheet (end of 2011)</u></b>				
<b>Assets</b> - Market value of vessel and permit	<b>\$292,467</b>	<b>\$2,220,024</b>	<b>\$502,778</b>	<b>\$202,475</b>
<i>Original value of vessel (purchase price)</i>	<i>\$242,617</i>	<i>\$404,500</i>	<i>\$207,111</i>	<i>\$236,177</i>
<i>Implicit permit value</i>	<i>\$106,254</i>	<i>\$1,843,765</i>	<i>\$221,250</i>	<i>\$22,579</i>
<b>Liabilities</b> - Loan on vessel	<b>\$41,219</b>	<b>\$178,083</b>	<b>\$0</b>	<b>\$36,010</b>
<i>% of vessels with loan</i>	<i>28%</i>	<i>37%</i>	<i>0%</i>	<i>28%</i>
<b>Equity</b> - Owner's equity in vessel	<b>\$251,248</b>	<b>\$2,041,941</b>	<b>\$502,778</b>	<b>\$166,465</b>
<i>Insurance coverage (% of vessels / % of assets)</i>	<i>38% / 40%</i>	<i>63% / 22%</i>	<i>56% / 43%</i>	<i>37% / 48%</i>
<b><u>Vessel Operation (2011)</u></b>				
Owner-operator	53%	26%	67%	54%
Actively shrimping	83%	0%	100%	86%
Days at sea - Gulf shrimping	127	-	-	135
Shrimp landed (pounds)	69,069	0	95,366	71,583
Fuel use (gallons)	35,585	34,205	41,426	35,524
<b><u>Fleet Averages</u></b>				
Shrimp price (\$ per pound)	3.54	-	3.95	3.53
Fuel price (\$ per gallon)	3.19	3.60	3.27	3.17
Fuel efficiency I - Shrimp pounds per gallon	1.9	-	2.3	2.0
Fuel efficiency II - Shrimp revenue per gallon	6.87	-	9.09	7.11

(in USD unless otherwise noted)	SPGM Permit	SPGM Permit Fleet		
	Fleet	Other Fish <sup>1</sup>	S. Atlantic Shrimp <sup>1</sup>	Gulf Shrimp
# of Observations	456	19	9	428
<b><u>Cash Flow (2011)</u></b>				
<b>Inflow - Total</b>	<b>316,425</b>	<b>1,220,602</b>	<b>537,488</b>	<b>271,638</b>
Shrimp revenue	244,640	0	376,449	252,728
Non-shrimp revenue	56,799	1,214,550	153,792	3,364
Government payments received (shrimp related)	7,171	1,263	4,469	7,490
DWH-related payments received	7,816	4,789	2,778	8,056
<b>Outflow - Total</b>	<b>281,146</b>	<b>907,596</b>	<b>436,441</b>	<b>250,071</b>
Fuel	113,359	123,045	135,343	112,467
Other supplies	24,227	83,274	42,355	21,225
Crew & captain (hired)	83,329	523,015	176,009	61,861
Regular maintenance (vessel and gear)	17,941	40,081	29,111	16,723
Major repair and haul-out	8,778	14,026	16,897	8,375
Insurance	6,679	32,141	12,836	5,420
Overhead	11,664	49,231	19,191	9,838
Interest payments made (on vessel loans)	2,570	12,199	0	2,197
Principal payments made (on vessel loans)	8,020	25,211	0	7,426
New investments and upgrades (in vessel)	4,577	5,372	4,699	4,539
<b>Net Cash Flow (excluding taxes)</b>	<b>35,280</b>	<b>313,007</b>	<b>101,047</b>	<b>21,568</b>
<b><u>Non-Cash Cost Estimates (2011)</u></b>				
Owner's vessel time	8,739	1,233	23,355	8,765
Depreciation	12,916	40,220	12,043	11,722
<b><u>Income Statement (2011)</u></b>				
<b>Revenue from Operations</b>	<b>301,438</b>	<b>1,214,550</b>	<b>530,241</b>	<b>256,092</b>
<b>Costs of Operations</b>	<b>287,633</b>	<b>906,267</b>	<b>467,139</b>	<b>256,395</b>
<i>Variable costs - Non-Labor (fuel, supplies)</i>	<i>47.8%</i>	<i>22.8%</i>	<i>38.0%</i>	<i>52.1%</i>
<i>Variable costs - Labor (hired, owner)</i>	<i>32.0%</i>	<i>57.8%</i>	<i>42.7%</i>	<i>27.5%</i>
<i>Fixed costs (maint., repair, insure, overh., depreci.)</i>	<i>20.2%</i>	<i>19.4%</i>	<i>19.3%</i>	<i>20.3%</i>
<b>Net Revenue from Operations</b>	<b>13,805</b>	<b>308,283</b>	<b>63,102</b>	<b>(304)</b>
<b>Profit or Loss (before tax)</b>	<b>26,222</b>	<b>302,136</b>	<b>70,349</b>	<b>13,046</b>
<b><u>Fleet Returns (2011)</u></b>				
Economic Return	4.7%	13.9%	12.6%	(0.2%)
Return on Equity	10.4%	14.8%	14.0%	7.8%

