Louisiana Commercial Crab Fishermen: Trends in Fishing Efforts, Landings and Landing Revenue, Impact of Hurricanes and Monitoring of Recovery

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By

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Executive Summary

This report uses the trip ticket data collected by the Marine Fisheries division of the Louisiana's Department of Wildlife and Fisheries (LDWF) to examine the structure and socioeconomic characteristics of the fisherman side of the Louisiana's crab fishery and to monitor the recovery of this fishery in the aftermath of hurricanes Katrina and Rita in 2005 and Gustav and Ike in 2008.

The trip ticket program (TTP) was established by the Louisiana Legislature in 1991 as a system to collect commercial landings and associated information by trip for individual fisheries. The TTP however was not implemented until 1999 due to lack of available funding. At the onset, the TTP was set to accomplish two objectives: (1) to provide fishery scientists with gear and area specific catch information that will improve the accuracy of stock assessments and (2) to provide fishery managers information on the impact of environmental changes and catastrophic events on the fishery.

Participants in the trip ticket program include holders of wholesale dealers and retail dealers as well as fresh products licenses. These participants provide the commercial landings and the associated information supplied to them by commercial fishermen at times of first seafood sales or purchases. Participants' records in the trip ticket are protected under Louisiana confidentiality statutes. In addition, summary report on them is disclosed only if the number of individuals involved is greater than three.

The information provided in this report addresses the objectives of the TTP. However, similar information, although not as detailed as those presented in this report, may be available in the publications or websites of the National Marine Fisheries Service (NMFS). The structural

and the socioeconomic variables considered by this report follow the information available (as of October 1, 2010) in the trip ticket data from 2000 through 2009. The report covers participation and activities as well as performance measures in the crab fishery including blue crab and stone species. Some aspects of the crab fishery are aggregated or simply excluded when there are scanty and discontinuous information or when such information violates the confidentiality provisions of the State of Louisiana (e.g., when the number of participants involved is less than four).

The report is divided into four chapters. Chapter 1 consists of report on the fisherman's participation or efforts in the commercial crab fishery. Participation and activities includes the numbers of fishermen, fishing vessels and fishing trips as well as the length of fishing trips and type of gear used by the fishermen to harvest crabs. The performance of the crab fishery in terms of the volume (in pounds), average dockside price and dockside value of crabs landed or sold at the Louisiana docks (first point of sales) as well as the condition of the crabs at landing, the unit of measure, and size or size count of crabs, are contained in Chapter 2. Chapter 3 combines the previous two chapters to generate landings, average dockside price (where possible) and dockside value measures per fishing effort, while Chapter 4 discusses the impacts of hurricanes Katrina and Rita as well as Gustav and Ike on the crab fishery and its recovery in the aftermath of these hurricanes.

Summary findings from this report are grouped into the following categories: participation and activities, dockside performance, performance per effort and hurricane impacts associated with the Louisiana crab fishery.

I. Participation and Activities in Louisiana Crab Fishery (2000 – 2009)

1. The number of fishermen who landed or sold at least a pound of crabs at Louisiana docks (crab fishermen) declined by 60.6 percent from 2,233 in 2000 to a low of 1,352 in 2006.

2. An average of 99.9 percent of fishermen who landed crabs from 2000 through 2009 landed blue crabs, while only 3.1 percent landed stone crabs.

3. The majority of fishermen (approximately 95.7 percent) who landed or sold crabs in a given year during the period between 2000 and 2009 held a residential commercial fisherman license.

4. The top three parishes where most of the crab fishermen resided were Terrebonne (between 224 crab fishers in 2009 and 448 in 2001), St. Bernard (106 fishers in 2006 and 253 in 2000) and Lafourche parishes (from 144 fishers in 2007 to 232 in 2001).

5. The total number of fishing trips associated with at least a pound of crab landings ranged from 214,957 trips in 2005 to 294,240 trips in 2003. The average number of trips per crab fisherman fluctuated between 106 trips in 2001 and 185 trips in 2007 and 2009.

6. The total length of fishing trips taken by all fishermen who landed or sold crabs declined from approximately 2.4 million hours (or 99,203 days) in 2003 to 1.6 million hours (or 67,161 days) in 2005. In addition, the average length of fishing trips associated with crab landings fluctuated between 7.5 hours in 2004 or 2005 and 8.3 hours in 2000.

7. The number of fishing vessels, which reportedly landed at least a pound of crabs at Louisiana docks, fell from a high of 5,334 vessels in 2000 to a low of 1,581 vessels in 2006. On average, 94.4 percent of these fishing vessels were registered in Louisiana and 4.5 percent in states other than Louisiana. The remainder of the vessels, approximately 1.1 percent, was documented with the U.S. Coast Guard.

8. Terrebonne (with 214 vessels), Jefferson (135 vessels) and St. Bernard (127 vessels) topped other parishes in the average number of fishing vessels owned by individual who resided in them.

9. Of the annual average of 1,119 fishing vessels (58.3 percent) whose license types and lengths were specified since 2002, approximately 98.6 percent was licensed to individuals who resided in Louisiana and 75.6 percent were 20 feet long or less.

10. Crab pots and traps were the single most popular gear used by an average of 96.6 percent of individuals (1,691 fishermen) who landed crabs in Louisiana in the 2000-

2009 period. The number of fishermen who used this gear ranged from 1,329 in 2006 to 2,169 in 2002.

II. Dockside Performance of Louisiana Crab Fishery (2000 – 2009)

1. The largest volume of crabs landed or sold by fishermen at Louisiana docks (53.5 million pounds) occurred in 2006, while the smallest volume (38.1 million pounds) occurred in 2005. On average, blue crabs constituted the major portion (over 99.9 percent) of the total crab landings, while small quantity of stone crabs was landed.

2. The actual (nominal) price per pound of crabs was between a low of $0.80 in 2006 and a high of $1.07 in 2008, averaging $0.96 for the 2000-2009 period. The yearly average nominal dockside price of blue crabs ($0.95 per pound) was about one-third of the average price of stone crabs ($2.72 per pound) from 2000 through 2009.

3. The total nominal dockside value of crabs landed or sold at the Louisiana docks ranged from $27.4 million in 2005 to $37.2 million in 2009. On average, blue crabs constituted approximately 99.9 percent of total dockside value of crabs from 2000 to 2009.

4. The top three parishes with the average annual volume of crabs landed or sold by fishermen who resided in them were Terrebonne (9.0 million pounds), Lafourche (6.3 million pounds) and St. Bernard (6.1 million pounds).

5. Between 2000 and 2009, the annual nominal dockside values of crabs sold averaged $5.7 million for Terrebonne, $4.4 million for Lafourche and $3.9 million for St. Bernard residents.

6. Three states accounted for 87.6 percent of the volume and 89.1 percent of the nominal dockside values of crabs landed in Louisiana by non-resident fishermen. Individuals in Mississippi contributed the largest of 153,251 pounds ($129,851 worth) of crabs annually. Texas' residents landed an average of 122,996 pounds ($81,106 worth) and Alabama, 81,582 pounds selling for $44,916.

7. Approximately 99.9 percent of total crab volume landed yearly in Louisiana between 2000 and 2009 was from Louisiana territorial river basins. The top three basins, with the annual average volumes or nominal dockside values of crabs landed from their waters, were Terrebonne (13.5 million pounds or $8.9 million), Lake Pontchartrain (10.8 million pounds or $8.3 million) and Barataria (8.9 million pounds or $6.2 million).

8. The leading Louisiana river basins, with the average nominal dockside prices of crabs harvested from their waters from 2000 through 2009, were Vermilion-Teche ($1.11 per pound), Lake Pontchartrain ($1.04 per pound) and Atchafalaya ($0.99 per pound).

9. On market description of crabs at the first point of sale, majority (87.6 percent) of crabs landed in Louisiana from 2000 to 2009 was categorized by physical size. Medium size crabs accounted for a yearly volume of 16.3 million pounds of crabs, followed by small and large crabs with average volumes of 12.0 million and 8.1 million pounds, respectively. Factory blue crabs constituted an average of 10.3 percent. Softshell crabs commanded the largest average nominal dockside price of $3.73 per pound, followed by crab claws, with $2.55 per pound and buster or peeler, with $2.28 per pound. Large crabs sold for an average of $1.41 per pound, while male crabs sold for $1.33 per pound. In terms of annual average nominal values, the top three categories were Large crabs ($10.9 million), medium crabs ($9.6 million) and small crabs ($5.7 million).

10. The majority (over 99.9 percent) of the crabs landed in Louisiana from 2000 through 2009 or their nominal dockside values was landed whole.

11. Approximately 99.1 percent of the crabs landed in Louisiana (97.4 percent of dockside values) was measured in pounds whole weight.

III. Dockside Performance per Effort in Louisiana Crab Fishery (2000 – 2009)

1. The average volume of crabs landed per fisherman ranged from 18,849 pounds in 2001 to 39,549 pounds in 2006. The nominal (actual) dockside values of crabs per fisherman averaged between $14,453 in 2001 and $25,210 in 2007.

2. The average crab landings per fishing trip fluctuated between 153 pounds in 2004 and 234 pounds in 2006. However, average actual dockside values of crabs per trip ranged from $105 in 2004 to $154 in 2008.

3. In the period between 2000 and 2009, the smallest average volume of crabs landed per hour of fishing trip (20 pounds) occurred in 2003 and 2004, while the largest (29 pounds) occurred in 2006. Also, the smallest average actual dockside value per hour ($13) was recorded in 2004, while the largest ($20) was recorded in 2008.

4. The average volume of crabs landed per fishing vessel ranged from 9,209 pounds in 2001 to 33,820 pounds in 2006. However, the average actual dockside values of crabs harvested per vessel ranged between $6,482 in 2000 and $21,961 in 2009.

5. The amount of crabs landed per foot of fishing vessel averaged between 1,757 pounds in 2005 and 2,481 in 2000. The dockside value of crabs landed per foot of vessel fluctuated ranged from $1,263 in 2005 to $1,663 in 2007.

6. Among fishing vessel whose lengths were specified in the trip ticket, vessels category, 24 feet and below, accounted for 83.5 percent of crabs from 2000 to 2009. Specifically, vessels 20 to 24 feet long landed the largest portion of crabs, ranging from 14.7 million in 2001 to 24.0 million in 2006, followed by vessels 19 feet or less,

which harvested between 5.3 million pounds of crabs in 2005 and 10.1 million pounds in 2002. The 20-24 foot vessels accounted for nominal crab values of between $11.0 million in 2004 and $14.9 million in 2007, while vessels of 19 feet or less accounted for a range from $3.8 million in 2005 to $6.1 million in 2001.

7. Approximately 99.5 percent of all crabs annually landed in Louisiana in the period between 2000 and 2009 were harvested using crab pots and traps.

IV. Hurricane Impacts and Recovery of the Louisiana Crab Fishery (2000 – 2009)

Examining the findings in this report shows that three major lows occurred in Louisiana crab fishery within the period between 2000 and 2009. The first low, which occurred in 2001, can be associated with limited understanding on the part of the fishermen of the newly introduced trip ticket program and changing regulations on fishing efforts to enhance fishery management. The depressions in 2005 and 2008 are attributed to the devastation caused by Katrina and Rita as well as Gustav and Ike, respectively. Katrina and Rita were category 3 hurricanes, while Gustav and Ike were of categories 2 and 1, respectively. The following are the highlights of the impacts of these hurricanes on Louisiana's crab fishery:

1. The total numbers of fishermen who landed or sold crabs suffered consistent decline from 2000 to 2006 regardless of Katrina and Rita. However, some portion of the decrease of 328 fishermen (17.9 percent) between 2004 and 2005 can be attributed to hurricanes Katrina and Rita. Also, the number of fishermen rose consistently from 2007 to 2009 regardless of Gustav and Ike.

2. The top three parishes, with the reduction in the number of resident fishermen due to Katrina and Rita in 2005, were Terrebonne (75 fishers), Jefferson (42 fishers) and St. Tammany (35 fishers). The number of crab fishermen fell by 20 residents in St. Mary, by 10 fishermen in Plaquemines and by 9 persons in Iberia parishes as a result of Gustav and Ike.

3. Between 2004 and 2005, the total number of fishing trips associated with crab landings decreased by 76,162 trips (26.2 percent) due to Katrina and Rita. In the same period, the average number of trips per fisherman declined by 16 trips (10.0 percent), while the number of crab fishing vessels decreased by 419 boats (19.4 percent). During and after Gustav and Ike in 2008, 38,373 trips, 29 trips per fisherman and operations of 25 vessels were forfeited compared to 2007.

4. The volume of crab landed in Louisiana fell due to Katrina and Rita by 14.2 percent in 2005 from 44.4 million in 2004 and due to Gustav and Ike by 3.6 percent in 2008 from 46.0 million pounds in 2007. However, the average real dockside price per pound of crabs rose by $0.05 in 2005 and by $0.03 in 2008. The real dockside value of crabs fell by 10.5 percent in 2005 and by 6.1 percent in 2008.

5. The net decline in the volume of crabs landed from 2004 and 2005 due to Katrina and Rita was largest for fishermen who resided in St. Bernard parish, with 39.3 percent decline, Plaquemines parish (34.6 percent) and Jefferson parish (23.5 percent). In the same period, Iberia, Lafourche and St. Mary's residents experienced a growth of 7.7 percent, 5.3 percent and 14.6 percent, respectively.

6. Between 2007 and 2008, individuals in Iberia top with a fall of 17.8 percent in crab landings due to Gustav and Ike, followed by Plaquemines with a decrease of 30.9 percent and Cameron with a decrease of 26.3 percent. Also in 2008, St. Charles, Jefferson and St. Bernard's residents benefited with landings increases of 42.4 percent, 12.1 percent and 2.5 percent, respectively.

7. Positive and negative changes also occurred to the dockside values of crabs across parish of residence due to hurricanes. Between 2004 and 2005 (Katrina and Rita), residents in Lafourche, St. Martin and Jefferson Davis benefitted with increases of 13.0 percent, 94.0 percent and 289.3 percent, respectively. The decline in the dockside values were 20.0 percent in St. Bernard, 42.7 percent in St. Tammany and 50.1 percent in Tangipahoa parishes.

8. Between 2007 and 2008 (Gustav and Ike), the dockside values of crabs increased by 34.5 percent in St. Charles, 33.5 percent in Jefferson Davis and 4.0 percent in Calcasieu. The declines in crab values in 2008 compared to 2007 were 16.5 percent for fishermen in Iberia, 39.1 percent for Plaquemines residents and 22.3 percent for individual residing in Cameron.

9. As stated in item II.7 above, 99.9 percent of all crabs harvested from 2000 to 2009 were from the basin waters. Between 2004 and 2005 (Katrina and Rita), the declines in crab landings associated with Lake Pontchartrain, Barataria and Mississippi River Basins were 4.2 million pounds (37.6 percent), 1.3 million pounds (12.8 percent) and 675.6 thousand pounds (30.9 percent), respectively. Only Atchafalaya River Basin recorded an increase of 730.7 thousand pounds (30.5 percent) of crabs harvested from its waters between 2004 and 2005.

10. Between 2007 and 2008 (Gustav and Ike), only Terrebonne Basin experienced more traffic with an increase of 1.4 million pounds (12.8 percent) of crabs harvested from its waters. In contrast, Barataria, Mississippi River and Calcasieu River Basins, with decreases of 553.7 thousand pounds (6.1 percent), 489.9 thousand pounds (31.5 percent) and 456.1 thousand pounds (15.4 percent), respectively, topped other basins in the crab landings reportedly harvested from their waters.

11. Lake Pontchartrain, Sabine River and Mississippi River Basins topped other basins with an equal increase of $0.16 in the average real dockside price per pound of crabs harvested from their waters between 2004 and 2005 (Katrina and Rita). Conversely, the average real dockside prices per pound of crabs caught from Atchafalaya and Vermilion-Teche River Basins declined by $0.16 and $0.06, respectively. Due to Gustav and Ike in 2008, the average real dockside price declined by $0.01 per pound

only for crabs associated with Vermilion-Teche River Basin but rose for crabs associated with Sabine, Mermentau and Atchafalaya River Basins by $0.08, $0.07 and $0.06 per pound, respectively.

12. In terms of the real dockside values of crabs harvested from their waters, Lake Pontchartrain Basin had the largest decline of $2.6 million (29.7 percent) between 2004 and 2005 due to Katrina and Rita. Following Lake Pontchartrain were Mississippi River with $227.9 thousand (25.4 percent) and Terrebonne with $225.3 thousand (2.8 percent). The real dockside values, however, rose for crabs harvested from Atchafalaya ($209.6 thousand or 13.4 percent) and Sabine ($12,081 or 16.0 percent) River Basins.

13. Between 2007 and 2008 (Gustav and Ike), the real dockside values of crabs harvested from Barataria Basin suffered the largest decline of $1.1 million (15.6 percent), followed by Lake Pontchartrain with $442.5 thousand (4.6 percent) and Calcasieu with $367.0 thousand (17.2 percent). Only for crabs caught in Terrebonne Basin was the real dockside values rose by $850.8 thousand (11.8 percent) in 2008 compared to 2007.

14. Crab landings per fisherman rose by 4.6 percent between 2004 and 2005 but fell by 4.4 percent between 2007 and 2008. Similarly, the real dockside value of crabs per fisherman rose by 9.1 percent in 2005 compared to 2004 but fell by 6.9 percent in 2008 compared to 2007.

15. Between 2004 and 2005, crab landings (real dockside value) per fishing trip rose by 16.2 percent (21.2 percent) due to Katrina and Rita. Likewise, crab landings (real dockside value) per trip rose by 13.0 percent (10.0 percent) between 2007 and 2008 due to Gustav and Ike.

16. As a result of Katrina and Rita in 2005, the volume of crabs harvested per hour increased by 17.4 percent and the real dockside value of crabs harvested per hour rose by 22.4 percent over their levels in 2004. Also, the volume and the real dockside value of crabs harvested per vessel rose by 6.5 percent and 11.1 percent, respectively. Due to Gustav and Ike, crab landings (real dockside value) per hour increased by 10.6 percent (7.7 percent). However, crab landings per vessel and associated dockside value fell by 2.1 percent and 4.7 percent, respectively.

17. The increase in the number of crab fishermen who lived in Calcasieu, Vermilion and Livingston parishes since 2006 suggests that recovery or mere relocation of fishermen from other parishes was occurring after Katrina and Rita. Recovery in terms of total crab landings appeared have only lasted a year after Katrina and Rita. However, appeared to have recovered was the volume of crabs landed by residents of St. Bernard, St. Tammany, Vermilion, Cameron and Calcasieu parishes as well as by individuals living outside Louisiana, which has consistently increased since 2006. In addition, Louisiana river basins such as Lake Pontchartrain, Calcasieu and Mermentau have experienced increased traffics with the pounds of crabs harvested

from the waters exceeding the pre-Katrina-Rita years. Incessant repeats of interruptions from market instability, fishery regulations and other major storms, including Gustav and Ike, might have constituted the major forces slowing down a complete recovery of the crab fishery.

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Chapter 1 - Participation and Activities in the Crab Fishery

This chapter provides information on participation and activities of commercial fishermen who were reported to have landed or sold at least a pound of crabs to a wholesale/retail dealer in Louisiana. The information provided includes the number of fishermen with the species of crab they landed and sold, parish of residence as well as number of fishing vessels that reportedly landed crabs, the license type and parish of residence of the vessel owners, etc.

The impact of hurricanes Katrina/Rita in 2005 and Gustav/Ike in 2008 are also discussed. Some aspects of this chapter are aggregated or simply excluded when there are scanty and discontinuous information or when such information violates the confidentiality provisions of the State of Louisiana (e.g., when the number of participants involved is less than four).

1.1 Crab Fishermen and Dealers

The number of fishermen who reported landing or sales of at least a pound of blue or stone crabs in the trip ticket program from 2000 through 2009 is shown in Figure 1.1. This number may include fishermen who did not target crab directly but caught it as by-catch crabs when fishing for non-crab species.

On average, approximately 99.9 percent of those who reported landing of a crab species landed blue crabs in the period between 2000 and 2009, while only 3.1 percent landed stone crabs. In addition, the total number of crab fishermen declined by 60.6 percent from 2,233 in 2000 to 1,352 in 2006. Similar downward trend occurred for the number of fishermen who landed or sold blue crab (between 2,231 and 1,352) for the same period, while the range was narrower, between 4,974 and 2,554, for those who landed blue crab. The number of individuals

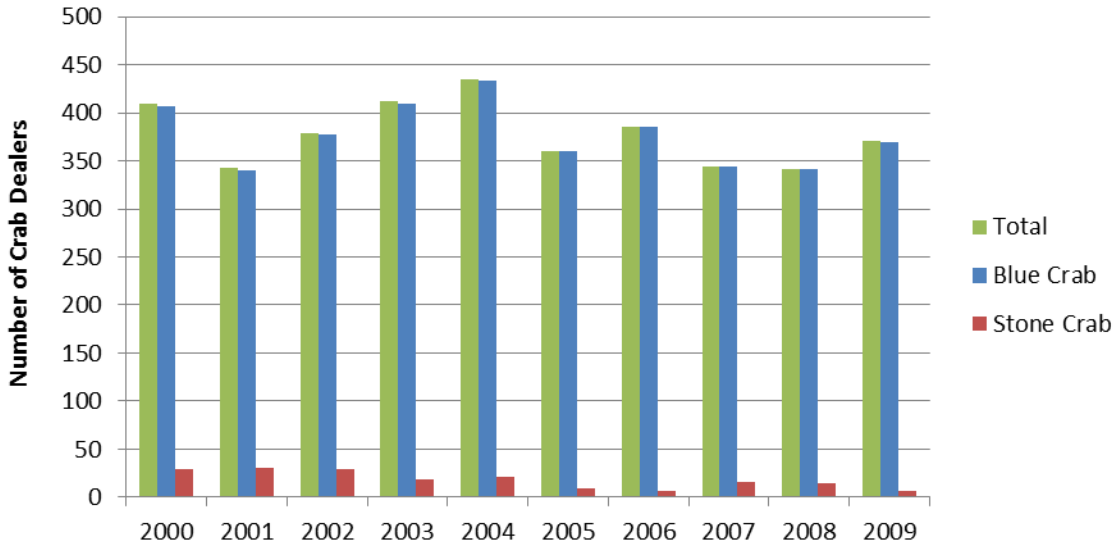
Source: Appendix Table A.1.

Figure 1.1 Number of Fishermen Who Landed and Sold Crabs by Species, 2000 – 2009

who engaged in stone crab fishing fell from 150 fishermen in 2001 to 16 fishermen in 2009.

Figure 1.2 shows the number of wholesale/retail dealers who purchased at least a pound of crabs at first point of sales between 2000 and 2009. The number of individuals who reportedly purchased at least a species of crabs at Louisiana docks fluctuated between 341 dealers in 2008 and 435 dealers in 2004. Of these dealers, 99.7 percent bought blue crabs, while only 4.8 percent bought stone crabs.

Readers should not attempt to combine the information in this section to compute fisherman-dealer ratios for the crab fishery for such ratios will be misleading. An important reason for this caveat is that individuals who held a fresh product dealer license double up as both fishermen and seafood dealers who sell their catches directly to the public. Also, the number of fishermen who harvested and the number of dealers who bought crabs might have included non-active participants in the crab fishery.

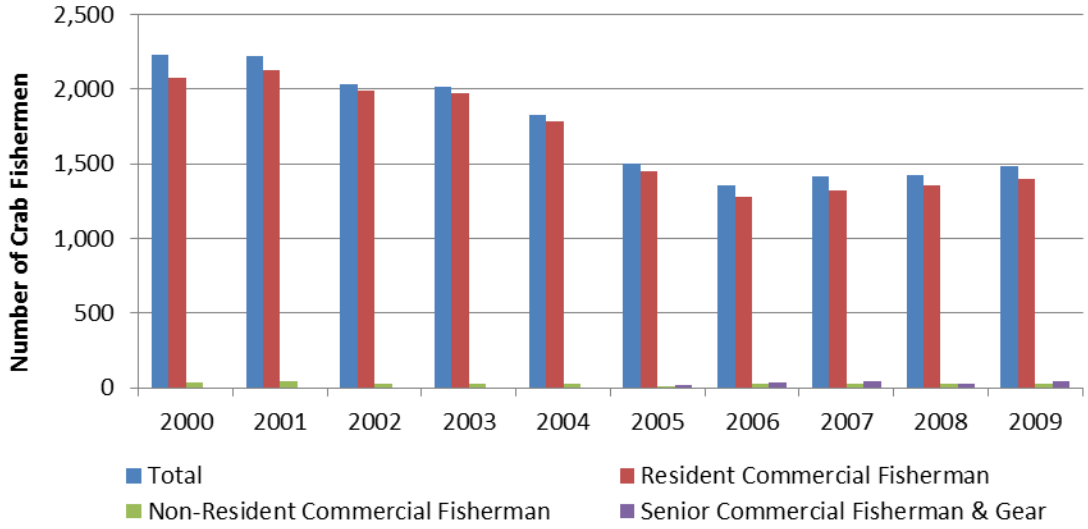


Source: Appendix Table A.2.

Figure 1.2 Number of Dealers Who Purchased Crabs by Species, 2000 – 2009

1.1.1 Number of Crab Fishermen by Type of Fishing License

The types of commercial fishing license held by crab fishermen from 2000 through 2009 are shown in Figure 1.3. The majority (95.7 percent) of fishermen who landed or sold crabs in a given year held a residential commercial fisherman license. The number of crab fishermen who purchased a resident commercial fisherman license fluctuated between 1,278 fishermen in 2006 and 2,132 individuals in 2001. The remaining crab fishermen held non-resident (including alien fishermen) and senior commercial fisherman and gear licenses. The senior commercial fishermen and gear license is a type of commercial fishing license that was first made available in 2005.



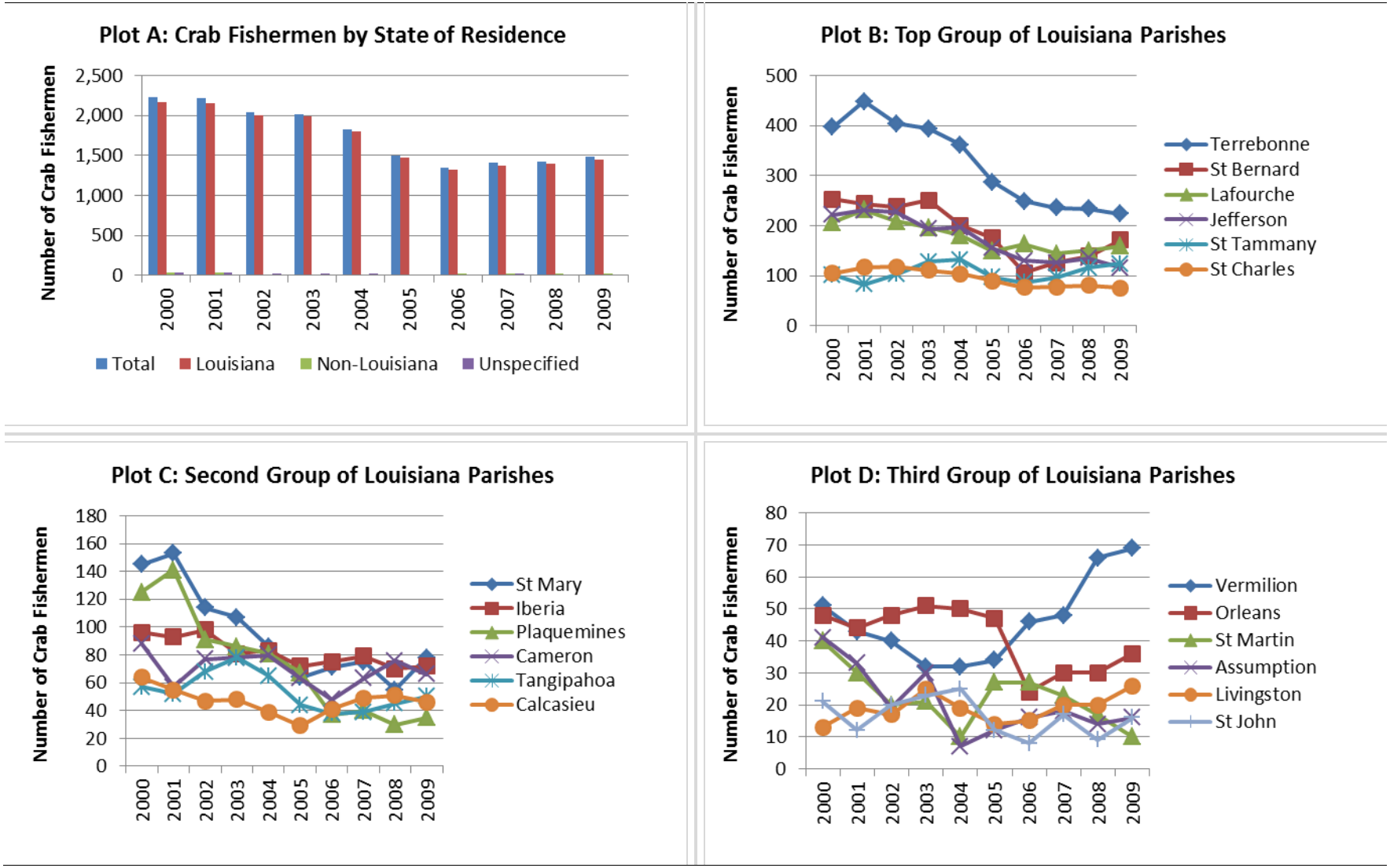
Source: Appendix Table A.3. Note: Alien commercial fishermen license was discontinued after 2000 and it was combined with non-resident commercial fisherman license. Also 2005 was the first year for the senior commercial fishermen and gear license.

Figure 1.3 Number of Crab Fishermen by Type of Fishing License, 2000 – 2009

1.1.2 Number of Crab Fishermen by Place of Residence

The number of fishermen who landed or sold crabs in Louisiana by the place where they resided is shown in Figure 1.4 (Plots A to D). Plot A shows that an average of 97.7 percent of crab fishermen resided in Louisiana in every year from 2000 to 2009. A very small number of crabbers lived outside of Louisiana, with an average of 19 persons per year between 2000 and 2009. See Chapter 2 (section 2.2.1) for information on landings and dockside values of crabs reported on individuals who resided in non-Louisiana states.

Plots B to D are comprised of all parishes of residence in Louisiana whose resident crab fishermen numbered an average of 8 fishermen or over from 2000 through 2009. In a given year within the 2000-2009 period, most of the crab fishermen resided in Terrebonne Parish (between 224 crab fishermen in 2009 and 448 crab fishermen in 2001), followed by fishermen who resided in St. Bernard Parish (106 crab fishermen in 2006 and 253 crab fishermen in 2000). Next is



Source: Appendix Table A.4. See Appendix Tables A.5 and A.6 and Appendix Figures A.1 and A.2 for number of fishermen by crab species and place of residence.

Figure 1.4 Number of Crab Fishermen by Place of Residence, 2000 – 2009

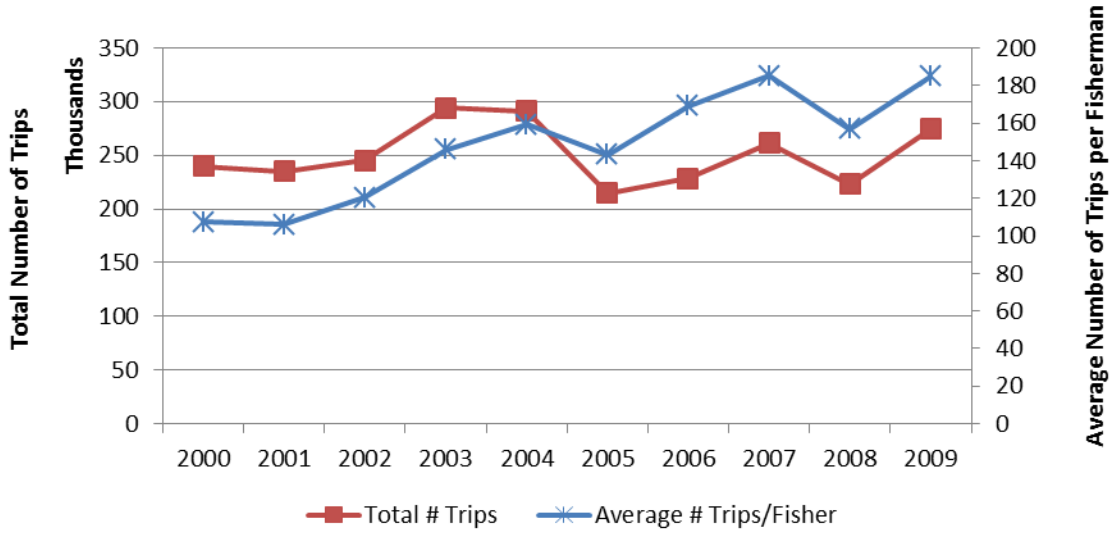
Lafourche Parish with 144 crab fishermen in 2007 and 232 individuals in 2001, followed by Jefferson Parish where 231 crab fishermen resided in 2001 and 116 crab fishermen resided in 2009.

The number of crabbers in some of the parishes show consistent upward trends in the second half of the 2000-2009 period, with Calcasieu, Vermilion, and Livingston Parishes showing the strongest increase since 2005 or thereabout (Plots C and D). On average, the number of resident crabbers increased between 2005 and 2009 by 102.9 percent in Vermillion Parish, by 58.6 percent in Calcasieu Parish and by 85.7 percent in Livingston Parish. With a general decline in the number of fishermen who landed or sold crabs in Louisiana from 2000 through 2009 (Figure 1.1), the previous findings might be an indication of a shift in parish of residence of crabbers after hurricanes Katrina and Rita devastated Louisiana in 2005.

1.2 Crab Fishing Trips

Crab fishing trips include all fishing trips associated with the sale of at least a species of crab on a trip ticket regardless of whether crab was the original target or not for the fishermen. Number of trips is determined using the length of time a trip takes from and to a starting point (e.g., a dock). The number and the length of fishing trips associated with crab landings from 2000 through 2009 are shown in Figures 1.5 and 1.6.

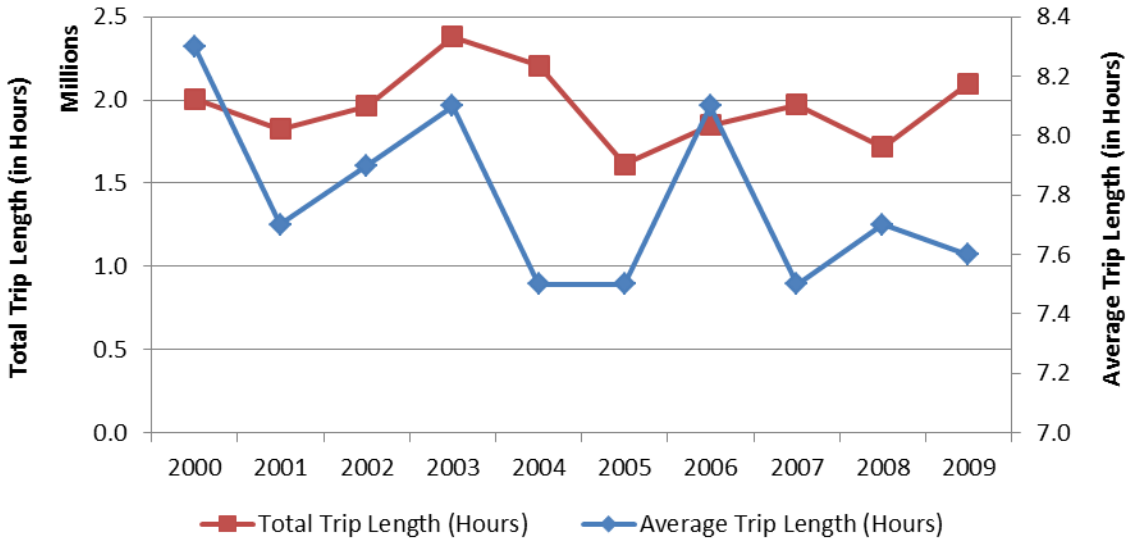
Figure 1.5 shows the yearly total number of trips and the average numbers of trips per fishermen, which were associated with crab fishing between 2000 and 2009. During this period, the total number of crab fishing trips per year ranged from 214,957 trips in 2005 to 294,240 trips in 2003 and the average number of crabbing trips per fisherman per year climbed, only with dual interruptions, from 106 trips in 2001 to 185 trips in 2007 and 2009.



Source: Appendix Table A.7.

Figure 1.5 Total and Average Numbers of Crab Fishing Trips, 2000 – 2009

Figure 1.6 shows the total and average length (in hours) of trips associated with crab fishing (i.e., from when the fishermen left the dock, boat launch, etc., to when the individual arrived at the same starting point) reported on the trip ticket in the period between 2000 and 2009. The total length of trips in hours per year ranged from approximately 1.6 million hours (or 67,161 days) in 2005 to 2.4 million hours (or 99,203 days) in 2003. The average length of crab fishing trips was more erratic, fluctuating between 7.5 hours in 2004 or 2005 and 8.3 hours in 2000.



Source: Appendix Table A.7.

Figure 1.6 Total and Average Lengths of Crab Fishing Trips, 2000 – 2009

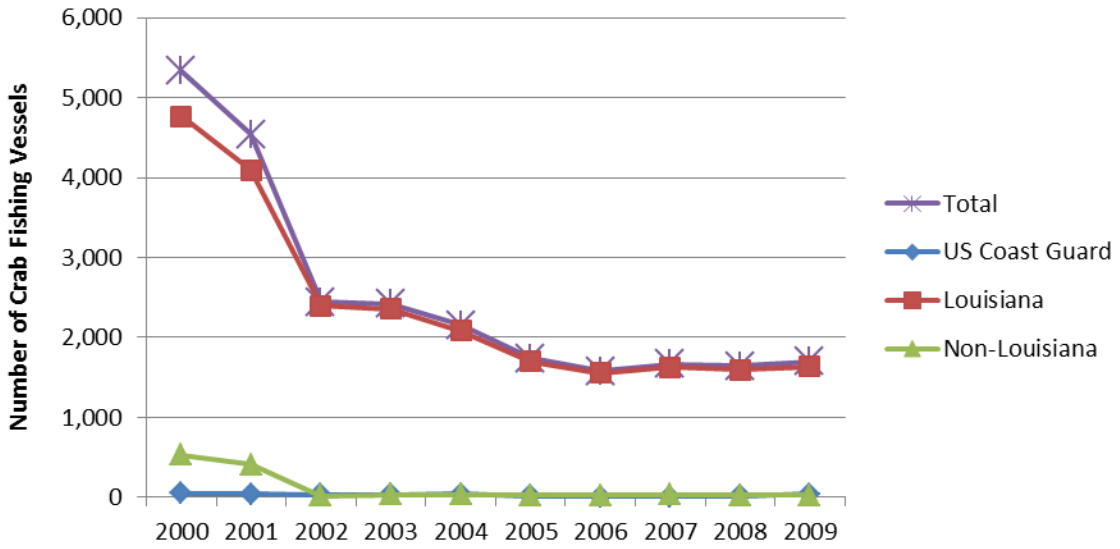
1.3 Crab Fishing Vessels

This section contains summary information on fishing vessels, which reportedly landed at least a species of crab (hereafter crab vessels) from 2000 through 2009. This information, facilitated by the available vessel registration or documentation numbers, includes the number of vessels, type of registration, residence status and parish of residence of vessel owners and the length (size) categories of the vessels. Note that crabs might not have been the target for the fishing trip.

1.3.1 Crab Vessels by Type of Registration

Fishing vessels can be registered with a state or documented with the U.S. Coast Guard. Hence, the fishing vessels which landed crabs of any quantity were categorized according to the types of registration: state registered or Coast Guard documented.

Figure 1.7 shows that the majority (94.4 percent) of the total crab vessels were registered in Louisiana per year from 2000 through 2009, followed by those registered in non-Louisiana states (4.5 percent). A relatively small number of crab vessels, averaging 28 vessels per year (1.1 percent), were documented with the U.S. Coast Guard.



Source: Appendix Table A.8.

Figure 1.7 Number of Crab Fishing Vessels by Type of Registration, 2000 – 2009

1.3.2 Crab Vessels by Crab Species

The total number of fishing vessels and the species of crab they reportedly landed in the period between 2000 and 2009 are shown in Figure 1.8. The total number of crab fishing vessels fell sharply by 54.2 percent from a period-wide high of 5,334 vessels in 2000 to 2,444 vessels in 2002. Since then, the number of crab vessels has continued to fall moderately, reaching its low in 2006 with approximately 1,581 vessels. Similar to this finding in magnitude and trend was the number of fishing vessels, which landed blue crabs. Blue crab vessels decreased by 54.2 percent

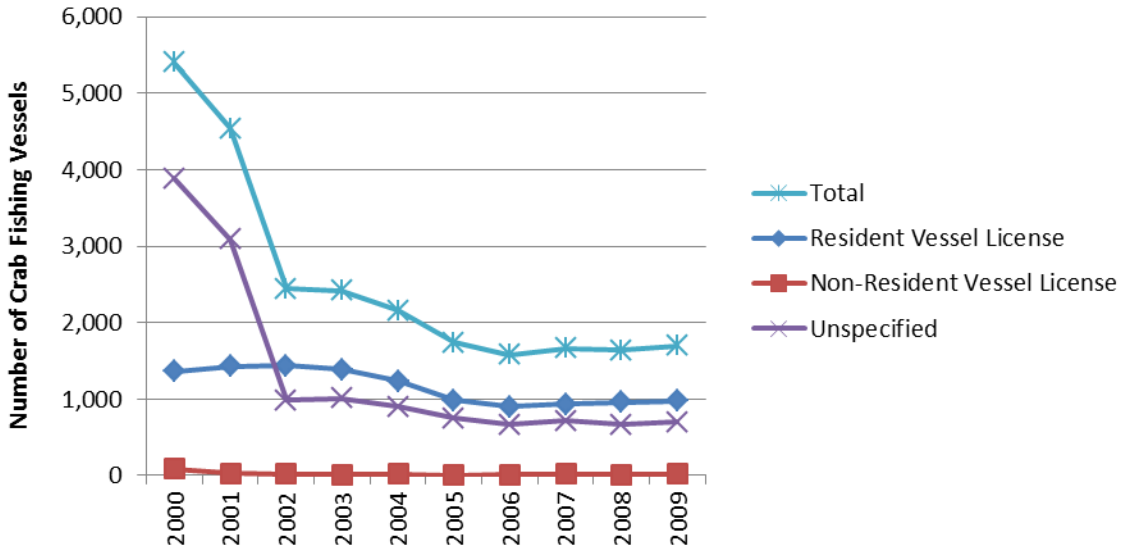
Source: Appendix Table A.9.

Figure 1.8 Number of Crab Fishing Vessels by Species of Crab Landed, 2000 – 2009

for the same period. The number of fishing vessels that landed stone crabs also declined from a high of 175 vessels in 2000 to a low of only 18 vessels in 2005.