<sup>1</sup> These columns provide information on how vessels with federal Gulf shrimp permits but active in other fisheries are doing. They are in no way representative of these other fisheries. A companion report for the federal South Atlantic shrimp fisheries is available.

Table 4: F&E Results: Averages for the SPGM-permitted Fleet by State (2011)

	SPGM Permit Fleet				
	<u>FL</u>	<u>AL+MS</u>	<u>LA</u>	<u>TX</u>	<u>Other</u>
# of Observations	66	67	123	171	29
<b><u>Vessel Characteristics</u></b>					
Length (feet)	59	68	60	72	74
Gross tons	79	109	73	120	116
Horse power	432	578	460	566	626
Year built	1983	1990	1989	1986	1990
Hull material - Steel	29%	72%	66%	90%	79%
Refrigeration - Freezer	50%	58%	28%	84%	41%
State of Owner - Florida	100%	0%	0%	0%	0%
State of Owner - Alabama or Mississippi	0%	100%	0%	0%	0%
State of Owner - Louisiana	0%	0%	100%	0%	0%
State of Owner - Texas	0%	0%	0%	100%	0%
State of Owner - Other	0%	0%	0%	0%	100%
<b><u>Balance Sheet (end of 2011)</u></b>					
<b>Assets</b> - Market value of vessel and permit	<b>\$158,558</b>	<b>\$307,538</b>	<b>\$179,439</b>	<b>\$189,404</b>	<b>\$1,649,512</b>
<i>Original value of vessel (purchase price)</i>	\$173,639	\$349,401	\$185,705	\$247,354	\$366,345
<i>Implicit permit value</i>	\$6,852	\$31,361	\$21,776	\$25,198	\$1,331,980
<b>Liabilities</b> - Loan on vessel	<b>\$25,554</b>	<b>\$64,955</b>	<b>\$17,455</b>	<b>\$39,817</b>	<b>\$131,089</b>
<i>% of vessels with loan</i>	24%	34%	21%	31%	31%
<b>Equity</b> - Owner's equity in vessel	<b>\$133,004</b>	<b>\$242,582</b>	<b>\$161,984</b>	<b>\$149,587</b>	<b>\$1,518,424</b>
<i>Insurance coverage (% of vessels / % of assets)</i>	26% / 49%	57% / 61%	29% / 35%	37% / 48%	72% / 26%
<b><u>Vessel Operation (2011)</u></b>					
Owner-operator	41%	58%	80%	40%	24%
Actively shrimping	85%	84%	80%	89%	48%
Days at sea - Gulf shrimping	133	130	87	164	51
Shrimp landed (pounds)	55,220	80,779	51,819	85,425	50,259
Fuel use (gallons)	24,866	41,970	19,583	47,253	44,301
<b><u>Fleet Averages</u></b>					
Shrimp price (\$ per pound)	3.78	3.59	2.78	3.79	3.67
Fuel price (\$ per gallon)	3.25	3.05	3.23	3.17	3.40
Fuel efficiency I - Shrimp pounds per gallon	2.2	1.9	2.6	1.8	1.1
Fuel efficiency II - Shrimp revenue per gallon	8.40	6.91	7.35	6.84	4.16

(in USD unless otherwise noted)	SPGM Permit Fleet				
	<u>FL</u>	<u>AL+MS</u>	<u>LA</u>	<u>TX</u>	<u>Other</u>
# of Observations	66	67	123	171	29
<b>Cash Flow (2011)</b>					
<b>Inflow - Total</b>	<b>222,122</b>	<b>317,199</b>	<b>167,904</b>	<b>338,208</b>	<b>1,030,757</b>
Shrimp revenue	208,800	289,929	143,920	323,376	184,487
Non-shrimp revenue	3,767	8,524	4,072	696	843,467
Government payments received (shrimp related)	2,539	6,675	14,082	5,100	1,758
DWH-related payments received	7,016	12,070	5,830	9,035	1,044
<b>Outflow - Total</b>	<b>198,032</b>	<b>291,604</b>	<b>151,038</b>	<b>312,522</b>	<b>812,970</b>
Fuel	80,850	128,148	63,273	149,783	150,837
Other supplies	12,467	20,721	15,213	27,946	75,401
Crew & captain (hired)	58,112	68,075	36,132	75,478	422,431
Regular maintenance (vessel and gear)	15,768	17,289	10,152	20,985	39,482
Major repair and haul-out	10,695	8,525	6,019	8,600	17,756
Insurance	4,085	9,826	3,655	5,048	27,763
Overhead	7,979	15,197	5,716	11,342	39,013
Interest payments made (on vessel loans)	1,070	5,441	836	2,055	9,747
Principal payments made (on vessel loans)	5,006	13,037	5,430	6,546	22,971
New investments and upgrades (in vessel)	2,000	5,345	4,612	4,739	7,568
<b>Net Cash Flow (excluding taxes)</b>	<b>24,090</b>	<b>25,595</b>	<b>16,866</b>	<b>25,686</b>	<b>217,787</b>
<b>Non-Cash Cost Estimates (2011)</b>					
Owner's vessel time	10,226	8,135	11,672	6,831	5,561
Depreciation	11,021	17,504	14,702	7,290	32,224
<b>Income Statement (2011)</b>					
<b>Revenue from Operations</b>	<b>212,567</b>	<b>298,453</b>	<b>147,992</b>	<b>324,073</b>	<b>1,027,955</b>
<b>Costs of Operations</b>	<b>211,203</b>	<b>293,421</b>	<b>166,534</b>	<b>313,303</b>	<b>810,469</b>
<i>Variable costs - Non-Labor (fuel, supplies)</i>	44.2%	50.7%	47.1%	56.7%	27.9%
<i>Variable costs - Labor (hired, owner)</i>	32.4%	26.0%	28.7%	26.3%	52.8%
<i>Fixed costs (maint., repair, insure, overh., depreci.)</i>	23.5%	23.3%	24.2%	17.0%	19.3%
<b>Net Revenue from Operations</b>	<b>1,364</b>	<b>5,032</b>	<b>(18,542)</b>	<b>10,770</b>	<b>217,486</b>
<b>Profit or Loss (before tax)</b>	<b>9,849</b>	<b>18,337</b>	<b>534</b>	<b>22,850</b>	<b>210,541</b>
<b>Fleet Returns (2011)</b>					
Economic Return	0.9%	1.6%	(10.3%)	5.7%	13.2%
Return on Equity	7.4%	7.6%	0.3%	15.3%	13.9%

Table 5: F&E Results: Averages for the Gulf Shrimp Fleet by State and by Activity Status (2011)