1.3.3 Residence Status and Parish of Residence of Crab Vessel Owners

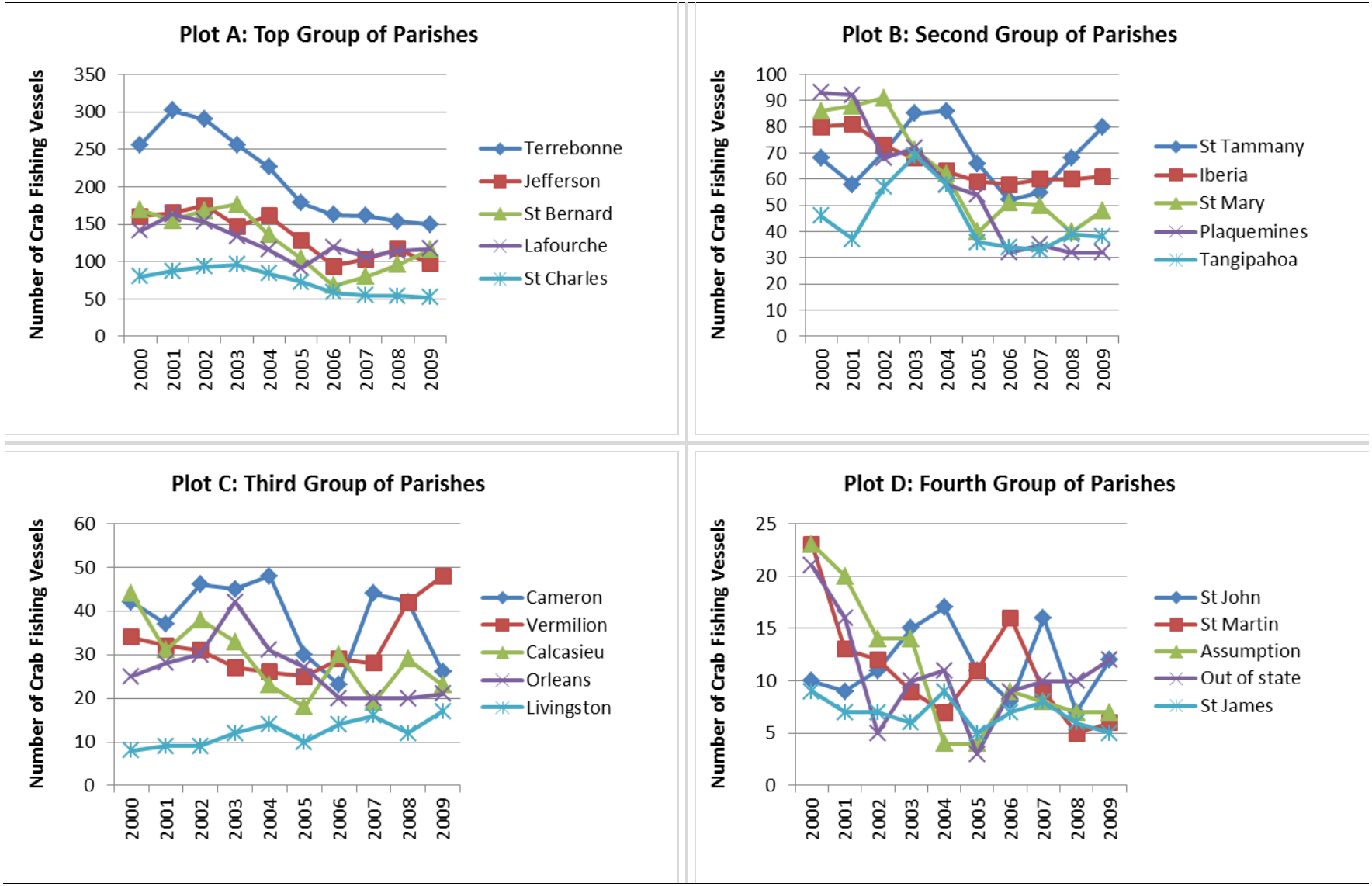
Residence status of owners of fishing vessels, which landed crabs in Louisiana, was determined by the type of commercial vessel license that they purchased during 2000-2009 period (Figure 1.9). The number of fishing vessels whose license types were specified or recorded in the trip ticket in 2000 and 2001 were very small (less than one-third). However, this number rose since 2002 to an annual average of 1,119 vessels (58.3 percent). Of these 1,119 vessels whose license types were specified in the trip tickets, approximately 98.6 percent (between 904 in 2006 and 1,439 in 2002) were owned by individuals who resided in Louisiana.



Source: Appendix Table A.10. Crab vessels whose license type was specified averaged 58.3 percent between 2002 and 2009.

Figure 1.9 Number of Crab Vessels by Owner's Residence Status, 2000 – 2009

Figure 1.10, Plots A to D shows the number of fishing vessels, which landed crabs in Louisiana from 2000 through 2009 by their owners' parishes of residence. Plot A indicated that Terrebonne (with number of vessels ranging from 150 in 2009 to 302 in 2001) and Jefferson (between 94 vessels in 2005 and 175 vessels in 2002) clearly topped the list of parishes where most of the crab vessel owners resided. Next parishes of crab vessel owners, with the average number of vessels between 2000 and 2009, are St. Bernard (127 vessels), Lafourche (125 vessels), St. Charles (73 vessels) and St. Tammany (69 vessels) parishes. The number of crab vessel owners who resided in non-Louisiana states averaged only 11 vessels from 2000 to 2009. See Chapter 2 (section 2.2.1) for information on crab landings and values reported on individuals who resided out of the State of Louisiana.



Source: Appendix Table A.11.

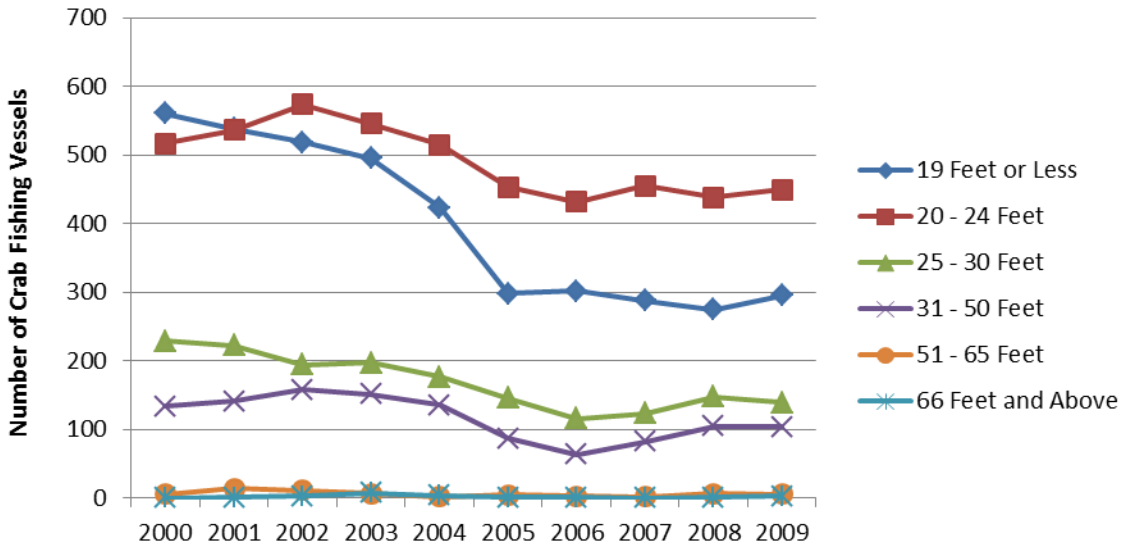
Figure 1.10 Number of Crab Vessels by Owner's Parish of Residence, 2000 – 2009

The number of vessels rose sharply in Vermilion (65.5 percent), St. Tammany (53.8 percent) and St. Bernard (70.6 percent) parishes between 2006 and 2009, a sign that might indicate a recovery or relocation of vessel owners mainly to these parishes after hurricane Katrina of 2005 that affected that area. This observation is similar to the findings in Figure 1.4 indicating that most of the crab fishermen might be fishing with their own vessels with which they relocated.

1.3.4 Length of Crab Vessels

Fishing vessels, which landed crabs from 2000 through 2009, were group into six size categories based on the foot length of the vessels. These categories are “19 feet or less," “20-24 feet,” “25-30 feet”, “31-50 feet”, “51-65 feet” and “66 feet or over.” Figure 1.11 shows the number of crab vessels by length category in the period between 2000 and 2009.

Similar to section 1.3.3, the number of fishing vessels whose lengths were specified or recorded in the trip ticket in 2000 and 2001 were very small (less than one-third). However, this number rose since 2002 to an annual average of 1,119 vessels (58.3 percent). Of these 1,119 vessels whose lengths were specified in the trip tickets, a three-fourth (75.6 percent) was 24 feet long or less. Specifically, 43.2 percent (between 432 vessels in 2006 and 574 vessels in 2002) was 20 to 24 feet long and 32.4 percent (between 275 vessels in 2008 and 519 vessels in 2002) was 19 feet long or less. Category of vessels, which are 25 to 30 feet long constituted about 13.9 percent of the vessels whose lengths were reported from 2002 to 2009, while vessels of length category “31 to 50 feet” made up 9.9 percent for the same period. Others are vessels over 50 feet long (0.7 percent), averaging only nine (9) vessels.

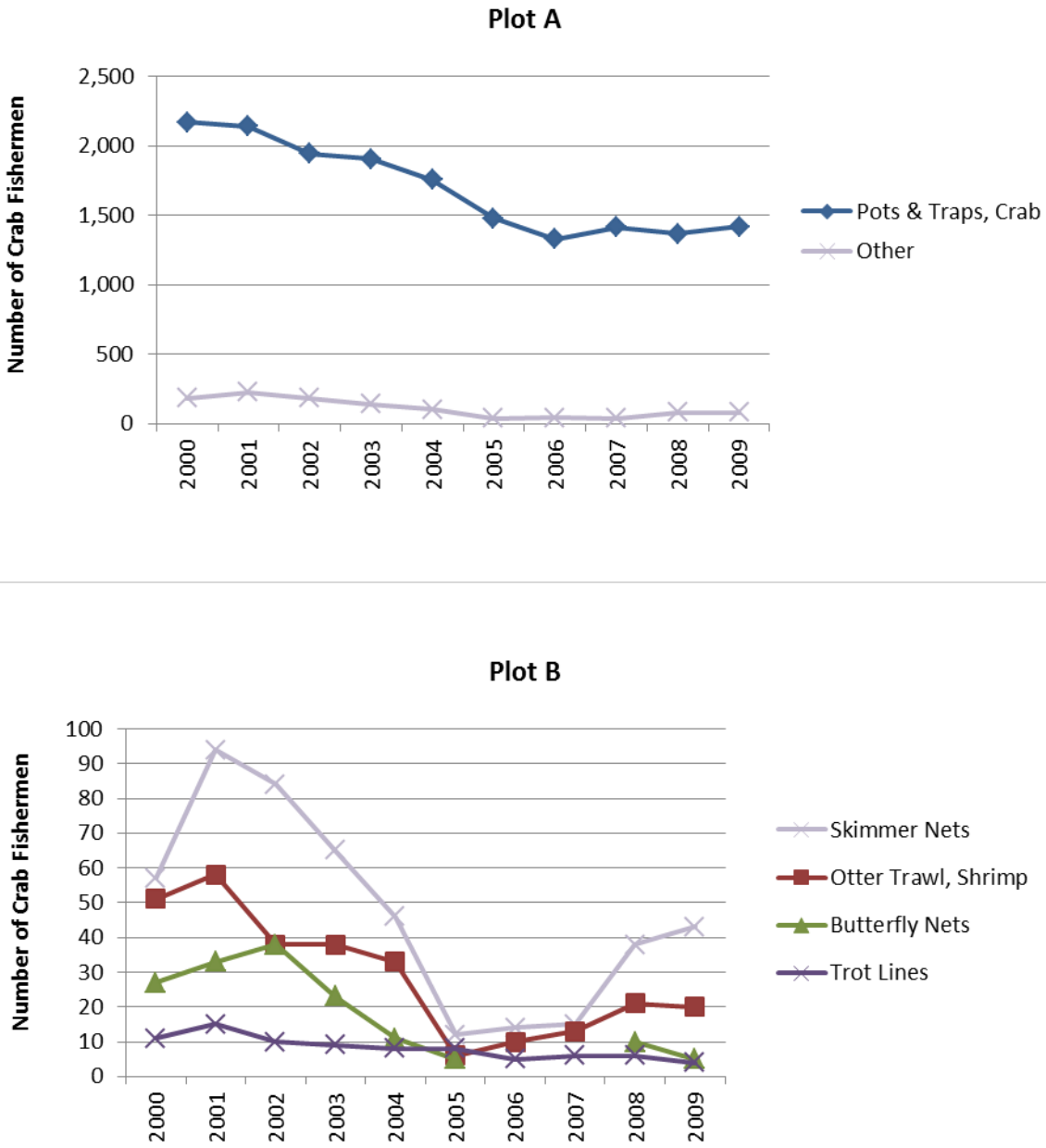


Source: Appendix Table A.12. Length was reported for an annual average of 58.3 percent of fishing vessels from 2002 to 2009.

Figure 1.11 Number of Crab Vessels by Vessel Length Category, 2000 – 2009

1.4 Crab Fishing Gear

The number of fishermen with the types of gear they used to harvest crabs from 2000 through 2009 are shown in Figure 1.12. Plot A shows that crab pots and traps were the single most popular gear used by 96.6 percent of individuals (1,691 fishermen) who landed crabs in Louisiana in the 2000-2009 period. The number of fishermen who used this gear ranged from 1,329 in 2006 to 2,169 in 2002. Other gear types include skimmer nets, shrimp otter trawls, butterfly nets and so on (Plot B).



Source: Appendix Table A.13. Plot B breaks down other gear category in Plot A.

Figure 1.12 Number of Fishermen by Crab Fishing Gear, 2000 – 2009

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Chapter 2 - Crab Landings, Dockside Prices and Values

This chapter reports information on the volume of crabs landed in Louisiana as well as their dockside prices and values. Crabs are landed at the dock whole (blue crabs) or as claws (stone crabs). During the analysis, crab claws were converted to the whole crab using a conversion factor determined by the fishery scientists. Hence, the pounds, prices and values of crabs presented in this chapter are based on the whole condition.

Dockside prices and values are measured in both nominal (actual) and real terms. The real prices (real values) are derived by adjusting the nominal prices (nominal values), using the GDP deflator, which is expressed in 2005 dollar. When necessary, actual and real prices as well as actual and real values of crab landed or sold are jointly reported. Otherwise, they are included in the Appendix section. In addition, information is presented in aggregates when there is a risk of violating the statutory confidentiality provisions of the State of Louisiana.

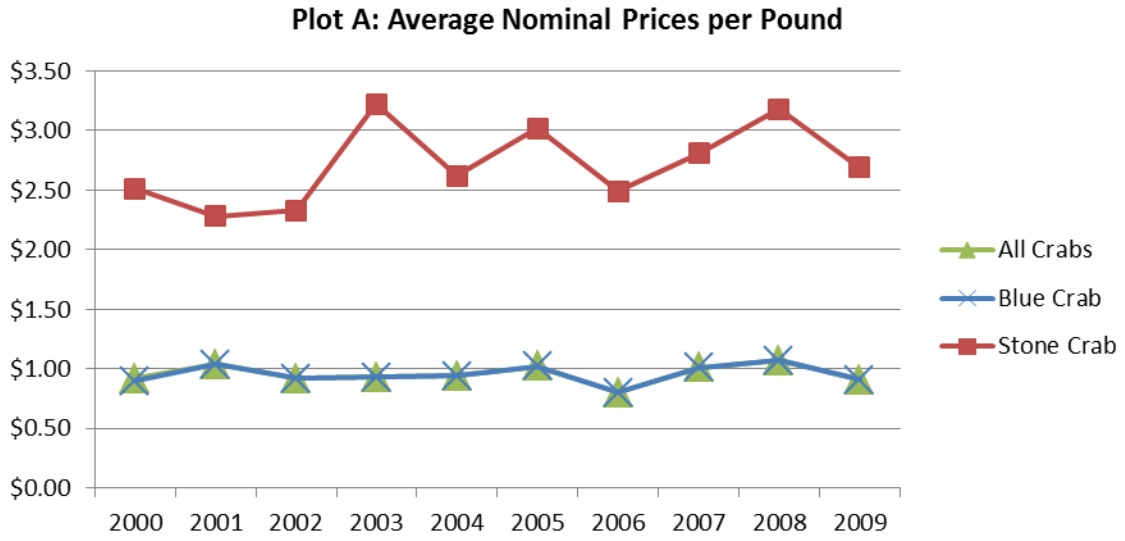
2.1 Landings, Average Dockside Prices and Values of Crabs by Species

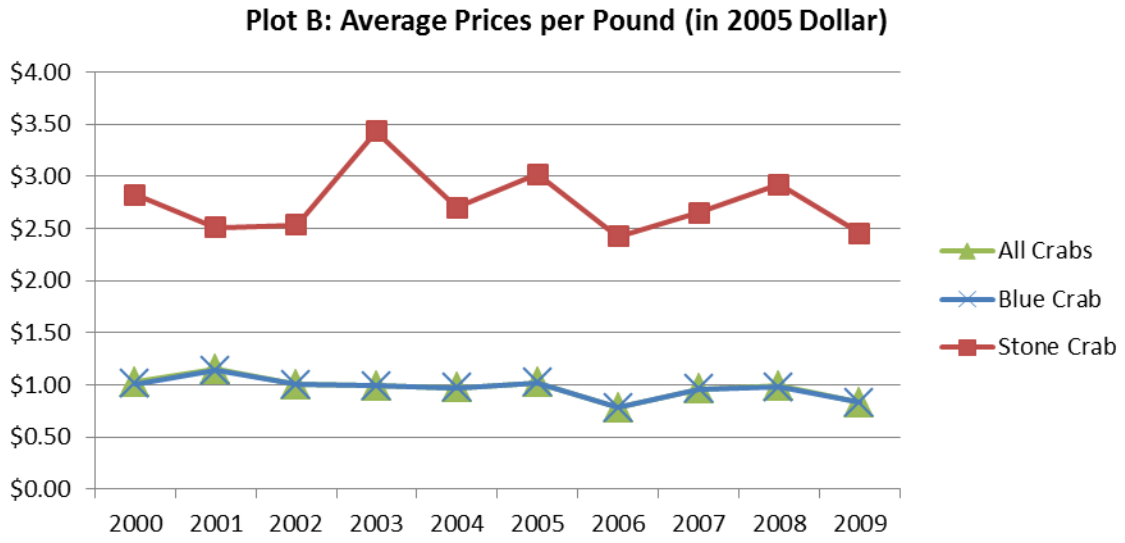
The volume of crabs landed or sold at Louisiana docks from 2000 through 2009 is shown in Figure 2.1. The total pounds of crab landed ranged between 38.1 million in 2005 and 53.5 million in 2006, of which an average of over 99.9 percent was blue crabs.

The average nominal dockside prices and the average real dockside prices (prices measured in 2005 dollar using GDP deflator) per pound of crab by species from 2000 through 2009 are presented in Plots A and B of Figure 2.2, respectively. The average nominal prices are the prices actually paid by the seafood dealers to the fishermen at the docks while the average real prices are the averages of nominal prices in 2005 dollar.

Source: Appendix Table B.1.

Figure 2.1 Crab Landings by Species, 2000 – 2009





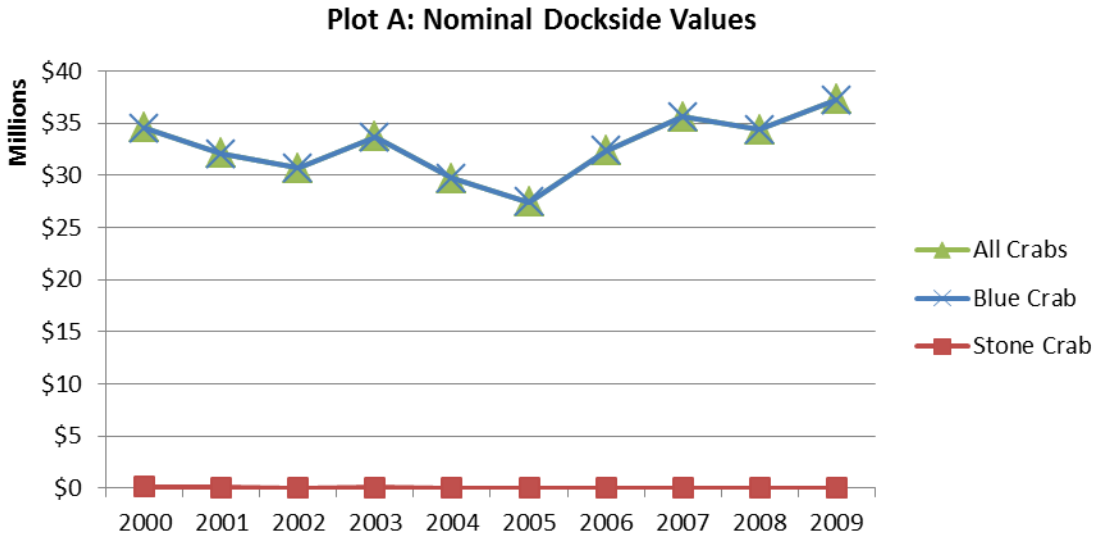
Source: Appendix Table B.2.

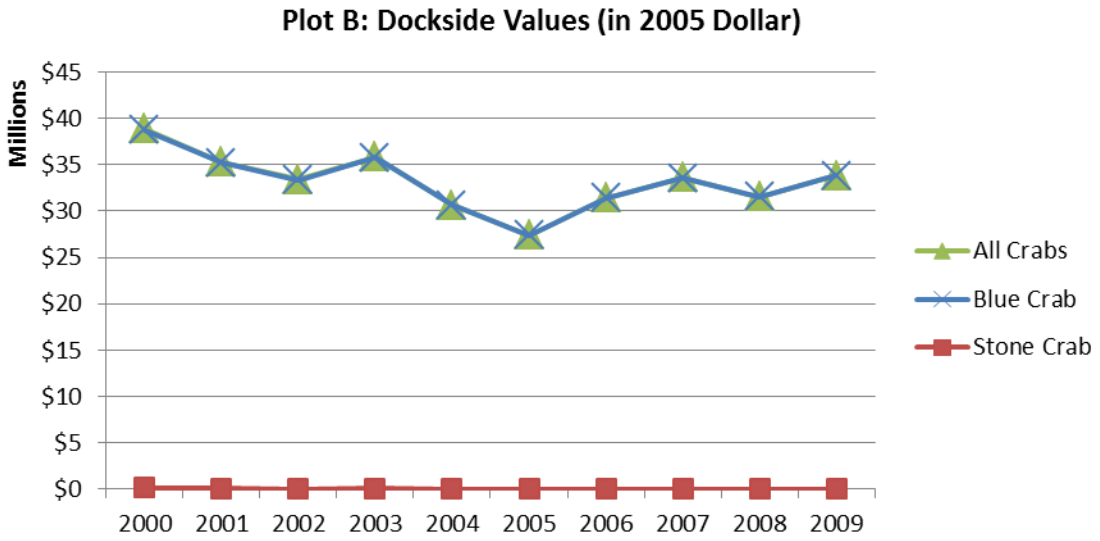
Figure 2.2 Average Dockside Prices of Crabs by Species, 2000 – 2009

Although both plots appear to have similar patterns, they are typically used under different scenarios. Plot A would be appropriate when comparing prices across crab species for a given year, while plot B would be appropriate to address price trends or for comparisons of prices between two or more years for a given crab species. Hence, the annual average nominal dockside price per pound of stone crabs ($2.72) was three times higher than the yearly average nominal dockside price of blue crabs per pound ($0.95) in the period between 2000 and 2009 (Plot A). Price trends show that average dockside price of blue crabs ranged from $0.78 per pound in 2006 to $1.14 per pound in 2001 (Plot B), while the average dockside price of stone crabs ranged from $2.42 per pound in 2006 to $3.43 per pound in 2003. In Plots A and B, the average dockside price of blue crabs was at par with the average dockside price of all crabs.

The nominal (actual) values and the real values (nominal values adjusted for inflation using GDP deflator) of crabs landed or sold at the Louisiana docks from 2000 through 2009 are shown in Plots A and B of Figure 2.3, respectively. Plot A would be appropriate when comparing values across crab species for a given year, while plot B would be appropriate when comparing values between two or more years for a given crab species.