	Gulf Shrimp Fleet				Gulf Shrimp Fleet	
	<u>FL</u>	<u>AL+MS</u>	<u>LA</u>	<u>TX</u>	<u>Inactive</u>	<u>Active</u>
# of Observations	60	67	121	170	60	368
<b><u>Vessel Characteristics</u></b>						
Length (feet)	57	68	60	72	48	69
Gross tons	74	109	74	120	55	106
Horse power	421	578	466	567	363	548
Year built	1983	1990	1989	1986	1984	1988
Hull material - Steel	25%	72%	67%	91%	33%	77%
Refrigeration - Freezer	47%	58%	28%	85%	27%	64%
State of Owner - Florida	100%	0%	0%	0%	15%	14%
State of Owner - Alabama or Mississippi	0%	100%	0%	0%	18%	15%
State of Owner - Louisiana	0%	0%	100%	0%	37%	27%
State of Owner - Texas	0%	0%	0%	100%	30%	41%
State of Owner - Other	0%	0%	0%	0%	0%	3%
<b><u>Balance Sheet (end of 2011)</u></b>						
<b>Assets</b> - Market value of vessel and permit	<b>\$153,164</b>	<b>\$307,538</b>	<b>\$181,686</b>	<b>\$190,312</b>	<b>\$68,910</b>	<b>\$224,252</b>
<i>Original value of vessel (purchase price)</i>	\$170,728	\$349,401	\$188,262	\$248,574	\$71,112	\$263,090
<i>Implicit permit value</i>	\$6,327	\$31,361	\$21,970	\$25,268	\$13,423	\$23,678
<b>Liabilities</b> - Loan on vessel	<b>\$26,110</b>	<b>\$64,955</b>	<b>\$17,743</b>	<b>\$40,051</b>	<b>\$5,580</b>	<b>\$40,971</b>
<i>% of vessels with loan</i>	25%	34%	21%	31%	3%	32%
<b>Equity</b> - Owner's equity in vessel	<b>\$127,055</b>	<b>\$242,582</b>	<b>\$163,943</b>	<b>\$150,261</b>	<b>\$63,330</b>	<b>\$183,281</b>
<i>Insurance coverage (% of vessels / % of assets)</i>	25% / 51%	57% / 61%	30% / 35%	37% / 48%	3% / 9%	42% / 50%
<b><u>Vessel Operation (2011)</u></b>						
Owner-operator	38%	58%	79%	40%	55%	53%
Actively shrimping	85%	84%	82%	89%	0%	100%
Days at sea - Gulf shrimping	145	130	89	165	0	160
Shrimp landed (pounds)	50,722	80,779	52,675	85,928	0	83,254
Fuel use (gallons)	23,413	41,970	19,887	47,531	19	41,312
<b><u>Fleet Averages</u></b>						
Shrimp price (\$ per pound)	3.76	3.59	2.78	3.79	-	3.53
Fuel price (\$ per gallon)	3.26	3.05	3.23	3.17	3.73	3.17
Fuel efficiency I - Shrimp pounds per gallon	2.2	1.9	2.6	1.8	-	2.0
Fuel efficiency II - Shrimp revenue per gallon	8.14	6.91	7.36	6.84	-	7.11

(in USD unless otherwise noted)	Gulf Shrimp Fleet				Gulf Shrimp Fleet	
	FL	AL+MS	LA	TX	Inactive	Active
# of Observations	60	67	121	170	60	368
<b>Cash Flow (2011)</b>						
<b>Inflow - Total</b>	<b>201,947</b>	<b>317,199</b>	<b>170,332</b>	<b>339,703</b>	<b>2,657</b>	<b>315,494</b>
Shrimp revenue	190,661	289,929	146,299	325,279	0	293,934
Non-shrimp revenue	2,014	8,524	3,891	665	45	3,905
Government payments received (shrimp related)	2,387	6,675	14,216	5,059	1,528	8,462
DWH-related payments received	6,884	12,070	5,926	8,700	1,083	9,193
<b>Outflow - Total</b>	<b>185,531</b>	<b>291,604</b>	<b>153,304</b>	<b>314,319</b>	<b>7,297</b>	<b>289,653</b>
Fuel	76,348	128,148	64,255	150,664	71	130,792
Other supplies	11,961	20,721	15,383	28,110	22	24,682
Crew & captain (hired)	54,540	68,075	36,665	75,922	0	71,947
Regular maintenance (vessel and gear)	13,636	17,289	10,318	21,109	1,797	19,157
Major repair and haul-out	9,579	8,525	6,119	8,621	2,283	9,368
Insurance	3,835	9,826	3,716	5,077	430	6,233
Overhead	7,164	15,197	5,791	11,397	1,164	11,252
Interest payments made (on vessel loans)	1,101	5,441	850	2,068	46	2,548
Principal payments made (on vessel loans)	5,346	13,037	5,519	6,585	0	8,637
New investments and upgrades (in vessel)	2,023	5,345	4,688	4,767	1,483	5,037
<b>Net Cash Flow (excluding taxes)</b>	<b>16,416</b>	<b>25,595</b>	<b>17,028</b>	<b>25,384</b>	<b>(4,640)</b>	<b>25,841</b>
<b>Non-Cash Cost Estimates (2011)</b>						
Owner's vessel time	8,510	8,135	11,754	6,813	13	10,192
Depreciation	10,805	17,504	14,879	7,333	4,854	12,842
<b>Income Statement (2011)</b>						
<b>Revenue from Operations</b>	<b>192,675</b>	<b>298,453</b>	<b>150,190</b>	<b>325,944</b>	<b>45</b>	<b>297,838</b>
<b>Costs of Operations</b>	<b>196,376</b>	<b>293,421</b>	<b>168,879</b>	<b>315,045</b>	<b>10,635</b>	<b>296,465</b>
<i>Variable costs - Non-Labor (fuel, supplies)</i>	45.0%	50.7%	47.2%	56.7%	0.9%	52.4%
<i>Variable costs - Labor (hired, owner)</i>	32.1%	26.0%	28.7%	26.3%	0.1%	27.7%
<i>Fixed costs (maint., repair, insure, overh., depreci.)</i>	22.9%	23.3%	24.2%	17.0%	99.0%	19.9%
<b>Net Revenue from Operations</b>	<b>(3,701)</b>	<b>5,032</b>	<b>(18,690)</b>	<b>10,898</b>	<b>(10,590)</b>	<b>1,373</b>
<b>Profit or Loss (before tax)</b>	<b>4,470</b>	<b>18,337</b>	<b>603</b>	<b>22,590</b>	<b>(8,024)</b>	<b>16,481</b>
<b>Fleet Returns (2011)</b>						
Economic Return	(2.4%)	1.6%	(10.3%)	5.7%	(15.4%)	0.6%
Return on Equity	3.5%	7.6%	0.4%	15.0%	(12.7%)	9.0%