Plot A shows that the average nominal value of crabs landed in Louisiana per year between 2000 and 2009 was $32.8 million, of which blue crabs constituted approximately 99.9 percent. Plot B shows, that for the same period, the total real value of crabs sold in Louisiana fluctuated between a low of $27.4 million in 2005 and a high of $37.2 million in 2009. Blue crab values fluctuated between $27.4 million in 2005 and $38.9 million in 2000, while stone crab value ranged from $1,777 in 2005 to $127,620 in 2000.





Source: Appendix Table B.3.

Figure 2.3 Dockside Values of Crabs by Species, 2000 – 2009

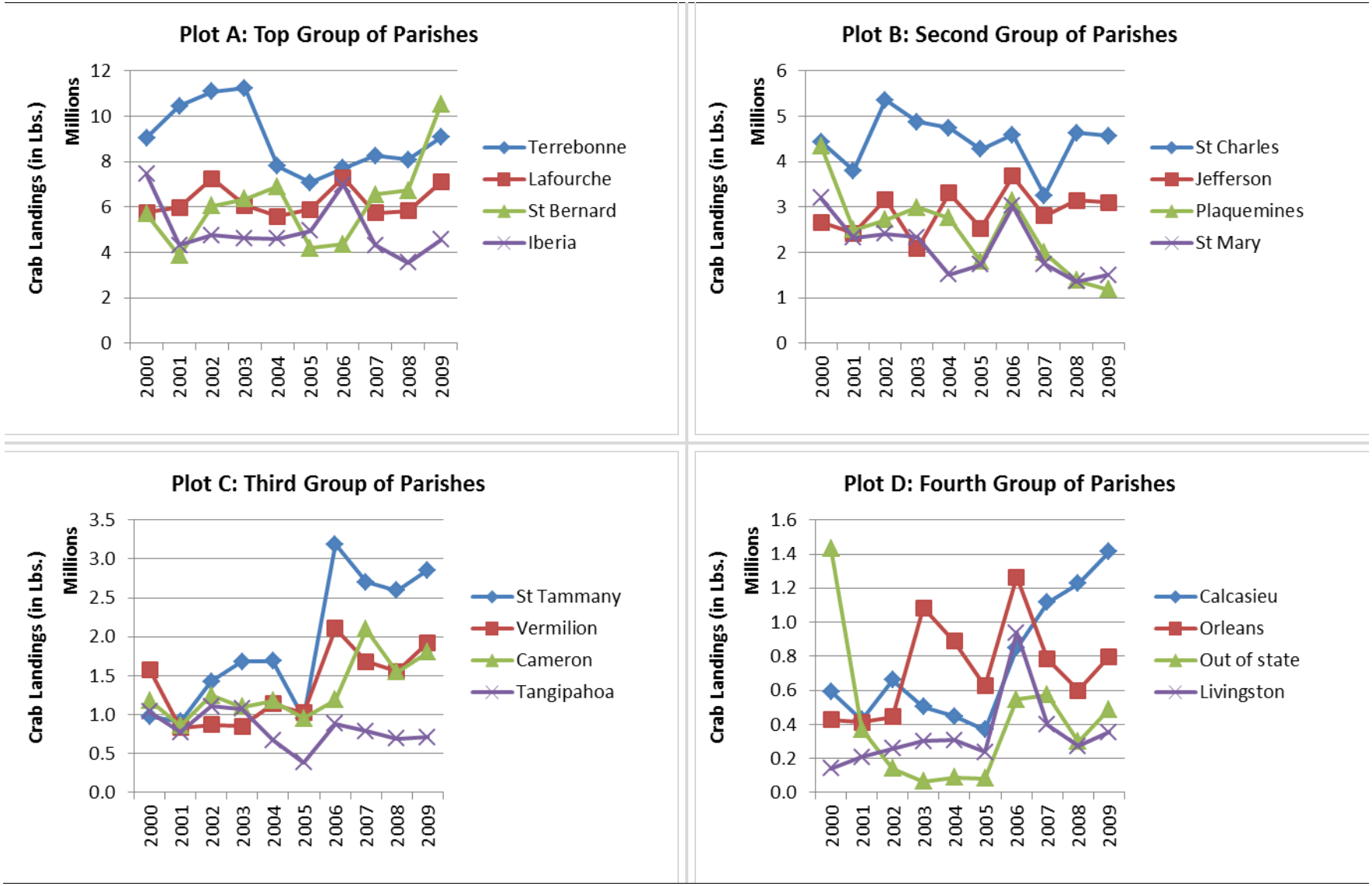
2.2 Landings and Dockside Values of Crabs by Fisherman's Parish of Residence

Figure 2.4, Plots A to D shows the crab landings by major parish of residence of fishermen from 2000 through 2009. In order of magnitudes, Plot A shows that Terrebonne, Lafourche and St. Bernard were the top parishes where fishermen who landed or sold crabs resided. Their average annual crab landings from 2000 through 2009 amounted to 9.0 million, 6.3 million and 6.1 million pounds, respectively. These parishes were followed by fishermen who resided in Iberia parish with annual crab landings of 5.0 million pounds and fishermen who resided in St. Charles with annual crab landings of 4.5 million.

Additional parishes, with the average volume of crab landed by their residents between 2000 and 2009, are Jefferson (2.9 million pounds), Plaquemines (2.5 million pounds) and St. Mary parishes (2.1 million pounds). All other parishes individually recorded an amount of crab landings less than 2.0 million pound.

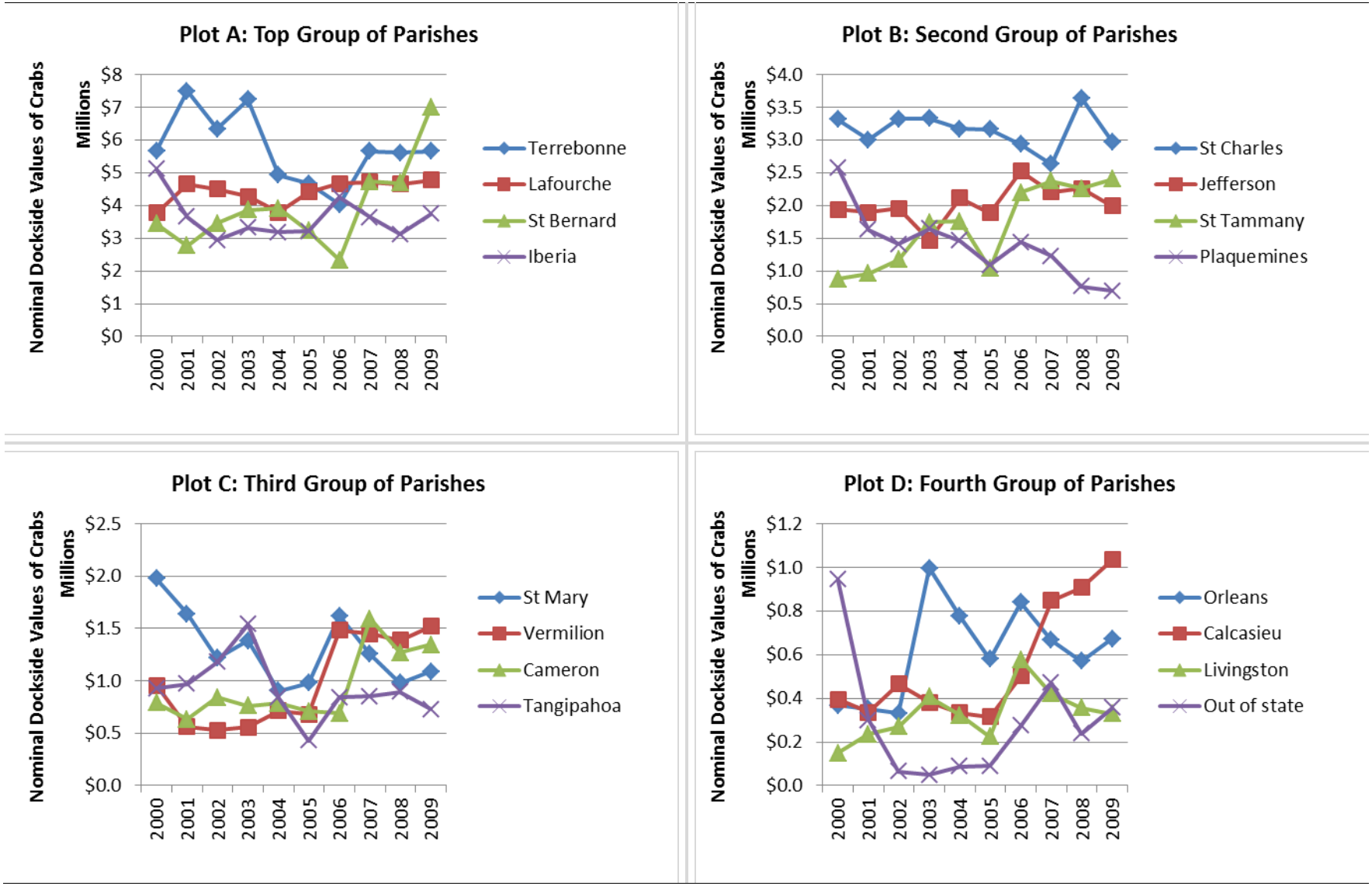
Figure 2.5 shows the nominal values of crabs landed and sold by fishermen at Louisiana docks from 2000 through 2009 by their parish of residence. Similar to Figure 2.4, Terrebonne (with approximately $5.7 million), Lafourche (with $4.4 million) and St. Bernard (with $3.9 million) topped other parishes in terms of the annual average values of crabs sold by the fishermen who resided in them. Likewise, fishermen who resided in Iberia, St. Charles and Jefferson landed crabs with an annual dockside worth of $3.6 million, $3.2 million and $2.0 million, respectively.

The information presented in Figures 2.4 and 2.5, Appendix Figure B.1 and Appendix Tables B.4 and B.6 are particularly interesting for they show parishes whose crab landings and sales increased consistently in recent years, while other parishes' were declining. Post-2005, fishermen residing in the eastern parishes such as Assumption, Lafourche, St. Bernard and



Source: Appendix Table B.4.

Figure 2.4 Crab Landings by Fisherman's Parish of Residence, 2000 – 2009



Source: Appendix Table B.5. See Appendix Figure B.1 for the real dockside values of crabs by fisherman's parish of residence.

Figure 2.5 Nominal Dockside Values of Crab by Fisherman's Parish of Residence, 2000 – 2009

St. Tammany, the western parishes of Acadia, Beauregard, Vermilion, Cameron and Calcasieu, etc., as well as non-Louisiana residents experienced huge increases in the landings and real dockside values of crabs when compared to the preceding years. However, only the increases in Calcasieu and Vermilion (Figure 1.5) could be attributed to recovery of crab fishery or relocation of fishermen as a result of hurricanes Katrina and Rita in 2005. Others might be attributed to increased fishing efforts by existing residents.

Specifically, apart from Acadia parish whose crab landings was nearly non-existing in 2005 but amounted to over 92.2 thousand pounds ($85.8 thousand worth) in 2009, the maximum increases in crab landings between 2005 and 2009 was 606.3 percent for residents in non-Louisiana areas, 529.9 percent for Beauregard and 354.0 percent for Ascension parishes. Following this parishes were Livingston (293.2 percent), Calcasieu (282.2 percent) and Assumption (263.7 percent). The increase in crab landings for the same period was 106.4 percent for individual living in Vermilion parish.

Aside from Acadia parish, the top residences areas in terms of the maximum increases in the dockside values of crabs landed by their fishermen between 2005 and 2006-2009 period were Assumption, Beauregard and non-Louisiana. The increase in dockside values was 534.0 percent for Assumption, 480.3 percent for Beauregard and 396.6 percent for non-Louisiana residents. Other parishes, with the percent change in dockside values from 2005 to 2009, were Ascension (242.6 percent), Calcasieu (197.7 percent), Livingston (149.1 percent), St. Tammany (115.4 percent), Vermilion (111.3 percent), St. Bernard (97.0 percent), etc.

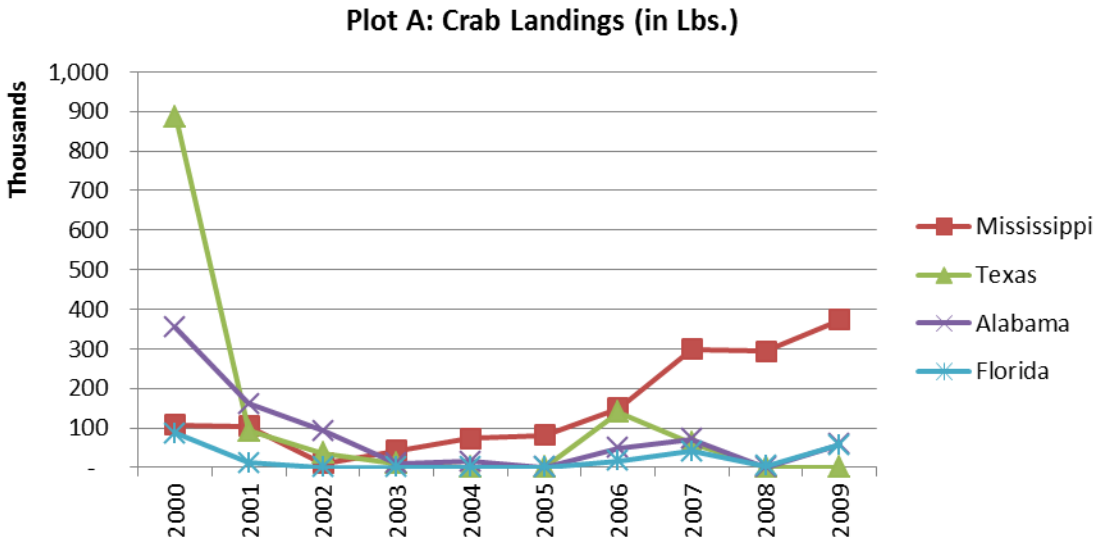
2.2.1 Landings and Dockside Values of Crabs by Non-Resident Fishermen

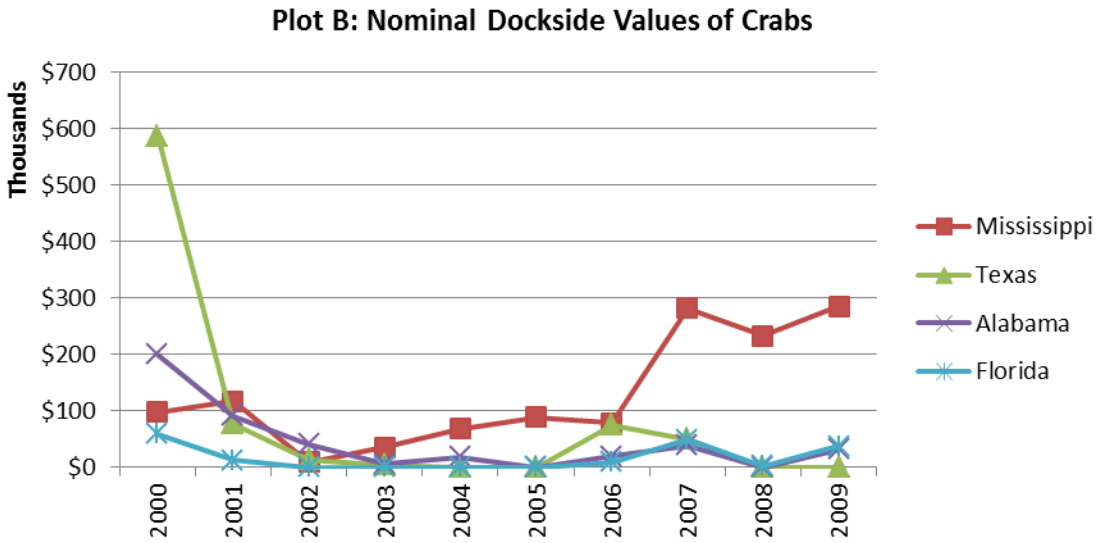
Figure 2.6 shows the crab landings (Plot A) and the nominal values of crabs sold (Plot B) at Louisiana docks by non-resident fishermen by their state of residence in the period between 2000 and 2009. The largest amounts of crab landings and sales are by fishermen who resided in Mississippi. On average, Mississippi accounted for approximately 153,251 pounds ($129,851) of crabs annually. Next is Texas, whose resident fishermen landed an average of 122,996 pounds ($81,106 worth) of crabs, followed by Alabama (with 81,582 pounds or $44,916). These three Gulf of Mexico states accounted for 87.6 percent of total volume or 89.1 percent of total nominal dockside values of crabs landed in Louisiana by non-resident fishermen.

2.3 Crab Landings, Dockside Prices and Values by LDWF Trip Ticket Basin and NMFS Grid

State waters (including inland waters and waters stretching from the shore to 3 nautical miles into the Gulf of Mexico) in Louisiana are divided into 12 River Basins for fisheries management. Individual basins are made up of designated and named fishing areas, which can be located or recognized using any devices that read longitude and latitude coordinates (See Appendix Figure D.1).

Likewise, federal waters of the Gulf of Mexico (between 3 to 200 nautical miles outside of Louisiana waters) are divided by the National Marine Fisheries Service (NMFS) into 22 Grids with five of them (Grids 13 to 17) bordering the south of Louisiana. The map of the NMFS grids is shown in Appendix Figure D.2. For every fishing trip a fisherman takes, the individual is statutorily required to state only one area where the majority of the seafood was harvested. In the next section, crab landings, average dockside prices and values by trip ticket basin and NMFS grids are presented.





Source: Appendix Tables B.7 and B.8. See Figure B.2 for dockside real dockside values of crabs by non-resident fishermen.

Figure 2.6 Landings and Nominal Dockside Values of Crab Sold by Non- Louisiana Residents, 2000 – 2009

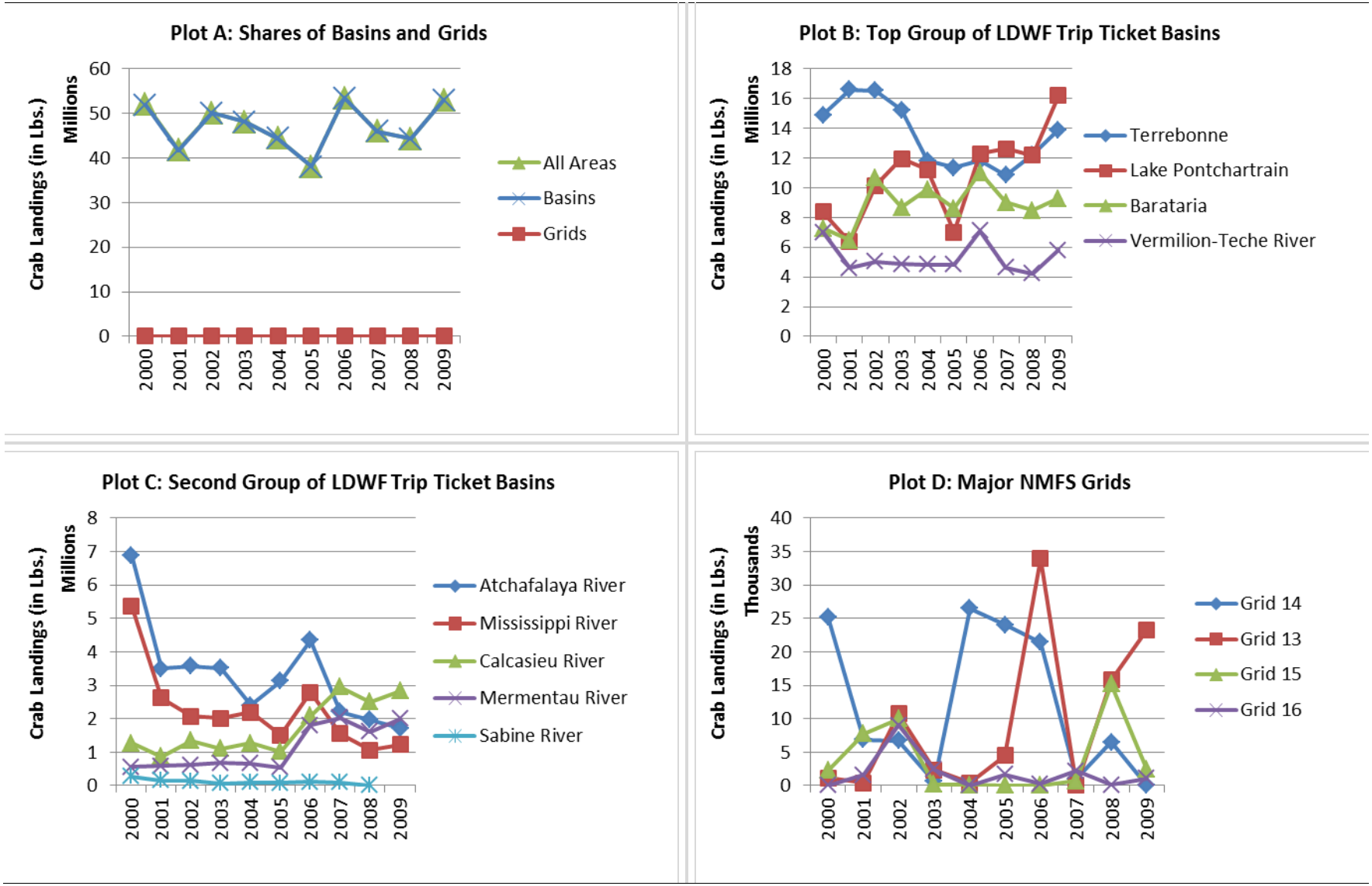
2.3.1 Crab Landings by LDWF Trip Ticket Basin and NMFS Grid

The volume of crabs harvested from the Louisiana river basins and the federal grids are shown in Figure 2.7, Plots A to D. Plot A shows that during the period between 2000 and 2009, the percent of total crab landings from the basin waters averaged 99.6 percent (51.9 million pounds) or over. Federal grids accounted for the remaining portion of crabs landed from 2000 to 2009.

Plots B and C (Figure 2.7) present the trends in crab landed from the waterbodies of the LDWF trip ticket basins, while Plot D reports crab landings by major NMFS Grid areas. Terrebonne, Lake Pontchartrain and Barataria led all basins in terms of the amount of crabs harvested from their waters. Pounds of crab landings varied from a low of 10.8 million in 2007 to a high of 16.6 million in 2001 for Terrebonne Basin, from 6.4 million in 2001 to 16.2 million in 2009 for Lake Pontchartrain Basin and from 6.5 million in 2001 to 11.0 million in 2006 for Barataria Basin.

The pounds of crabs harvested showed an upward trend for some basins at different points between 2000 and 2009. For example, Lake Pontchartrain Basin experienced an increased except for 2002 and 2005. In addition, crab harvests rose from 1.0 to 3.0 million pounds for Calcasieu Basin between 2005 and 2009. In the same period, Mermentau Basin experienced a jump from 0.6 to 2.0 million pounds.

Plot D (Figure 2.7) shows that low volume of crabs was harvested in the major NMFS grids from 2000 to 2009 except for a few number of years. For example, Grid 14 accounted for the largest crab harvest for the 2000-2009 period, which was above 20,000 pounds only in 2000 and 2004 to 2006. Following Grid 14 was Grid 13 whose crab harvest was over 20,000 pounds only in 2006 and 2009. Specifically, the volume of crabs harvested from the federal grids in the



Source: Appendix Table B.10.

Figure 2.7 Crab Landings by LDWF Trip Ticket Basin and NMFS Grid, 2000 – 2009

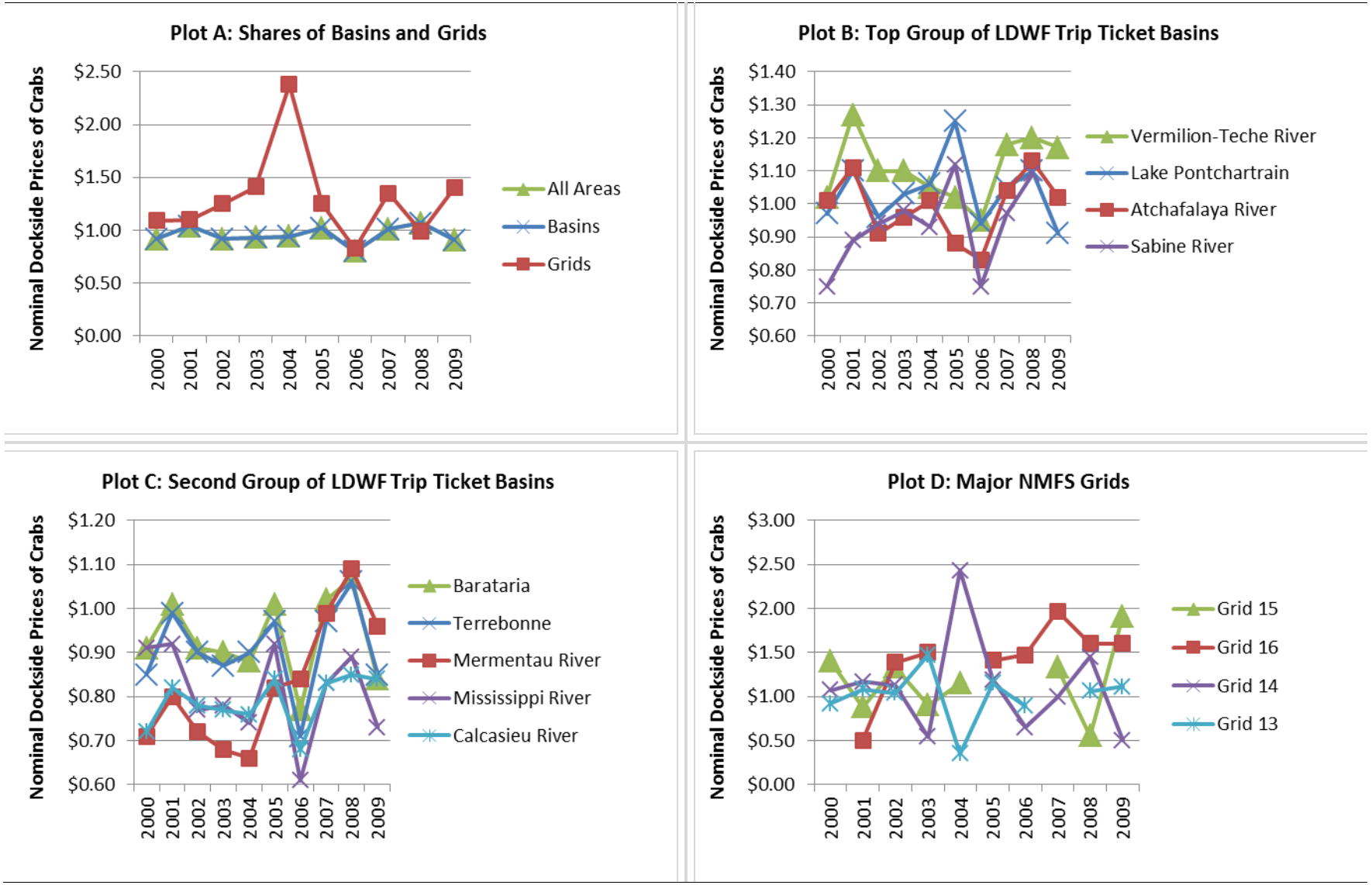
2000-2009 period averaged 27,564 pounds. Of this amount, Grids 14 and 13 accounted for averages of 11,918 and 9,242 pounds, while the remaining portion were attributed to other grids (Grids 12, 15, 16 and 17).

2.3.2 Average Dockside Prices of Crabs by LDWF Trip Ticket Basin and NMFS Grid

The average nominal dockside prices of crabs received by fishermen by reported harvest areas on the trip tickets are shown in Figure 2.8, Plots A to D. Plot A compares the basin-wide (state waters) and grid-wide (federal waters) average nominal dockside prices per pound of crabs. Crabs reportedly harvested from NMFS grids had the highest average nominal price per pound ($1.31), with an average margin over the basin-wide average price being $0.35. Only in 2008 was the average price per pound of crabs from the basins higher than the grids.

In Plots B and C, the crab harvested from the Vermilion-Teche-River, Lake Pontchartrain and Atchafalaya Basins commanded the highest nominal dockside prices from 2000 to 2009. The average nominal price per pound of crabs averaged $1.11 for Vermilion-Teche-River, $1.04 for Lake Pontchartrain and $0.99 for Atchafalaya Basins. However, the lowest nominal dockside price per pound was received on crabs from Calcasieu River Basin ($0.79). Appendix Figure B.3 shows that the average prices of crabs (in 2005 dollar) ranged from $0.93 in 2006 to $1.39 in 2001 for Vermilion-Teche-River, from $0.83 in 2009 to $1.25 in 2005 for Lake Pontchartrain and from $0.81 in 2006 to $1.22 in 2001 for Atchafalaya Basins. It is interesting to note that, except for 2009, the nominal price per pound of crabs rose within the second half of the 2000-2009 period for all basins.

For federal grids, consistent price information was available for the entire 2000-2009 period only for Grid 14. In addition, an outlier was removed for Grid 15. The resulting information, shown in Plot D, shows that fishermen received the highest nominal price per pound



Source: Appendix Table B.11. See Appendix Figure B.3 for average real dockside prices of crabs by basin and grid. An outlier ($6.00 in 2005) was removed for Grid 15.

Figure 2.8 Average Nominal Dockside Prices of Crabs by LDWF Trip Ticket Basin and NMFS Grid, 2000 – 2009

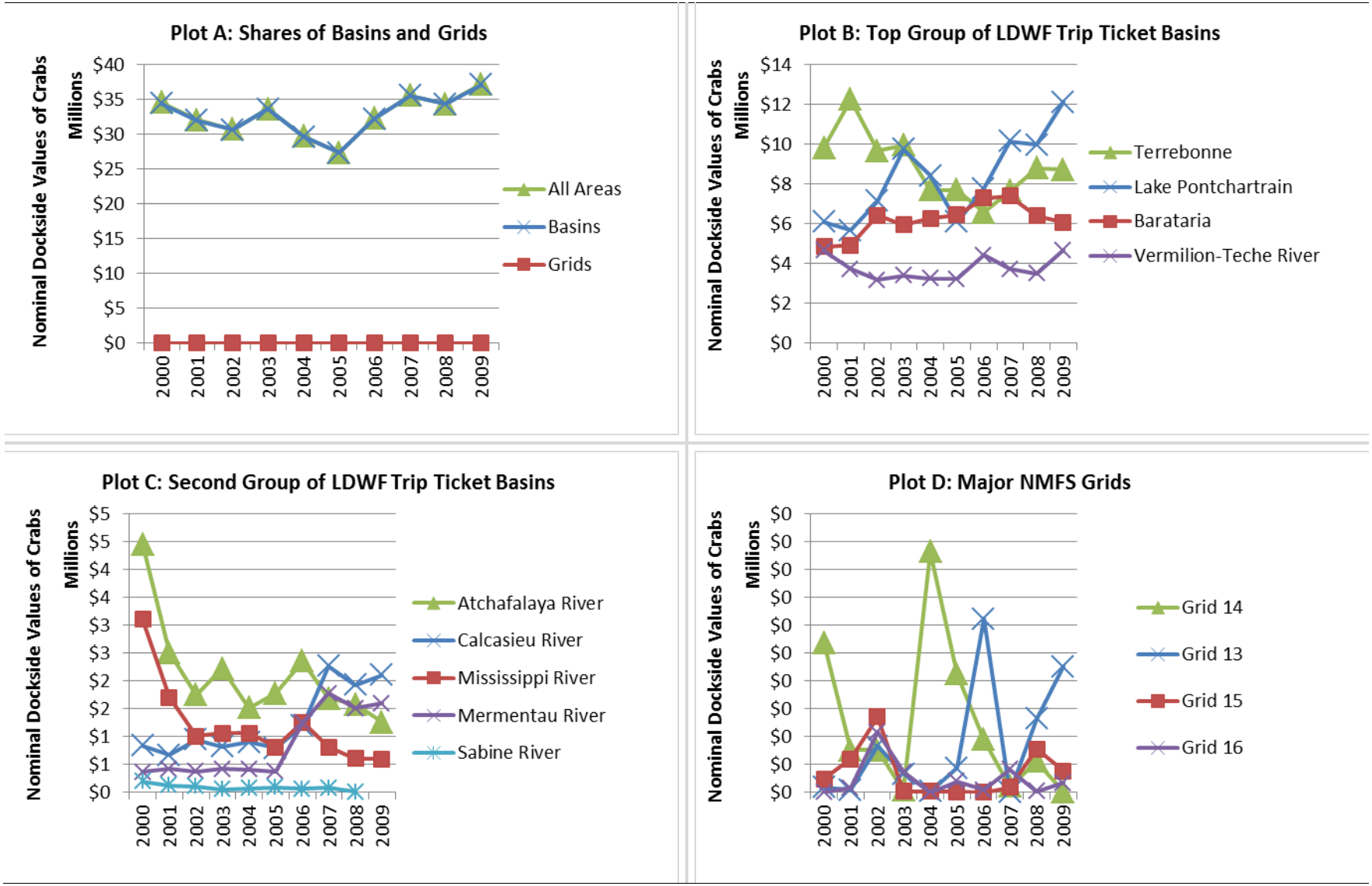
on crabs harvested from Grid 16, averaging $1.43 for the period between 2000 and 2009. Following Grid 16, with the average nominal prices per pound of crabs harvested from their waters, were Grid 15 ($1.18), Grid 14 ($1.11) and Grid 13 ($1.01). In terms of their trends, the average real dockside prices (in 2005 dollar) per pound of crabs fluctuated between $0.55 in 2001 and $1.86 in 2007 for Grid 16 and between $0.50 in 2008 and $1.73 in 2009 for Grid 15. For Grid 14, the average real dockside price of crabs per pound ranged from $0.45 in 2009 to $2.50 in 2004 and for Grid 13, it fluctuated between $0.36 in 2004 and $1.56 in 2003.

2.3.3 Dockside Values of Crabs by LDWF Trip Ticket Basin and NMFS Grid

Figure 2.9 shows the shares of the total dockside nominal values of crabs caught in Louisiana and federal waters (Plot A) as well as the values of reported crab harvest in individual LDWF trip ticket basins (Plots B and C) and individual NMFS grids (Plot D) from 2000 through 2009. See Appendix Figure B.4 for the real dockside values of crabs expressed in 2005 dollar.

Plot A shows that Louisiana territorial waters accounted for 99.9 percent of yearly nominal dockside value of crabs, averaging $32.7 million between 2000 and 2009. Federal grids accounted for an average total dockside value of only $27,292. Plots B and C indicate that Terrebonne and Lake Pontchartrain Basins competed with each other for the top position in the values of crabs harvested from basins areas pre- and post-2005. The nominal dockside values of crabs from Terrebonne and Lake Pontchartrain Basins averaged $8.9 million and $8.3 million, respectively.

Following Terrebonne and Lake Pontchartrain Basins in terms of the average nominal values of crabs harvested from their waters from 2000 to 2009 were Barataria ($6.2 million) and Vermilion-Teche River ($3.8 million). Interestingly, the sequence for the basins was similar when compared to Figure 2.7 but differs from Figure 2.8, which shows Vermilion-Teche River



Source: Appendix Table B.13. See Appendix Figure B.4 for real dockside values of crabs by basin and grid.

Figure 2.9 Nominal Dockside Values of Crab by LDWF Trip Ticket Basin and NMFS Grid, 2000 – 2009

Basin leading all other basins in the average price of crabs harvested from its waters.

With an average of $12,291, Grid 14 ranked first in the nominal dockside values of crabs harvested from its waters from 2000 to 2009. Next were Grid 13 and Grid 15, with average nominal dockside values of $9,381 and $3,847, respectively. Grid 16 accounted for the lowest crabs' nominal dockside value of $2,927 for the same period.

Appendix Figure B.4 (Plots A to D) shows the trends in the dockside values of crabs in 2005 dollar (real values) from the basins and grids in the period between 2000 and 2009. The real dockside values ranged from $6.4 million in 2006 to $13.5 million in 2001 for Terrebonne Basin, followed by Lake Pontchartrain Basin, which ranged from $6.1 million in 2005 to $11.0 million in 2009. Likewise, the dockside values fluctuated between $5.4 million in 2001 and $7.1 million in 2006 for Barataria Basin and between $3.2 million in 2005 and $5.2 million in 2000 for Vermilion-Teche River Basin. Within the second half of the 2000-2009 period, only Calcasieu and Mermentau River Basins experienced a huge jump in the real dockside values of crabs harvested from their waterbodies, doubling their values at the pre-2005 period.

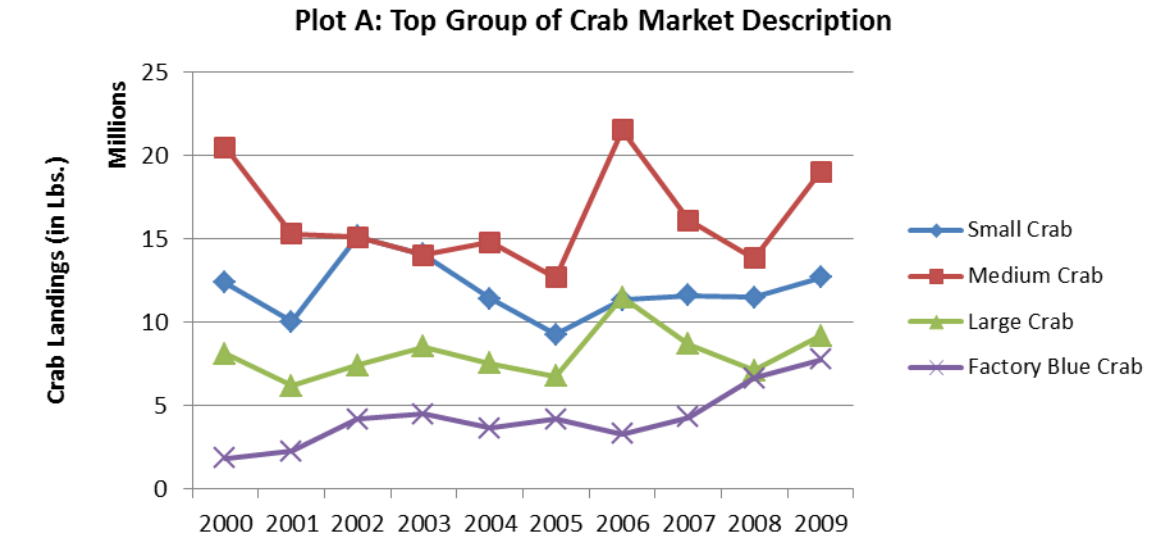
Plot D (Appendix Figure B.4) shows the dockside values in 2005 dollar (real value) of crabs caught from the federal grids from 2000 to 2009. The real dockside value of crabs from Grid 14 ranged from a low of $23 in 2009 to a high of $44,536 in 2004, while the real dockside value of crabs from Grid 15 was between $30 in 2005 and $14,702 in 2002. For Grid 13, crabs' real dockside values fluctuated between $0 in 2007 and $30,262 in 2006. The real dockside value of crabs from Grid 16 ranged from a low of $0 in both 2000 and 2004 to a high of $11,752 in 2002.

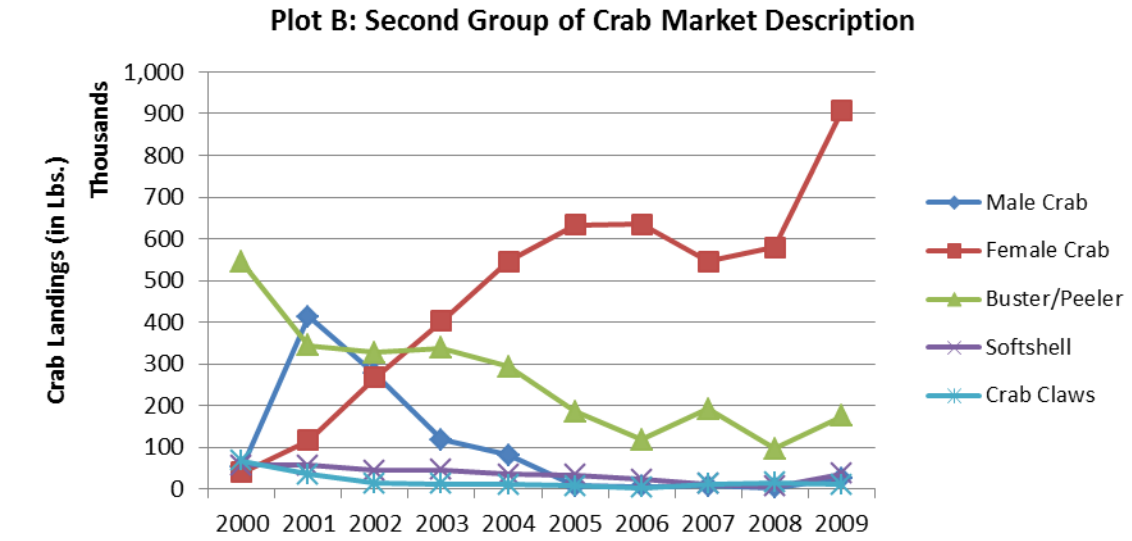
2.4 Landings, Dockside Prices and Values of Crabs by Market Description

At first point of sale (Louisiana docks) or in the trip ticket forms, crabs are categorized by market description such as size, gender, stage of development, etc. Hence, there are small-size crabs, medium-size crabs and large-size crabs; male and female crabs; buster/peeler and softshell crabs, as well as factory blue crabs and crab claws (stone crabs). The pounds of crabs reported under individual categories were converted to a whole weight during the analysis to facilitate reasonable comparisons. The unspecified category consists of crabs whose market descriptions were not reported on the trip ticket forms.

Figure 2.10 shows the volumes of crab landed at Louisiana docks in the 2000-2009 period by market description. On average, approximately 88.0 percent (41.5 million pounds) of crabs landed contains a market description in the trip tickets. Of this volume, Plot A shows that crabs reported by market-size category accounted for an average of 87.6 percent (36.3 million pounds). Following the market-size category were factory blue crabs accounting for about 10.3 percent (4.3 million pounds) and gender category with 1.4 percent (0.6 million pounds). Other categories, excluding unspecified description, accounted for the remaining portion (0.3 million) of crab landings.

Within the market-size category, medium-size crabs ranked first with an average of 16.3 million pounds landed in the 2000-2009 period, followed by small-size crabs and large-size crabs with average landings of 12.0 million and 8.1 million pounds, respectively. With regard to crabs whose gender was designated at landing at the Louisiana docks, female crabs, on average, dominated the male counterpart by ratio 5:1. Among the remaining categories, buster or peeler crabs constituted the largest portion, averaging 261,552 pounds, followed by softshell crabs, with an average landing of 35,523 pounds and crab claws, with an average landing of 19,190 pounds.





Source: Appendix Table B.15.

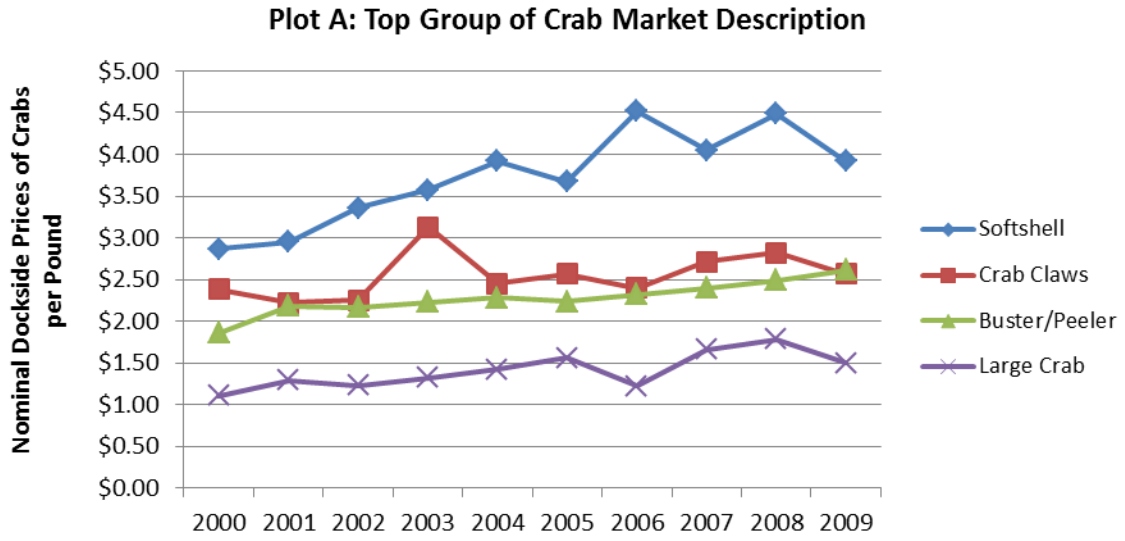
Figure 2.10 Crab Landings by Market Description, 2000 – 2009

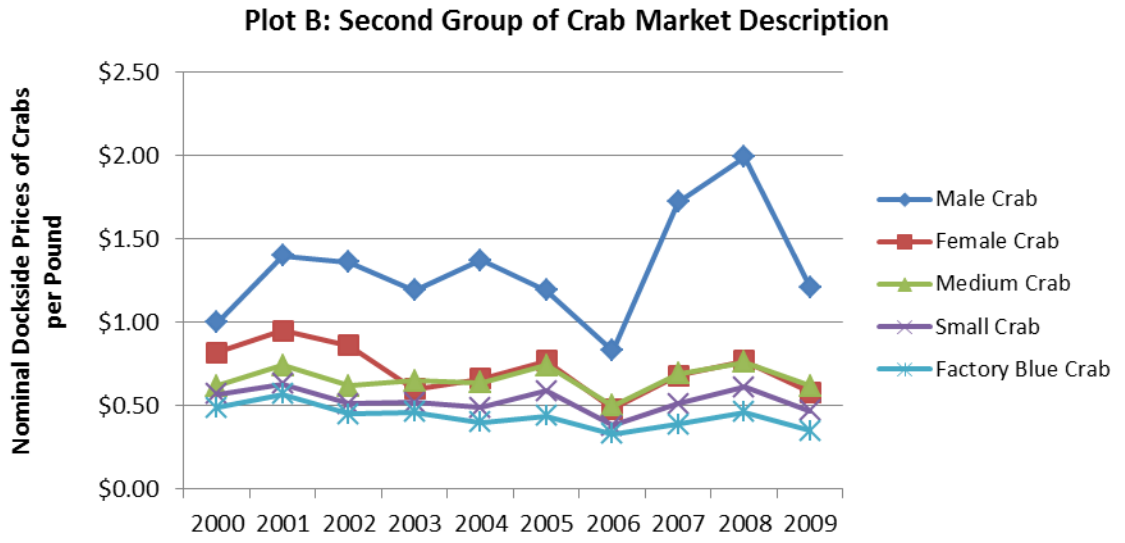
Interestingly, only the volume of female crabs landed has shown a tremendous growth from below 40 thousand pounds in 2000 to over 900 thousand pounds in 2009 (Plot B).