Table 6: F&E Results: Averages for the Active Gulf Shrimp Fleet by State (2011)

	Active Gulf	Active Gulf Shrimp Fleet			
	Shrimp	FL	AL+MS	LA	TX
# of Observations	368	51	56	99	152
<b><u>Vessel Characteristics</u></b>					
Length (feet)	69	59	74	63	74
Gross tons	106	79	125	80	124
Horse power	548	439	643	479	586
Year built	1988	1983	1991	1989	1986
Hull material - Steel	77%	27%	82%	76%	94%
Refrigeration - Freezer	64%	51%	68%	32%	88%
State of Owner - Florida	14%	100%	0%	0%	0%
State of Owner - Alabama or Mississippi	15%	0%	100%	0%	0%
State of Owner - Louisiana	27%	0%	0%	100%	0%
State of Owner - Texas	41%	0%	0%	0%	100%
State of Owner - Other	3%	0%	0%	0%	0%
<b><u>Balance Sheet (end of 2011)</u></b>					
<b>Assets</b> - Market value of vessel and permit	<b>\$224,252</b>	<b>\$167,053</b>	<b>\$357,010</b>	<b>\$207,830</b>	<b>\$203,355</b>
<i>Original value of vessel (purchase price)</i>	\$263,090	\$185,625	\$409,516	\$217,491	\$266,400
<i>Implicit permit value</i>	\$23,678	\$6,792	\$32,287	\$22,689	\$26,707
<b>Liabilities</b> - Loan on vessel	<b>\$40,971</b>	<b>\$30,717</b>	<b>\$77,715</b>	<b>\$21,686</b>	<b>\$42,592</b>
<i>% of vessels with loan</i>	32%	29%	41%	26%	34%
<b>Equity</b> - Owner's equity in vessel	<b>\$183,281</b>	<b>\$136,336</b>	<b>\$279,296</b>	<b>\$186,144</b>	<b>\$160,763</b>
<i>Insurance coverage (% of vessels / % of assets)</i>	42% / 50%	29% / 55%	68% / 63%	34% / 35%	41% / 50%
<b><u>Vessel Operation (2011)</u></b>					
Owner-operator	53%	37%	55%	82%	41%
Actively shrimping	100%	100%	100%	100%	100%
Days at sea - Gulf shrimping	160	175	161	111	185
Shrimp landed (pounds)	83,254	59,673	96,646	64,381	96,103
Fuel use (gallons)	41,312	27,545	50,213	24,300	53,157
<b><u>Fleet Averages</u></b>					
Shrimp price (\$ per pound)	3.53	3.76	3.59	2.78	3.79
Fuel price (\$ per gallon)	3.17	3.26	3.05	3.23	3.17
Fuel efficiency I - Shrimp pounds per gallon	2.0	2.2	1.9	2.6	1.8
Fuel efficiency II - Shrimp revenue per gallon	7.11	8.14	6.91	7.36	6.84