Figure 2.11 (Plots A and B) presents the average nominal (actual) dockside price fishermen received by category of crab market description from 2000 through 2009. Crab categories with the lowest landings commanded the highest prices. For example, a pound of softshell crabs sold for an average of $3.73 to place it at the top of all crab categories. Next were crab claws (stone crabs), with an average actual price of $2.55 per pound, followed by buster or peeler crabs selling for an average of $2.28 per pound. These prices were very high compared to the average total price of $0.96 per pound for all crab categories.

When crabs were compared within size category, large crabs sold for the highest actual price, averaging $1.41 per pound in the period between 2000 and 2009. With an average actual price of $0.66 per pound, medium-size crabs valued less than half of the large-size crabs. Lesser still was the average price per pound of small-size crabs ($0.53). Gender-wise, male crabs, with an average nominal price of $1.33 per pound, sold for almost double of the female crab, which averaged $0.72 per pound for the 2000-2009 period. Factory blue crabs rated the least in terms of the average nominal price. The average nominal price of factory blue crabs from 2000 to 2009 was $0.43 per pound.

Generally, the average prices of crabs in 2005 dollar (average real prices), especially the low-priced categories of crabs like female, medium-size, small-size and factory blue crabs, appeared to be falling over the years (Appendix Figure B.5). Except for softshell crabs which rose from $3.22 per pound in 2000 to $4.39 in 2006, the high-priced crab categories have remained relatively stable. The average real price per pound of male crabs was the most erratic among the crab categories, fluctuating between $0.80 in 2006 and $1.83 in 2008.





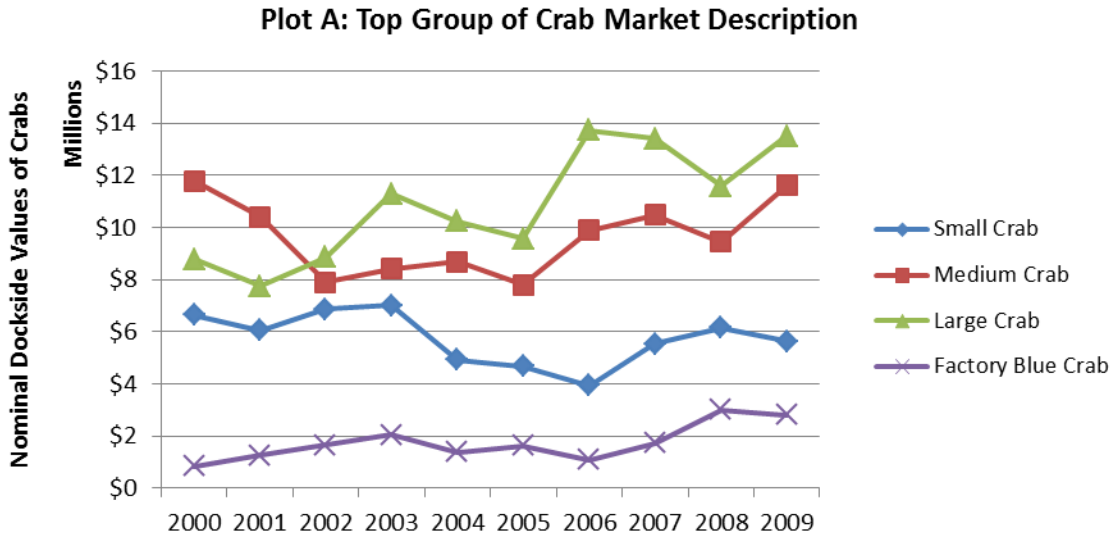
Source: Appendix Table B.16. See Appendix Figure B.5 for the average real dockside prices of crabs by market description.

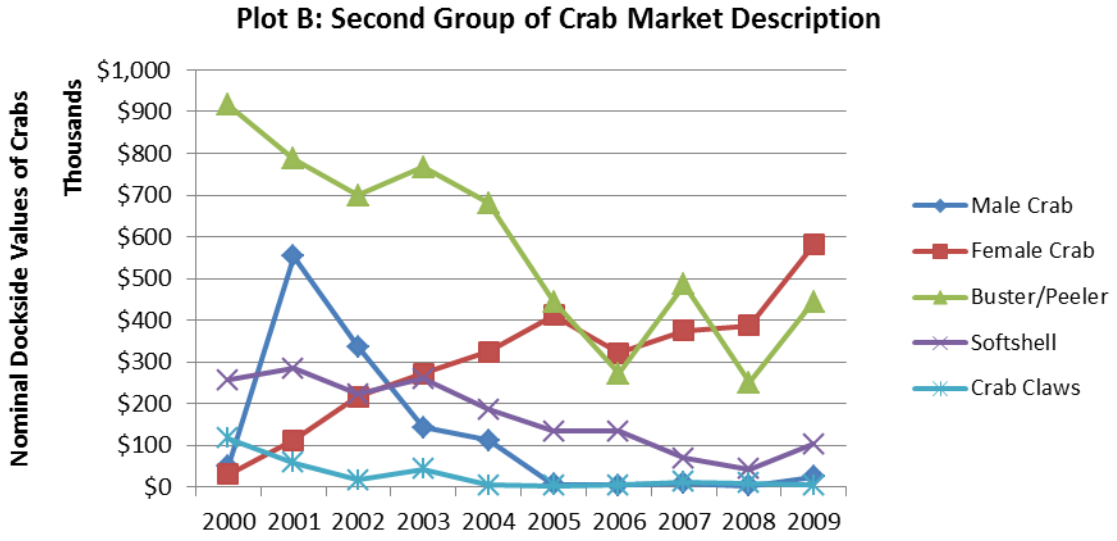
Figure 2.11 Average Nominal Dockside Prices of Crabs by Market Description, 2000 – 2009

Figure 2.12 (Plots A and B) shows the nominal (actual) values of crabs landed at Louisiana docks by market description between 2000 and 2009. Of the 89.0 percent of crabs ($29.5 million worth) whose market description was provided in the trip tickets, crabs described by size category accounted for the largest portion (90.0 percent or $26.5 million) of the total nominal value for the period. Within this category, large crabs contributed an average nominal value of $10.9 million, medium-size crabs accounted for $9.8 million, while small-size crabs accounted for $5.9 million.

Additionally, factory blue crab category contributed an average nominal value of $1.7 million in the 2000-2009 period. Next to factory blue crabs was buster or peeler whose nominal value averaged $0.6 million and female crab category, with an average nominal value of $0.3 million. Other categories accounted for the remaining $0.3 million worth of crabs.

Appendix Figure B.6 shows the trends in the dockside values of crabs in 2005 dollar (real dockside values) by market description from 2000 to 2009. Real dockside values of crabs were relatively less erratic but high for the entire 2000-2009 period for large-size, medium-size, small-size and factory blue crabs. The real dockside values for male crabs, buster or peeler carbs, softshell crabs and crab claws have experience a consistent decline from 2000 to 2009. The largest decline among these categories occurred for buster or peeler crabs from $1.0 million in 2000 to $0.2 million in 2008. Only the female crab category has seen an increase in its real dockside value from $34,509 in 2000 to approximately $0.5 million in 2009.





Source: Appendix Table B.18. See Appendix Figure B.6 for the real dockside values of crabs by market description.

Figure 2.12 Nominal Dockside Values of Crabs by Market Description, 2000 – 2009

2.5 Landings, Dockside Prices and Values of Crab by Landing Condition

This section describes crab landings and dockside values by conditions in which crabs were landed at the Louisiana docks from 2000 to 2009. Depending on the seafood type, landing condition is generally described as whole (round or heads on), gutted, headed (or heads off), tailed, pieces (or chunks), live or dead bait as well as a combination of two or more landing conditions. The volume, average nominal dockside price and nominal dockside value of crab by the condition in which they were landed at the Louisiana docks between 2000 and 2009 are shown in Table 2.1.

The top portion of Table 2.1 shows the pounds of crabs landed at the Louisiana docks by landing condition between the period 2000 and 2009. The majority of the crabs, averaging 47.1 million pounds (over 99.9 percent) per year were landed whole weight in the 2000-2009 period. As shown in the middle portion of Table 2.1, the average nominal dockside price of crabs landed in pieces or chunks surpassed all other conditions. The dockside prices per pound, in order of magnitude, averaged $2.78 for crabs landed in pieces or chunks, $1.02 for gutted and headed crabs and $0.96 for whole weight crabs. The bottom part of Table 2.1 shows the nominal dockside values of crabs landed at the Louisiana docks by the condition in which they were landed in the period between 2000 and 2009. The annual nominal dockside value for whole weight crabs averaged over 99.9 percent ($33.2 million) of the values across all conditions.

2.6 Landing and Dockside Values of Crabs by Landing Unit

This section describes crab landings and values by the units in which crabs were landed at the Louisiana docks from 2000 to 2009. Depending on the seafood type, landing unit can be in pounds, sacks, barrels, bushels, dozens, individuals (or by the head), tons or thousands of

Table 2.1 Landings, Average Nominal Dockside Prices and Dockside Values of Crabs by Landing Condition, 2000 – 2009

Landing Condition	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Average
	Landings of Crabs (in Pounds)										
Peeled or Meat	4,350	8,250	0	14	2,004	0	0	0	66	0	2,937
Gutted & Headed	22,508	14,491	14,132	12,793	19,733	4,580	720	7,076	7,913	2,550	10,650
Pieces or Chunks	796	2,355	234	2,670	235	16	0	1,033	676	724	971
Whole or Round	52,070,792	41,800,875	50,117,787	48,086,465	44,391,020	38,112,149	53,469,374	45,970,065	44,322,539	52,985,197	47,132,626
All Conditions	**52,098,446**	**41,825,970**	**50,132,153**	**48,101,941**	**44,412,992**	**38,116,745**	**53,470,094**	**45,978,174**	**44,331,193**	**52,988,471**	**47,145,618**
	Average Nominal Dockside Prices of Crabs per Pound (in $)										
Peeled or Meat	0.17	0.17	-	8.50	0.21	-	-	-	2.00	-	2.21
Gutted & Headed	0.97	0.87	0.99	1.02	1.00	1.13	0.83	1.30	1.17	0.94	1.02
Pieces or Chunks	2.11	1.83	0.96	3.73	4.14	3.00	-	2.47	3.79	2.97	2.78
Whole or Round	0.92	1.04	0.92	0.93	0.94	1.02	0.80	1.01	1.07	0.91	0.96
All Conditions	**0.92**	**1.04**	**0.92**	**0.93**	**0.94**	**1.02**	**0.80**	**1.01**	**1.07**	**0.91**	**0.96**
	Nominal Dockside Values of Crabs (in $)										
Peeled or Meat	725	1,375	0	115	418	0	0	0	132	0	553
Gutted & Headed	22,680	13,844	11,950	13,155	19,136	5,091	354	9,293	9,386	2,509	10,740
Pieces or Chunks	1,679	4,123	181	9,063	1,077	48	0	2,365	2,749	2,016	2,589
Whole or Round	34,549,834	32,052,858	30,689,955	33,646,779	29,685,398	27,400,053	32,326,804	35,584,416	34,355,955	37,219,939	32,751,199
All Conditions	**34,574,917**	**32,072,199**	**30,702,086**	**33,669,112**	**29,706,028**	**27,405,193**	**32,327,157**	**35,596,074**	**34,368,222**	**37,224,463**	**32,764,545**

Note: See Appendix Table B.20 for the average real dockside prices and real dockside values of crabs by landing condition.

standard fish (used for menhaden). The pounds, nominal dockside value and real dockside value (in 2005 dollar) of crab landed at the Louisiana docks by landing unit in the period between 2000 and 2009 are shown in Table 2.2. Approximately 99.1 percent (46.7 million pounds) of annual volume of crabs landed in Louisiana was measured in pounds. Also, about 97.4 percent ($31.9 million) of crab values can be attributed to landings, which were measured in pounds.

Table 2.2 Landings and Dockside Values of Crabs by Landing Unit

Landing Unit	Landings of Crabs (in Pounds)										
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Average
Bushels	113,200	32,050	53,075	18,775	30,825	15,550	166,315	21,560	15,950	67,200	53,450
Dozens	124,919	75,081	71,500	75,521	78,997	82,502	217,596	72,613	61,011	140,617	100,036
Individuals or by the Head	567,238	360,287	332,555	356,232	300,593	210,680	133,573	200,607	99,952	171,592	273,331
Pounds	51,293,089	41,358,553	49,675,023	47,651,414	44,002,577	37,808,013	52,952,610	45,683,395	44,154,281	52,609,063	46,718,802
All Units	**52,098,446**	**41,825,970**	**50,132,153**	**48,101,941**	**44,412,992**	**38,116,745**	**53,470,094**	**45,978,174**	**44,331,193**	**52,988,471**	**47,145,618**
	Nominal Dockside Values of Crabs (in Dollar)										
Bushels	43,494	1,786	12,785	13,145	20,364	11,613	77,115	17,063	13,121	32,940	24,343
Dozens	255,608	263,390	189,190	220,718	218,142	141,770	334,104	109,233	102,388	203,560	203,810
Individuals or by the Head	992,859	859,860	777,279	880,508	715,675	519,033	348,464	528,199	268,602	463,343	635,382
Pounds	33,282,956	30,947,163	29,722,831	32,554,741	28,751,847	26,732,777	31,567,475	34,941,579	33,984,112	36,524,620	31,901,010
All Units	**34,574,917**	**32,072,199**	**30,702,086**	**33,669,112**	**29,706,028**	**27,405,193**	**32,327,157**	**35,596,074**	**34,368,222**	**37,224,463**	**32,764,545**
	Real Dockside Values of Crabs (in Dollar)										
Bushels	48,869	1,963	13,897	13,984	20,994	11,613	74,869	16,097	12,038	29,945	24,427
Dozens	287,200	289,439	205,641	234,806	224,889	141,770	324,373	103,050	93,934	185,054	209,016
Individuals or by the Head	1,115,572	944,902	844,869	936,710	737,809	519,033	338,314	498,301	246,424	421,221	660,316
Pounds	37,396,580	34,007,872	32,307,425	34,632,704	29,641,080	26,732,777	30,648,034	32,963,753	31,178,084	33,204,200	32,271,251
All Units	**38,848,221**	**35,244,175**	**33,371,832**	**35,818,204**	**30,624,772**	**27,405,193**	**31,385,590**	**33,581,202**	**31,530,479**	**33,840,421**	**33,165,009**

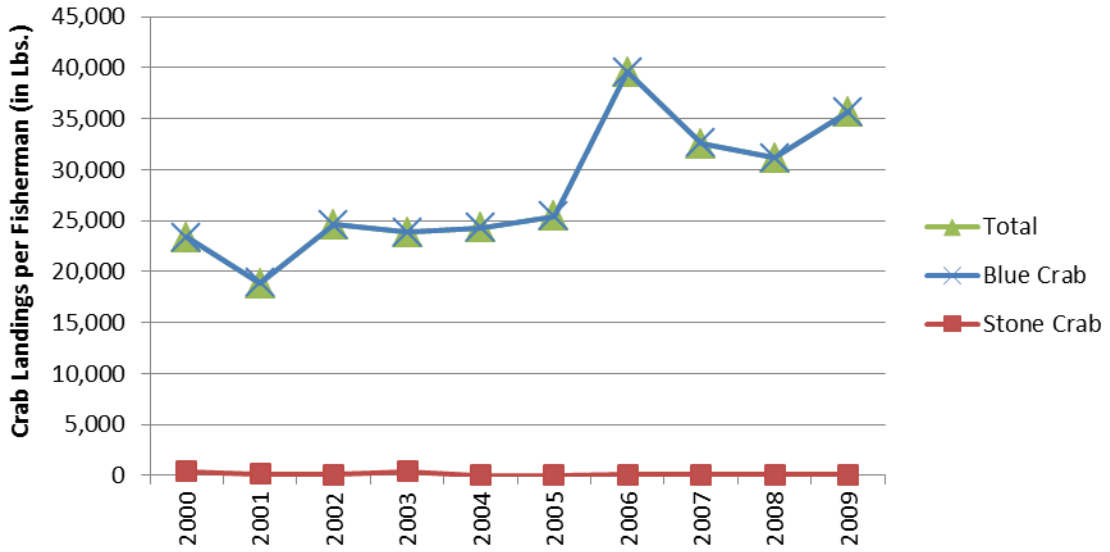
Chapter 3 - Crab Landings and Dockside Values per Effort

This chapter presents information on crab landings at Louisiana docks and dockside values per unit of effort from 2000 through 2009. The measures of efforts considered are the number of fishermen, number and hours of fishing trips as well as the number of fishing vessels. Dockside values of crab were presented both in nominal (actual) and real terms. The real values of crabs were derived by expressing the nominal values in 2005 dollar using the GDP deflator.

3.1 Landings and Dockside Values of Crabs per Fisherman

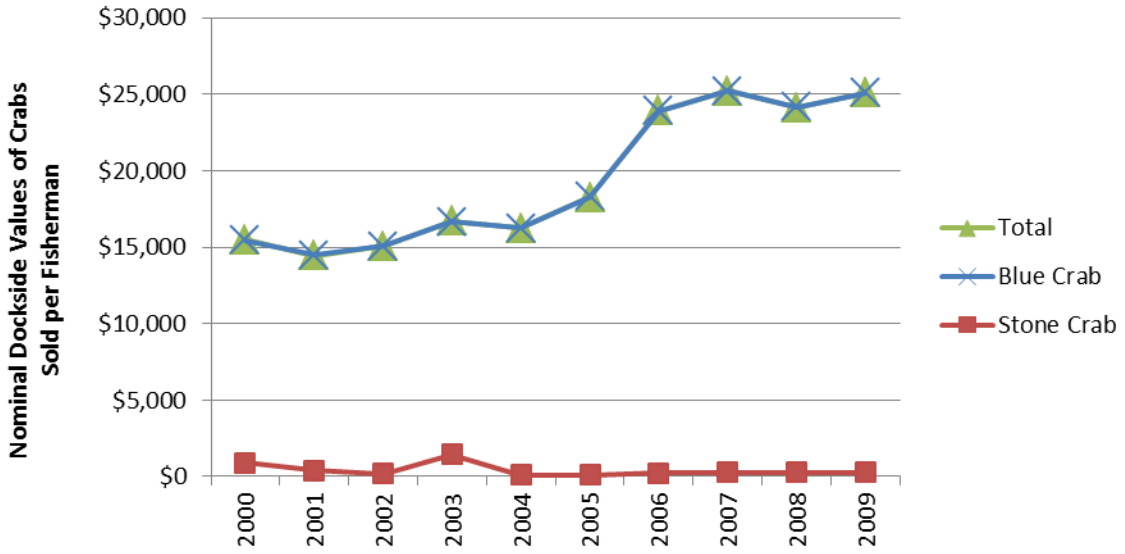
Figure 3.1 presents the average crab landings per fisherman during the 2000-2009 period. The total volume of crabs showed an upward trend, ranging from 18,849 pounds in 2001 to 39,549 pounds in 2006. Similarly, the pounds of blue crabs landed per fishermen increased from its low of 18,880 pounds in 2001 to reach its high of 39,548 pounds in 2006. The pounds of stone crabs landed per fisherman fluctuated between 38 pounds in 2005 and 409 pounds in 2003. On average, 27,939 pounds of blue crabs were landed per fisherman, while 156 pounds of stone crabs (whole weight) were landed per fisherman from 2000 to 2009. For the same period, a total of 27,930 pounds of crabs were landed per fisherman regardless of the species.

Figure 3.2 shows the average nominal dockside value of crabs sold per fisherman from 2000 through 2009. The average total nominal dockside value of crabs sold per fisherman rose consistently from its smallest in 2001 ($14,453) to its largest in 2007 ($25,210). For blue crabs dockside values ranged from an average of $14,460 per fisherman in 2001 to $25,219 in 2007. The nominal dockside values of stone crabs per fisherman fluctuated between a low of $105 in 2005 and a high of $1,437 in 2003. On average, the nominal dockside values in the 2000-2009 period were $19,456 for all crabs combined, $19,454 for blue crabs and $420 for stone crabs.



Source: Appendix Table C.1.

Figure 3.1 Average Crab Landings per Fisherman by Species, 2000 – 2009



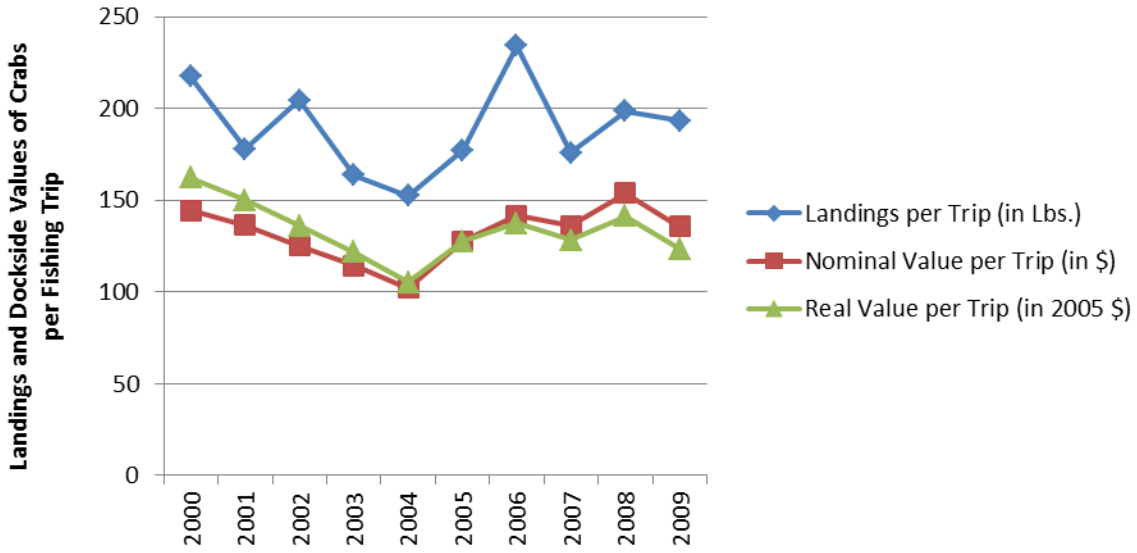
Source: Appendix Table C.2. See Appendix Figure C.1 for the average real dockside values of crabs per fisherman.

Figure 3.2 Average Nominal Dockside Values of Crabs Sold per Fisherman by Species, 2000 – 2009

3.2 Landings and Dockside Values of Crabs per Fishing Trip

The average volume (in pounds) of crabs landed per fishing trip, average nominal dockside values per trip and average real dockside values (in 2005 dollar) per trip in the period between 2000 and 2009 are shown in Figure 3.3. The average pounds of crabs landed per fishing trip increased fluctuated between 153 pounds in 2004 to 234 pounds in 2006.

The nominal dockside values of crabs landed in Louisiana per fishing trip declined consistently from $144 in 2000 to an all-time low of $102 in 2004. This trend reversely picked up after 2004, reaching a high of $154 in 2008. Likewise, the real dockside values of crabs per trip fell from an all-time high of $162 in 2000 to a low of $105 in 2004. The trend rose thereafter to a pick at $141 in 2000. On average, approximately 190 pounds ($132 worth) of crabs were landed in Louisiana per fishing trip from 2000 through 2009.



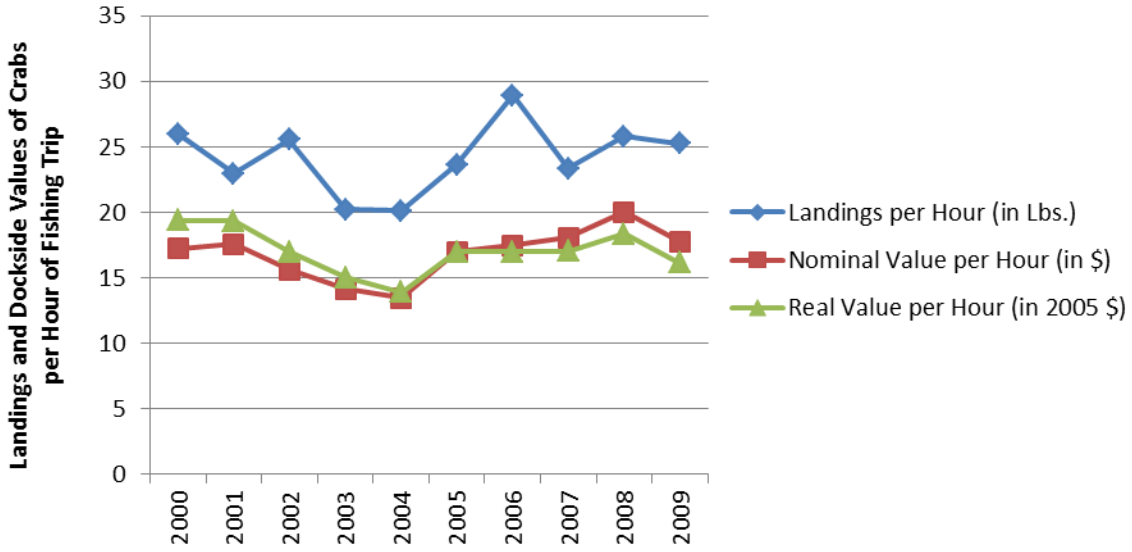
Source: Appendix Table C.4.

Figure 3.3 Average Landings and Dockside Values of Crabs per Fishing Trip, 2000 – 2009

3.3 Landings and Dockside Values of Crabs per Length of Fishing Trip

The landings and dockside values of crabs landed by length (or hours) of fishing trips from 2000 through 2009 are shown in Figure 3.4. These measures follow similar trends when compared to Section 3.2. Specifically, the average amount of crabs a fisherman landed per hour ranged from a low of 20 pounds in 2003 and 2004 to a high of 29 pounds in 2006, averaging 24 pounds during the 2000-2009 period.

The average nominal dockside values of crabs landed per hour of fishing trip ranged from $13 in 2004 to $20 in 2008, averaging $17 per hour during the 2000-2009 period. Also, the average real values of crab landed per hour of fishing trip fluctuated between $14 in 2004 and $19 in 2000 and 2001, averaging $17.

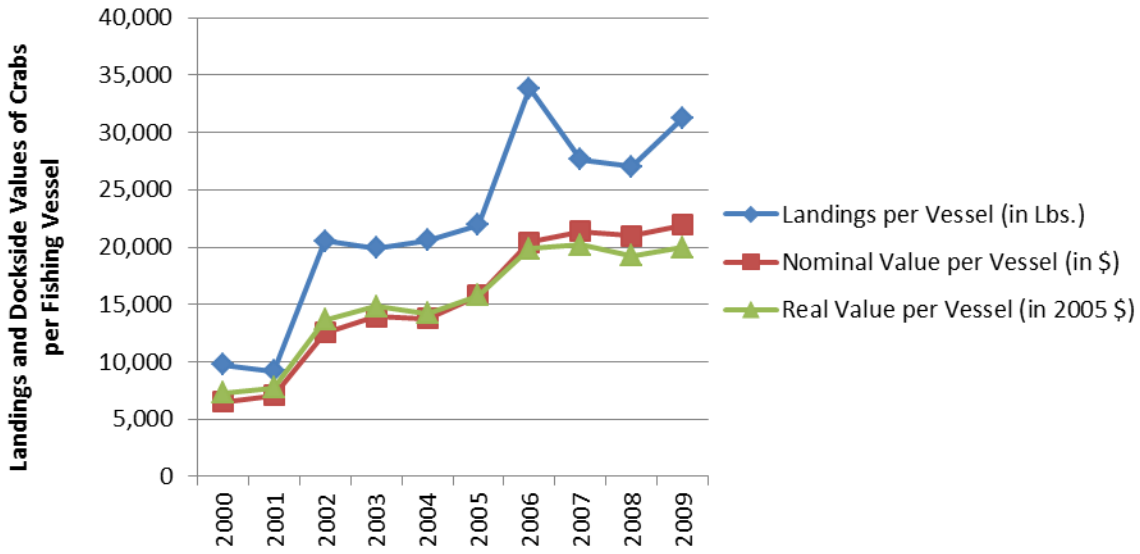


Source: Appendix Table C.5.

Figure 3.4 Average Landings and Dockside Values of Crabs per Hour of Trip, 2000 – 2009

3.4 Landings and Dockside Values of Crabs per Fishing Vessel

Figure 3.5 shows the average landings, the average nominal dockside values and the average real dockside values of crab landed per fishing vessel as reported on the trip tickets during 2000-2009 period. Interestingly, the average amount of crabs landed per fishing vessel increased sharply from a low of 9,209 pounds in 2001 to a high of 33,820 pounds in 2006. For the average nominal values of crabs landed per vessel, it consistently increased from $6,482 in 2000 to $21,961 in 2009. Likewise, the dockside values in 2005 dollar (real value) of crabs landed per vessel rose from $7,283 in 2000 to $20,181 in 2007.

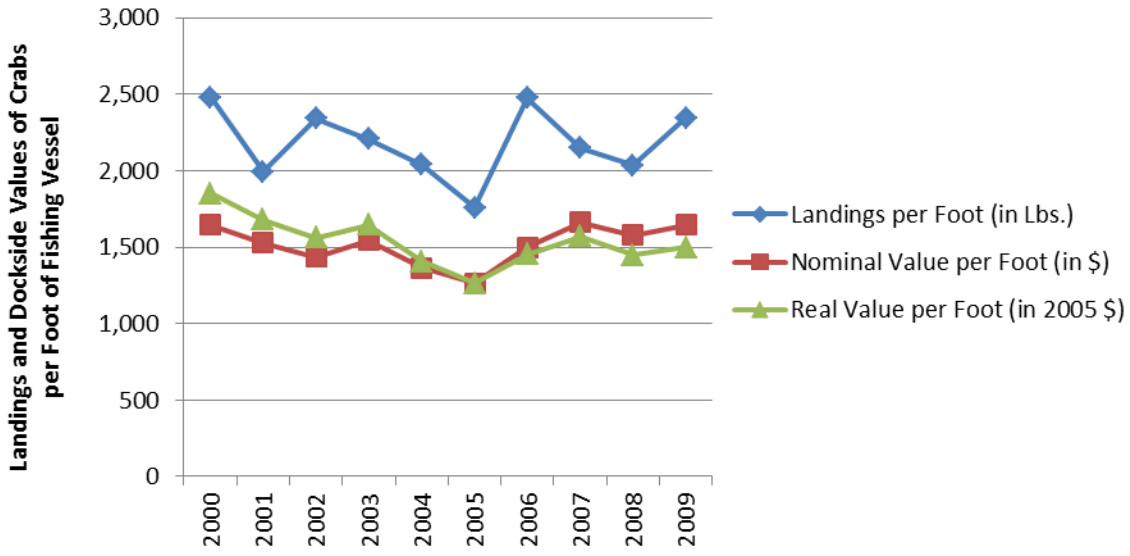


Source: Appendix Table C.6.

Figure 3.5 Average Landings and Dockside Values of Crabs per Fishing Vessel, 2000 – 2009

3.5 Landings and Dockside Values of Crabs per Length of Fishing Vessel

The average landings, the average nominal dockside values and the average real dockside values of crabs landed per foot of fishing vessel as reported on the trip tickets from 2000 through 2009 are shown in Figure 3.6. The average amount of crabs landed per foot of fishing vessel ranged from 1,757 pounds in 2005 to 2,481 pounds in 2000, averaging 2,182 pounds for the 2000-2009 period. The average nominal dockside value of crabs landed per foot of vessel fluctuated between a low of $1,263 in 2005 and a high of $1,663 in 2007. Similarly, the average real dockside value of crabs landed per foot of vessel ranged from $1,263 in 2005 to $1,850 in 2000.



Source: Appendix Table C.7.

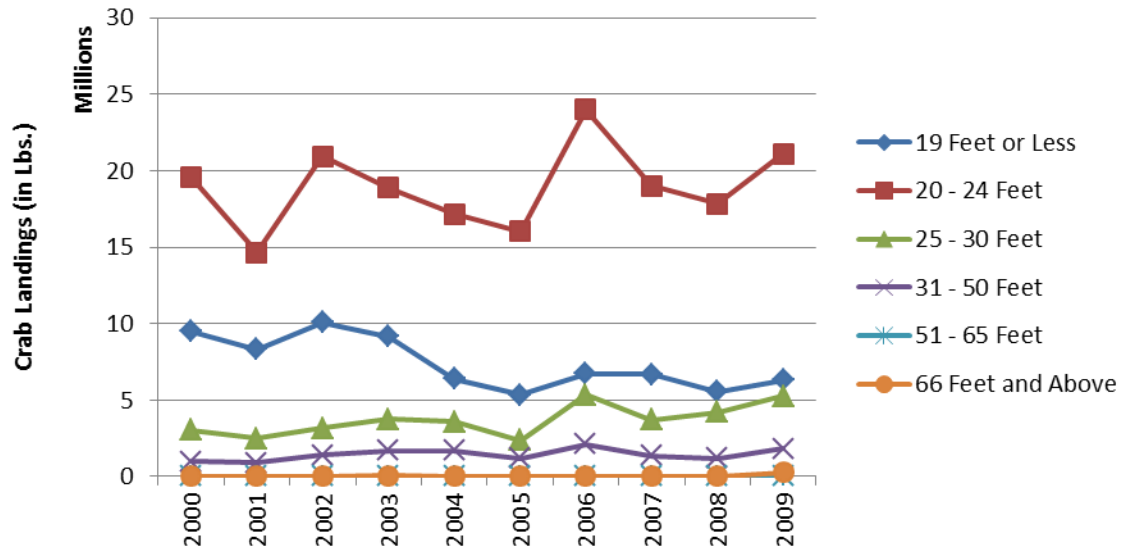
Figure 3.6 Average Landings and Dockside Values of Crabs per Foot of Vessel, 2000 – 2009

3.6 Landings and Dockside Values of Crabs per Fishing Vessel Length Category

As indicated in section 1.3.4, length (in feet) was provided on the trip tickets for less than one-third of the vessel that landed crabs from 2000 through 2009. These vessels were grouped into six categories: “19 feet or less," “20-24 feet,” “25-30 feet”, “31-50 feet”, “51-65 feet” and “66 feet or over.” The pounds and the nominal dockside values of crabs landed in Louisiana between 2000 and 2009 by vessel size category are shown in Figures 3.7 and 3.8, respectively.

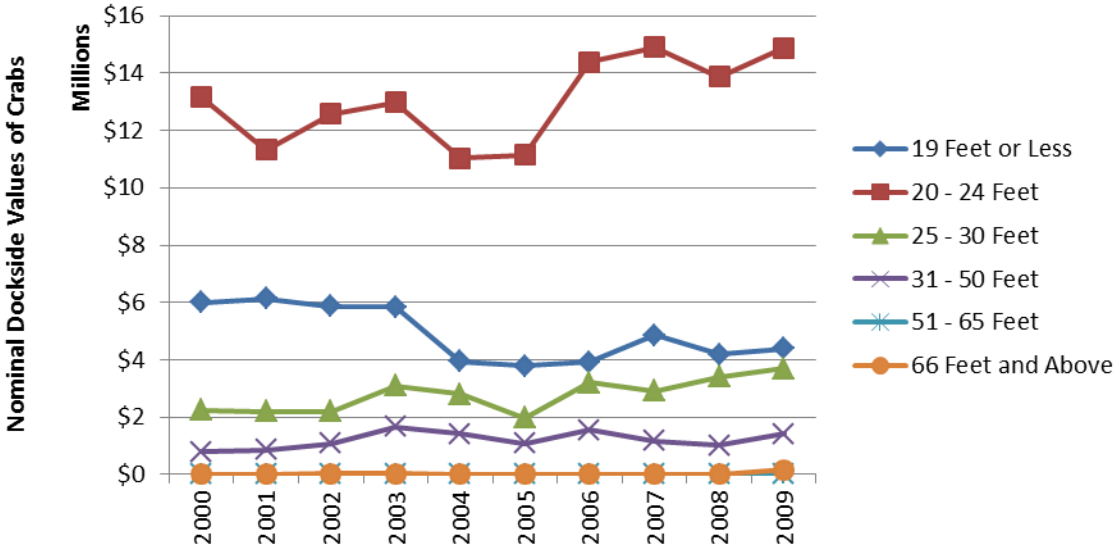
Figure 3.7 shows that majority of the fishing boats that landed crabs in Louisiana from 2000 to 2009 were 24 feet long or less. Precisely, vessels between 20 to 24 feet landed the largest pounds of crabs, ranging between 14.7 million in 2001 to 24.0 million in 2006 and averaging 18.9 million annually. At a distant second were vessels 19 feet or less, which harvested between a low of 5.3 million pounds of crabs in 2005 and a high of 10.1 million pounds in 2002, averaging 7.4 million per year. The pounds of crabs reportedly landed by vessels between 25 and 30 feet fluctuated between 2.4 million in 2005 and 5.3 million in 2006, with an average of 3.7 million pounds per year. Vessels, which are 31 to 50 feet long, harvested an average of 1.4 million pounds of crabs in the period between 2000 and 2009, while vessels over 50 feet long harvested less than 55,000 pounds per year.

Similar to the plots in Figure 3.7, Figure 3.8 shows that fishing vessels of lengths 20 to 24 feet clearly led other categories in terms of contributions to crab values (nominal), with an amount ranging from $11.0 million in 2004 to $14.9 million in 2007. Following this category were vessels of lengths 19 feet or less, which landed crabs whose nominal values ranged from $3.8 million in 2005 to $6.1 million in 2001. Next were vessels with lengths between 25 to 30 feet which contributed a nominal value of between $2.0 million in 2005 and $3.7 million in



Source: Appendix Table C.8.

Figure 3.7 Crab Landings by Fishing Vessel Length Category, 2000 – 2009



Source: Appendix Table C.9. See Appendix Figure C.2 for the real dockside values of crabs by vessel length category.

Figure 3.8 Nominal Dockside Values of Crabs by Fishing Vessel Length Category, 2000 – 2009

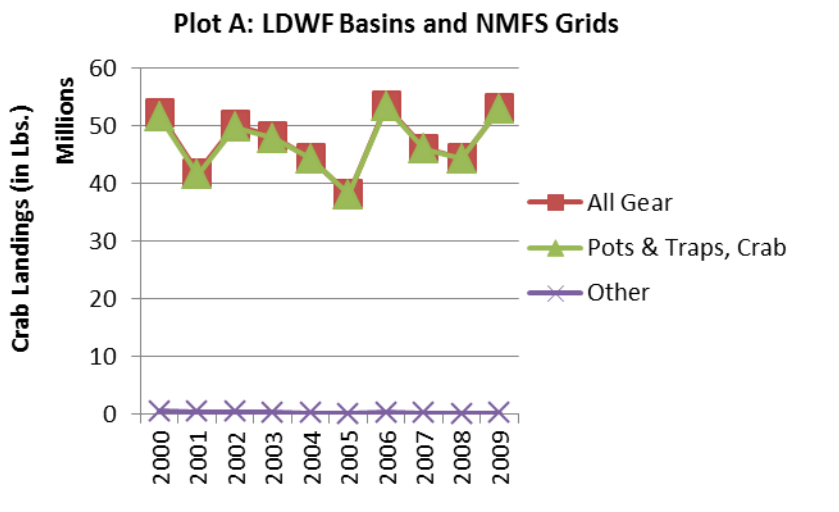
2009. On average, the nominal values of crabs harvested per year during the 2000-2009 period were $13.0 million for vessels of length 20 to 24 feet, $4.9 million for vessels of length 19 feet or less, $2.8 million for vessels of length 25 to 30 feet and $1.2 million for vessels whose lengths falls in the 31 to 50 feet category. Other vessel length categories contributed less than $40,000 worth of crabs per year.

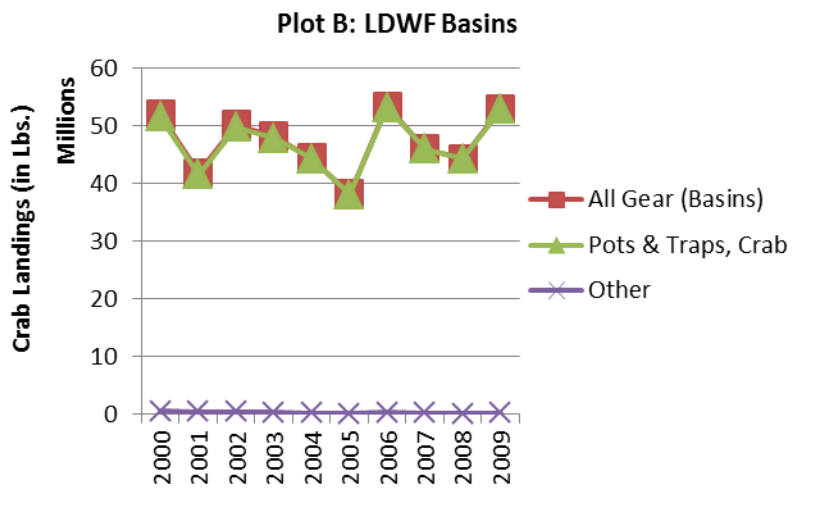
3.7 Landings and Dockside Values of Crabs by Fishing Gear

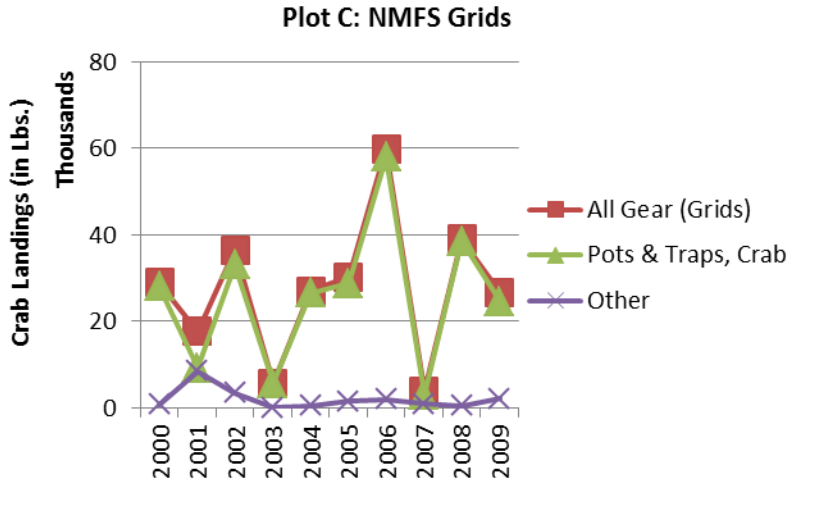
The landings and the dockside values of crabs harvested throughout the 2000-2009 period were examined by the gear, which fishermen reportedly used to harvest them. It is interesting to note that vast majority of crab landings and associated dockside values cab be attributed to crab pots and traps.

Figure 3.9 (Plots A to C) shows the amount of crab harvested by gear and the gear type, which were common to the Louisiana basins and the federal grids. On average, Plot A shows that approximately 99.5 percent (46.9 million pounds) of the all crabs reportedly landed annually in Louisiana were harvested with crab pots and traps. Likewise, an average of 99.5 percent (a little less than 46.9 million pounds) all crabs harvested from the trip ticket basins (Plot B) and 92.7 percent (25,555 pounds) all crabs harvested from the federal grids (Plot C) were attributed to crab pots and traps.