(in USD unless otherwise noted)	Active Gulf	Active Gulf Shrimp Fleet			
	Shrimp	FL	AL+MS	LA	TX
# of Observations	368	51	56	99	152
<b><u>Cash Flow (2011)</u></b>					
<b>Inflow - Total</b>	<b>315,494</b>	<b>237,094</b>	<b>379,261</b>	<b>207,338</b>	<b>379,688</b>
Shrimp revenue	293,934	224,307	346,879	178,810	363,798
Non-shrimp revenue	3,905	2,370	10,168	4,755	737
Government payments received (shrimp related)	8,462	2,809	7,772	16,682	5,586
DWH-related payments received	9,193	7,609	14,441	7,092	9,566
<b>Outflow - Total</b>	<b>289,653</b>	<b>216,108</b>	<b>348,292</b>	<b>186,315</b>	<b>350,292</b>
Fuel	130,792	89,821	153,316	78,506	168,497
Other supplies	24,682	14,072	24,791	18,788	31,439
Crew & captain (hired)	71,947	64,164	81,447	44,813	84,913
Regular maintenance (vessel and gear)	19,157	15,711	20,502	12,313	23,272
Major repair and haul-out	9,368	10,517	10,017	7,324	9,161
Insurance	6,233	4,511	11,757	4,281	5,679
Overhead	11,252	7,997	18,066	6,776	12,671
Interest payments made (on vessel loans)	2,548	1,295	6,509	1,039	2,294
Principal payments made (on vessel loans)	8,637	6,290	15,598	6,746	7,364
New investments and upgrades (in vessel)	5,037	1,731	6,290	5,730	5,002
<b>Net Cash Flow (excluding taxes)</b>	<b>25,841</b>	<b>20,986</b>	<b>30,969</b>	<b>21,023</b>	<b>29,396</b>
<b><u>Non-Cash Cost Estimates (2011)</u></b>					
Owner's vessel time	10,192	10,012	9,734	14,357	7,620
Depreciation	12,842	12,066	19,791	16,475	8,040
<b><u>Income Statement (2011)</u></b>					
<b>Revenue from Operations</b>	<b>297,838</b>	<b>226,676</b>	<b>357,047</b>	<b>183,565</b>	<b>364,536</b>
<b>Costs of Operations</b>	<b>296,465</b>	<b>228,871</b>	<b>349,419</b>	<b>203,634</b>	<b>351,291</b>
<i>Variable costs - Non-Labor (fuel, supplies)</i>	52.4%	45.4%	51.0%	47.8%	56.9%
<i>Variable costs - Labor (hired, owner)</i>	27.7%	32.4%	26.1%	29.1%	26.3%
<i>Fixed costs (maint., repair, insure, overh., depreci.)</i>	19.9%	22.2%	22.9%	23.2%	16.7%
<b>Net Revenue from Operations</b>	<b>1,373</b>	<b>(2,195)</b>	<b>7,628</b>	<b>(20,069)</b>	<b>13,245</b>
<b>Profit or Loss (before tax)</b>	<b>16,481</b>	<b>6,929</b>	<b>23,332</b>	<b>2,666</b>	<b>26,102</b>
<b><u>Fleet Returns (2011)</u></b>					
Economic Return	0.6%	(1.3%)	2.1%	(9.7%)	6.5%
Return on Equity	9.0%	5.1%	8.4%	1.4%	16.2%

Table 7: F&E Results: Averages for the Active Gulf Shrimp Fleet by Ownership Structure; and of the Owner-Operated Sub-Fleet by Captain's Share Structure (2011)

	Active Gulf Shrimp # of Observations	Active Gulf Shrimp Fleet		Own-Operator Act. Gulf Shr.	
		Hired Captain	Own-Operator	without Share	with Share
	368	172	196	132	64
<b><u>Vessel Characteristics</u></b>					
Length (feet)	69	71	68	68	67
Gross tons	106	114	99	100	99
Horse power	548	550	545	558	519
Year built	1988	1987	1988	1989	1986
Hull material - Steel	77%	80%	75%	76%	73%
Refrigeration - Freezer	64%	78%	52%	52%	53%
State of Owner - Florida	14%	19%	10%	6%	17%
State of Owner - Alabama or Mississippi	15%	15%	16%	15%	17%
State of Owner - Louisiana	27%	10%	41%	44%	36%
State of Owner - Texas	41%	52%	32%	33%	30%
State of Owner - Other	3%	4%	2%	2%	0%
<b><u>Balance Sheet (end of 2011)</u></b>					
<b>Assets</b> - Market value of vessel and permit	<b>\$224,252</b>	<b>\$236,196</b>	<b>\$213,771</b>	<b>\$214,892</b>	<b>\$211,457</b>
<i>Original value of vessel (purchase price)</i>	\$263,090	\$270,093	\$256,945	\$264,004	\$242,386
<i>Implicit permit value</i>	\$23,678	\$22,753	\$24,521	\$19,872	\$32,829
<b>Liabilities</b> - Loan on vessel	<b>\$40,971</b>	<b>\$53,021</b>	<b>\$30,397</b>	<b>\$35,003</b>	<b>\$20,896</b>
<i>% of vessels with loan</i>	32%	41%	24%	25%	23%
<b>Equity</b> - Owner's equity in vessel	<b>\$183,281</b>	<b>\$183,174</b>	<b>\$183,374</b>	<b>\$179,889</b>	<b>\$190,561</b>
<i>Insurance coverage (% of vessels / % of assets)</i>	42% / 50%	47% / 53%	38% / 48%	38% / 50%	39% / 46%
<b><u>Vessel Operation (2011)</u></b>					
Owner-operator	53%	0%	100%	100%	100%
Actively shrimping	100%	100%	100%	100%	100%
Days at sea - Gulf shrimping	160	188	136	132	144
Shrimp landed (pounds)	83,254	99,315	69,159	69,368	68,728
Fuel use (gallons)	41,312	50,641	33,126	33,726	31,890
<b><u>Fleet Averages</u></b>					
Shrimp price (\$ per pound)	3.53	3.70	3.31	3.33	3.28
Fuel price (\$ per gallon)	3.17	3.14	3.20	3.22	3.16
Fuel efficiency I - Shrimp pounds per gallon	2.0	2.0	2.1	2.1	2.2
Fuel efficiency II - Shrimp revenue per gallon	7.11	7.26	6.91	6.84	7.08

(in USD unless otherwise noted)	Active Gulf	Active Gulf Shrimp Fleet		Own-Operator Act. Gulf Shr.	
	Shrimp	Hired Captain	Own-Operator	without Share	with Share
# of Observations	368	172	196	132	64
<b>Cash Flow (2011)</b>					
<b>Inflow - Total</b>	<b>315,494</b>	<b>387,397</b>	<b>252,396</b>	<b>253,098</b>	<b>250,947</b>
Shrimp revenue	293,934	367,870	229,051	230,709	225,630
Non-shrimp revenue	3,905	4,495	3,387	2,215	5,802
Government payments received (shrimp related)	8,462	6,216	10,433	12,233	6,721
DWH-related payments received	9,193	8,815	9,525	7,940	12,794
<b>Outflow - Total</b>	<b>289,653</b>	<b>372,360</b>	<b>217,073</b>	<b>220,856</b>	<b>209,272</b>
Fuel	130,792	159,089	105,960	108,514	100,692
Other supplies	24,682	34,344	16,203	17,602	13,317
Crew & captain (hired)	71,947	99,490	47,777	46,628	50,149
Regular maintenance (vessel and gear)	19,157	25,397	13,682	14,621	11,744
Major repair and haul-out	9,368	11,462	7,530	6,222	10,229
Insurance	6,233	7,362	5,243	5,092	5,555
Overhead	11,252	16,308	6,815	7,110	6,207
Interest payments made (on vessel loans)	2,548	3,378	1,819	2,010	1,424
Principal payments made (on vessel loans)	8,637	10,070	7,379	8,178	5,732
New investments and upgrades (in vessel)	5,037	5,462	4,665	4,879	4,225
<b>Net Cash Flow (excluding taxes)</b>	<b>25,841</b>	<b>15,036</b>	<b>35,322</b>	<b>32,242</b>	<b>41,674</b>
<b>Non-Cash Cost Estimates (2011)</b>					
Owner's vessel time	10,192	0	19,136	17,531	22,447
Depreciation	12,842	13,378	12,372	13,972	9,070
<b>Income Statement (2011)</b>					
<b>Revenue from Operations</b>	<b>297,838</b>	<b>372,365</b>	<b>232,437</b>	<b>232,925</b>	<b>231,432</b>
<b>Costs of Operations</b>	<b>296,465</b>	<b>366,828</b>	<b>234,718</b>	<b>237,292</b>	<b>229,409</b>
<i>Variable costs - Non-Labor (fuel, supplies)</i>	52.4%	52.7%	52.0%	53.1%	49.7%
<i>Variable costs - Labor (hired, owner)</i>	27.7%	27.1%	28.5%	27.0%	31.6%
<i>Fixed costs (maint., repair, insure, overh., depreci.)</i>	19.9%	20.1%	19.4%	19.8%	18.7%
<b>Net Revenue from Operations</b>	<b>1,373</b>	<b>5,537</b>	<b>(2,280)</b>	<b>(4,367)</b>	<b>2,024</b>
<b>Profit or Loss (before tax)</b>	<b>16,481</b>	<b>17,190</b>	<b>15,859</b>	<b>13,796</b>	<b>20,114</b>
<b>Fleet Returns (2011)</b>					
Economic Return	0.6%	2.3%	(1.1%)	(2.0%)	1.0%
Return on Equity	9.0%	9.4%	8.6%	7.7%	10.6%

## Definitions

**Balance Sheet:** A balance sheet is a snapshot of a company's financial condition. A company's balance sheet has three parts: assets, liabilities, and the owner's equity. The asset side of a balance sheet lists all assets of a company and their value at a given point in time. The liability side lists the various sources of money invested to acquire these assets (the financial capital). Beyond investing their own capital (money), most company owners borrow financial capital from other sources, such as banks. The equity, the owners' interest on the assets of the company, always equals the difference between the value of all assets and what is owed.

**Cash Flow Statement:** The cash flow statement shows a company's flow of money. Money accruing to the company is called cash inflow. In this study, the most important cash inflow is revenue generated through the sale of commercially harvested seafood. Money leaving the company is called cash outflow, which includes the various costs of owning and operating the shrimp vessel. Transactions that do not directly create cash receipts and payments are excluded. The difference between inflow and outflow---the net cash flow---reflects the vessel owner's liquidity or solvency and is useful in determining the short-term viability of a company.

**Income Statement:** An income statement is intended to help owners and investors determine the true economic performance of a company over a specified period of time. The income statement is sometimes called the profit and loss statement. The income statement begins with the revenue generated from operations (sale of product or service) and subtracts all operating costs, including estimates of non-cash costs such as the value of owner's labor and depreciation. The result is the net revenue from operations. This is a measure of the true economic return to a productive activity. More relevant to the owners of a company their actual profit or loss, which is calculated by subtracting financing costs (such as interest payments) and adding non-operating income to net revenue from operations. In contrast to the cash flow statement, loan principal and new investment expenses are not included, as they represent a shift among asset classes (e.g., cash to vessel) rather than an economic cost.

**Returns:** An "economic return" (of commercial fishing) is calculated by dividing net operating revenue by the value of vessel assets. Economic return quantifies the productivity of a shrimp vessel's production from a societal perspective. In contrast, the return on equity is the primary concern of the individual owner. The return on equity is calculated by dividing the profit or loss by the equity currently invested by the owner in the vessel.

## Data Sources

Permit and vessel data: Constituency Services Branch, Southeast Regional Office, NMFS.  
Revenue and landings data: Trip ticket programs of the various Gulf and Atlantic States as consolidated by the NMFS, SE Fisheries Science Center, Galveston lab (Gulf shrimp system); the Atlantic Coastal Cooperative Statistics Program; & the Gulf Fisheries Information Network at the Gulf States Marine Fisheries Commission.  
Economic data: NMFS, SE Fisheries Science Center, Miami lab, Social Science Research Group.

## More Information

For more definitions, as well as background on the survey design, processing and cleaning of the data, and the quality, caveats, and idiosyncrasies associated with each data field, please see the NOAA Technical memorandum (NMFS-SEFSC-601) available at: [www.sefsc.noaa.gov/socialscience/shrimp.htm](http://www.sefsc.noaa.gov/socialscience/shrimp.htm)

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