Figure 3.10 (Plots A to C) shows the nominal dockside values of crabs landed in Louisiana by gear and fishing areas during the period between 2000 and 2009. Plot A shows that crab pots and traps accounted for an average of 99.6 percent (over $32.6 million) of the nominal value of crabs landed in Louisiana per year. In addition, an average of 99.6 percent (approximately $32.6 million) of the nominal value of crabs harvested from the trip ticket basins







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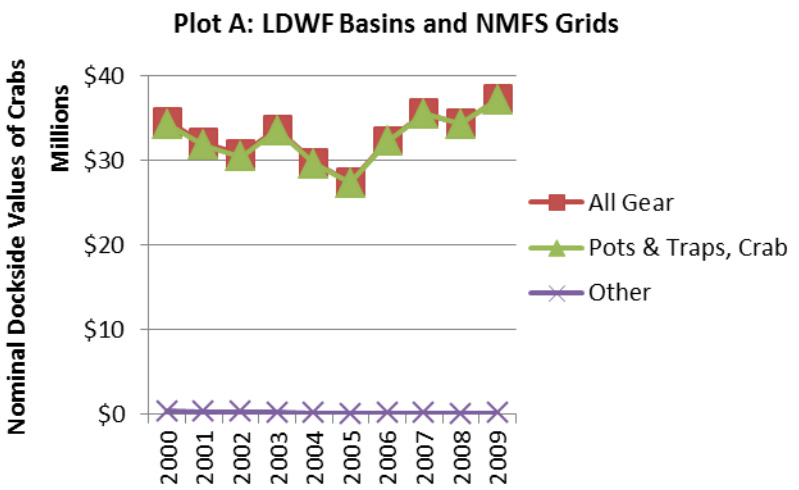
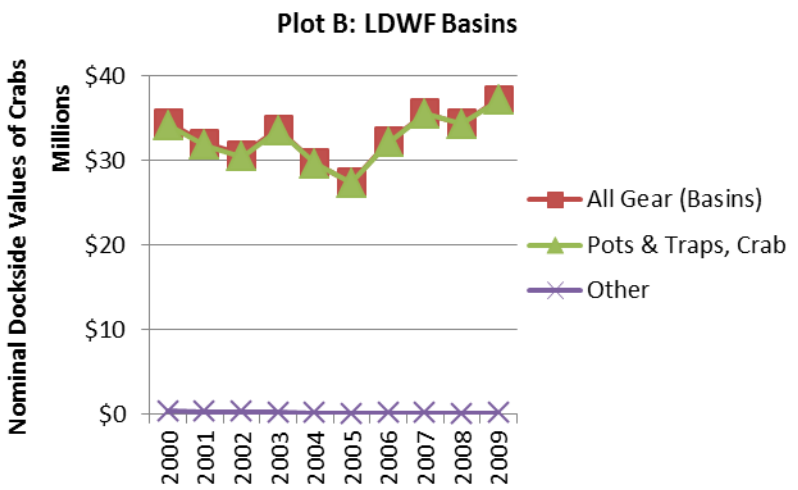
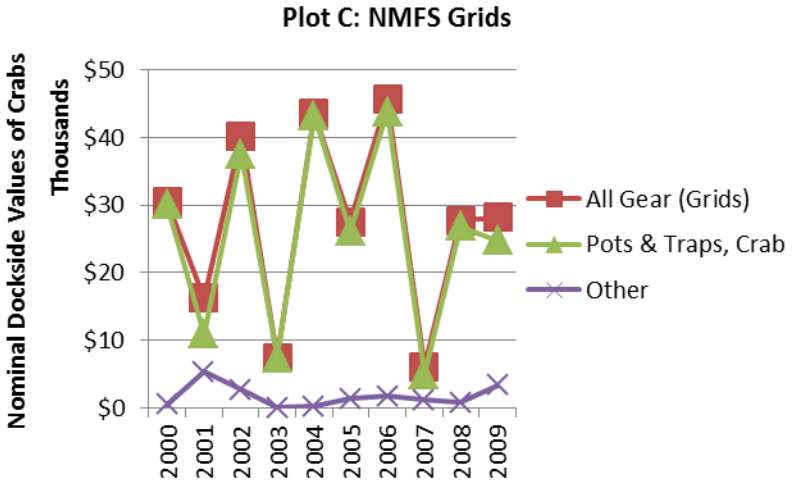
Source: Appendix Tables C.11, C.12 and C.13. "Other" includes all other fishing gear.

Figure 3.9 Crab Landings from LDWF Basins and NMFS Grids by Gear Type, 2000 – 2009







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Source: Appendix Tables C.14, C.15 and C.16. See Appendix Figure C.3 for real dockside values of crabs from basins/grids by gear type. "Other" includes all other fishing gear.

Figure 3.10 Nominal Dockside Values of Crabs from LDWF Basins and NMFS Grids by Gear Type, 2000 – 2009

per year was attributed to crab pots and traps. Likewise, crab pots and traps were responsible for a lesser average of 93.7 percent ($25,583) of the nominal value of crabs harvested from the federal grids every year.

Chapter 4 - Hurricanes Impacts and Recovery in Crab Fishery

Examination of the information presented in Chapters 1 to 3 revealed major changes in crab fishery indicators for 2001, 2005, 2006 and 2008. The changes, which occurred in 2001, can be attributed to the limited familiarity with the relatively new trip ticket program and changing regulations on fishing efforts to improve fishery management. The period between 2005 and 2008 coincided with major hurricane occurrences such Katrina and Rita of 2005 and Gustav and Ike of 2008, which have impacted the crab fishery in Louisiana (See Appendix Figures D.3 to D.6). Hence, Chapter 4 discusses the impacts of these hurricanes on participation and activities for the fishermen side of the crab fishery as well as their impacts on performance indicators including crab landings, average dockside prices and dockside values. The chapter also attempts to assess the recovery of the crab fishery in the aftermath of these hurricanes.

The chapter is divided into four sections. Section 4.1 discusses the hurricanes impacts on participation and activities in the crab fishery by crab fishing trip and by parish of residence of fishermen as well as fishing vessel owners. Similar discussions on performance indicators are contained in Section 4.2. Section 4.3 considers the impacts of hurricanes on performance indicators per fisherman, while Section 4.4 briefly examines the recovery of crab fishery in the aftermath of the hurricanes.

4.1 Hurricanes Impacts on Participation and Activities

Based on the descriptions in Chapter 1 (sections 1.1 to 1.4), this section presents the changes in relevant indicators of fishing efforts in the crab fishery as a result of hurricanes Katrina and Rita in 2005 and Gustav and Ike in 2008. These changes become apparent considering the interruptions in the trend of participation indicators during the hurricane years

such as the number of fishermen (Figures 1.1 and 1.5), number of dealers (Figure 1.2), number of fishing trips (Figures 1.6 and 1.7), number of fishing vessels (Figure 1.8), etc.

Between 2004 and 2005 (Katrina and Rita), the number of crab fishermen declined by 328 (17.9 percent) and the parishes with the largest decreases in the number of crab fishermen affected were Terrebonne (75 fishermen), Jefferson (42 fishermen) and St. Tammany (35 individuals). In addition, the total number of fishing trips, the average number of fishing trips per fisherman and the number of fishing vessels associated with crab landings decreased by 26.2 percent (76,162 trips), 10.0 percent (16 trip per fisherman) and by 19.4 percent (419 boats), respectively. The number of crab dealers also declined by 17.2 percent (75 individuals), while the average length (hours) of fishing trips per fisherman remained relatively unchanged by hurricanes Katrina and Rita.

The devastation to participation and activities in the crab fishery by Gustav and Ike was minimal compared to the Katrina or Rita. For example, Gustav and Ike in 2008 caused a 0.8 percent (12 fishermen) net increase in the number of individuals who reported landing of crabs in Louisiana compared to 2007. However, the reduction in participation of crab fishermen were noticed for St. Mary (20 individuals), Plaquemines (10 fishermen) and Iberia (9 persons) parishes.

Parishes such as St. Tammany and Vermilion experienced increases of 19 and 18 fishermen, respectively, while St. Bernard and Cameron equally experienced an increase of 13 fishermen after Gustav and Ike. Interestingly, the consistent increase in the number of fishermen and fishing vessels owners in Vermilion, Calcasieu and Livingston parishes since hurricanes Katrina and Rita might indicate the growing relocation of fishermen to these parishes or recovery in the aftermath of the hurricanes.

Additional measures of participation in the crab fishery, which experienced declines between 2007 and 2008 due to Gustav and Ike were the number of crab dealers (0.9 percent or 3 individuals), the number of fishing trips (14.7 percent or 38,373 trips), average number of fishing trips per fisherman (15.4 percent or 29 trips) and the number of crab fishing vessels (1.5 percent or 25 vessels). The average length of a fishing trip per fisherman was not affected by Gustav and Ike.

4.2 Hurricanes Impacts on Crab Landings, Dockside Prices and Values

This section discusses the impact of hurricanes Katrina and Rita in 2005 and Gustav and Ike in 2008 (See Appendix Figures D.3 to D.6) on the volume, average dockside prices (in 2005 dollar) and dockside values (in 2005 dollar) of crabs landed in Louisiana, which were presented in Chapter 2. Specifically, the impacts on these indicators by crab species, fisherman's parish of residence as well as LDWF basins and NMFS grids are emphasized.

4.2.1 Hurricanes Impacts by Crab Landings, Dockside Prices and Values by Species

As a result of hurricanes Katrina and Rita in 2005, crab landings decreased by a net of 6.3 million pounds (14.2 percent) from its 2004 level of 44.4 million pounds (Figure 2.1). The percentage decrease in crab landings from Gustav and Ike in 2008 was approximately 3.6 percent from 46.0 million in 2007. Blue crabs accounted for over 99.9 percent of the total declines in crab landings due to Katrina and Rita as well as Gustav and Ike. The volume of blue crabs landed in 2008 actually rose by about 0.4 million pounds compared to its level (65.9 million pounds) in 2007.

Conversely, average dockside prices of crabs (in 2005 dollar) were higher during the hurricane years than the immediate years (Figure 2.2, Plot B). Although Katrina and Rita had a

greater impact on crab landings than Gustav and Ike, the upward change in crabs' dockside price per pound was also greater during Katrina and Rita, perhaps because the local demand for crabs was higher. Precisely, the dockside average total price of crabs rose during Katrina and Rita year by $0.05 per pound from $0.97 in 2004 and by $0.03 per pound from $0.96 in 2007 as a result of Gustav and Ike. The average dockside price of blue crabs rose by $0.05 per pound during Katrina and Rita and by $0.02 per pound during Gustav and Ike. For stone crabs, the average dockside price rose by $0.32 per pound during Katrina and Rita and by $0.27 per pound during Gustav and Ike.

The effects of hurricanes occurrences on dockside values of crabs expressed in 2005 dollar (real dockside value) appeared to be similar when compared to their effects on the volume of landed crabs. From 2004 to 2005 (Katrina and Rita era), real dockside value of crabs fell by a net of $3.2 million (10.5 percent) from $30.6 million in 2004. Likewise, Gustav and Ike (2008) resulted in a 6.1 percent ($2.1 million) decrease in the real dockside value of crabs from $33.6 million in 2007. Over 99.9 percent of the declines in dockside values of crabs during both sets of hurricanes were attributed to the decline in the value of blue crabs and an insignificant portion attributed to the decline in the value of stone crabs.

4.2.2 Hurricanes Impacts by Fisherman's Parish of Residence

4.2.2.1 Changes in Crab Landings by Fisherman Parish of Residence

The changes in crab landings by fisherman parish of residence as a result of Katrina and Rita in 2005 and due to Gustav and Ike in 2008 can be derived from Figure 2.4. Based on the level of crab landings, St. Bernard, Plaquemines and Jefferson topped the list of parishes, which

suffered the largest declines due to Katrina and Rita, while Iberia, Lafourche and St. Mary topped the list of parishes, which experienced increases in the volume of crab landings.

Specifically, the fall in the crab landings in 2005 over 2004 was 2.7 million pounds (39.3 percent) for residents of St. Bernard parish, 955.2 thousand pounds (34.6 percent) for individuals in Plaquemines parish and 777.5 thousand pounds (23.5 percent) for residents of Jefferson parish. In the same period, the increase in the pounds of crab landings was 355.6 thousand (7.7 percent) for Iberia's residents, 298.7 thousand (5.3 percent) for Lafourche's residents and 221.6 thousand pounds (14.6 percent) for individuals leaving in St. Mary parish.

Figure 2.4 also shows the changes in the crab landings attributed to Gustav and Ike of 2008. It is interesting to note that Iberia parish which benefited most in Katrina and Rita in 2005 suffered the most in Gustav and Ike. Also, St. Bernard and Jefferson, which were among the top three parishes that suffered most in Katrina and Rita were among the three parishes that benefited most in Gustav and Ike. Precisely, fishermen in Iberia, Plaquemines and Cameron parishes suffered with 768.9 thousand pounds (17.8 percent), 615.3 thousand pounds (30.9 percent) and 551.1 thousand pounds (26.3 percent) declines, respectively in crab landings in 2008 compared to 2007. In the same period, residents of St. Charles, Jefferson and St. Bernard benefited with increases of crab landings of 1.4 million pounds (42.2 percent), 338.8 thousand pounds (12.1 percent) and 164.5 thousand pounds (2.5 percent), respectively.

4.2.2.2 Changes in Dockside Values of Crabs by Fisherman Parish of Residence

The changes in crab dockside values expressed in 2005 dollar (real value) across parishes where fishermen resided can be observed through Appendix Figure B.1. As in the previous paragraphs, the changes were positive for some parishes and negative for others. The parish whose residents experienced the largest positive changes in real dockside values of crabs due to

Katrina and Rita was Lafourche, followed at a huge distance by St. Martin, Jefferson Davis, etc. Parishes whose residents mostly experienced negative changes in crabs' real dockside values were St. Bernard, St. Tammany, Tangipahoa, etc.

Specifically, compared to 2004, the dockside value of crabs increased in 2005 by $507.4 thousand (13.0 percent) for fishermen who lived in Lafourche, by $99.8 thousand (94.0 percent) for individual in St. Martin and by $52.5 thousand (289.3 percent) for Jefferson Davis' residents. Conversely, the dockside values of crabs declined by $804.6 thousand (20.0 percent) for fishermen who lived in St. Bernard, by $771.6 thousand (42.7 percent) for individual in St. Tammany and by $432.3 thousand (50.1 percent) for Tangipahoa residents.

Attributed to Gustav and Ike was the largest decline of approximately $563.3 thousand (16.5 percent) in crabs' dockside values from 2007 to 2008, which the fishermen in Iberia parish suffered. Next were Plaquemines and Cameron parishes, whose residents suffered decreases in real dockside values of crabs to the tune of $450.3 thousand (39.1 percent) and $334.9 thousand (22.3 percent), respectively. Gustav and Ike also benefited fishermen in parishes like St. Charles, Jefferson Davis, Calcasieu, etc. In 2008, residents in St. Charles received $856.0 thousand (34.5 percent) more in real dockside values of crabs compared to what they received in 2007. In Jefferson Davis and Calcasieu, resident fishermen experienced modest increases of $35.7 thousand (33.5 percent) and $31.8 thousand (4.0 percent) when compared to 2007.

4.2.3 Hurricanes Impacts by LDWF Basins and NMFS Grids

This section compares the volume, dockside prices and values of crabs harvested from the trip ticket basins and the federal grids between 2004 and 2005 as well as between 2007 and 2008. These comparisons would isolate the impacts of hurricanes Katrina and Rita in 2005 and hurricanes Gustav and Ike in 2008.

4.2.3.1 Changes in Crab Landings by Basin and Grid

Compared to 2004, the occurrences of hurricanes Katrina and Rita in 2005 caused a net decline of 6.3 million pounds of crabs (14.2 percent) associated with the basins but a net increase of 3,253 pounds of crabs (12.0 percent) from the grids.

Among the basins, crab harvest from Lake Pontchartrain suffered the largest decrease of 4.2 million pounds (37.6 percent). Following Lake Pontchartrain were Barataria basin, with a decrease of 1.3 million pounds (12.8 percent) and Mississippi River, with a decrease of 675.6 thousand pounds of crabs (30.9 percent). Only crab harvest from Atchafalaya Basin benefited from Katrina and Rita, with an increase of 730.7 thousand pounds (30.5 percent) over its level in 2004. Changes in crab harvests for individual grids due to Katrina and Rita were insignificant when compared to individual basins.

When the volume of crabs landed in 2008 (Gustav and Ike year) was compared to that of 2007 across fishing areas, findings show that a net decrease of 1.7 million pounds (3.6 percent) occurred for the trip ticket basins, while a net increase of 35.1 thousand pounds occurred for the federal grids. Consider the declines in crab landings across the river basins. Major decline in the crab harvest was experienced by those from Barataria, with a decrease of 553.7 thousand pounds (6.1 percent). Following Barataria Basin were Mississippi River (489.9 thousand pounds or 31.5 percent) and Calcasieu River Basins (456.1 thousand pounds or 15.4 percent). In Gustav and Ike, only Terrebonne Basin experienced an increase (1.4 million pounds or 12.8 percent) in the volume of crabs harvested from its waters compared to 2007. For the federal grids, crab harvests from Grid 13 and Grid 15 saw the largest increases of 15,766 pounds and 14,477 pounds, respectively. Only Grid 16 had a negative change of 2,115 pounds in the crab harvest during 2008 when Gustav and Ike landed in Louisiana.

4.2.3.2 Changes in Average Dockside Prices of Crabs by Basin and Grid

As presented in section 4.2.1, there were generally modest net increases in the average real dockside prices (expressed in 2005 dollar) of crabs harvested from the trip ticket basins but huge net decreases in the average real dockside prices of crabs from the federal grids during the years that hurricanes Katrina/Rita (2005) and Gustav/Ike (2008) landed in Louisiana. Specifically, as a result of Katrina and Rita, the net increase in the dockside price of crabs harvested from all river basins in 2005 averaged $0.05 per pound (5.2 percent) compared to 2004. However, the average dockside price of crabs sourced from the grids declined by $1.21 per pound (49.2 percent) due between 2004 and 2005.

Lake Pontchartrain, Sabine River and Mississippi River Basins topped all other basins with an equal increase of $0.16 per pound in average real dockside price of associated crabs due to Katrina and Rita. This change corresponded to increases of 14.7 percent for Lake Pontchartrain, 16.7 percent for Sabine River and 21.1 percent for Mississippi River Basins, compared to their levels in 2004. Only crabs from two basins, Atchafalaya and Vermilion-Teche Rivers, had declines in the real dockside prices to the tune of $0.16 (15.4 percent) and $0.06 (5.6 percent) per pound when compared with their levels in 2004. In federal waters, the average real dockside prices decreased for crabs harvested from Grid 14 ($1.31 or 52.4 percent) and Grid 15 ($1.19 or 100.0 percent). For Grid 16, the average real dockside price of crabs rose by $1.41 compared to none in 2004, while it rose by $0.79 per pound for Grid 13 over $0.36 per pound in 2004.

As a result of hurricanes Gustav and Ike in 2008, the net increase in the real dockside prices of crabs caught from the basins when compared to 2007 averaged $0.03 per pound (3.1 percent). On the other hand, the net decrease in the real dockside prices of crabs harvested from the federal waters averaged $0.36 per pound (28.3 percent). The only 0.9 percent decline ($0.01)

recorded for the average real dockside prices per pound of crabs caught from the basins was associated with Vermilion-Teche River Basin.

Topped among other basins with increases in the average real dockside prices of crabs harvested from their waterbodies were Sabine, Mermentau and Atchafalaya River Basins. The increases in real dockside prices average $0.08 (8.7 percent) for Sabine, $0.07 (7.5 percent) for Mermentau and $0.06 (6.1 percent) for Atchafalaya River Basins. In federal waters, decreases in the average real dockside prices occurred for crabs harvested from Grid 15 ($0.76 per pound or 60.3 percent) and Grid 16 ($0.39 per pound or 21.0 percent). But for Grid 14, the real dockside price of associated crabs rose by $0.40 per pound (43.0 percent) compared to 2007.

4.2.3.3 Changes in Dockside Values of Crabs by Basin and Grid

The occurrences of hurricanes Katrina and Rita in 2005 resulted in a net decline of $3.2 million (10.5 percent compared to 2004) in the real dockside values of crabs harvested from all basins. Likewise, the decrease of $17,305 (38.6 percent) was recorded for crabs caught from all federal water areas. Specifically, the largest decrease in real dockside value of crabs to the tune of $2.6 million (29.7 percent) was associated with Lake Pontchartrain Basin. At distant second was Mississippi River Basin with a decrease of $277.9 thousand (25.4 percent) worth of crabs, followed by Terrebonne Basin with a decrease of $225.3 thousand (2.8 percent) worth of crabs. However, the real dockside values rose for crabs harvested from Atchafalaya ($209.6 thousand or 13.4 percent) and from Sabine ($12,081 or 16 percent) River Basins.

Grid 14 was the only federal water area with a substantial fall (due to Katrina and Rita) in the real dockside value of crabs reportedly harvested from them. Other federal grids (Grids 13 and 16) experienced a boost in the dockside values of crabs, which came from their waters. Precisely, the real dockside value of crabs associated with Grid 14 declined by $23,276 (52.3

percent) between 2004 and 2005. For Grid 13 and Grid 16, the increases in the dockside values of associated crab harvests were $4,154 and $1,910, respectively.

Comparing the changes in the real dockside values of crabs across fishing areas from 2007 and 2008 (Gustav and Ike), Barataria suffered the largest decrease among the basin, followed by Lake Pontchartrain and Calcasieu River. The falls in crab dockside values, due to Gustav and Ike, was approximately $1.1 million (15.6 percent) for Barataria and $442.5 thousand (4.6 percent) for Lake Pontchartrain. For Calcasieu River Basin, the real dockside value of crabs declined by $367.0 thousand (17.2 percent). Only Terrebonne Basin experienced an increase of $850.8 thousand (11.8 percent) in the real dockside value of crabs harvested from its area waters.

Except for Grid 16, the real dockside values of crabs harvested from federal water areas rose between 2007 and 2008, a change attributed to Gustav and Ike. A modest but largest increase in real dockside value ($12,127) was recorded for crabs associated with Grid 13. The increases in the values of crabs were $6,212 for Grid 15, $4,000 for Grid 14 and $1,047 for Grid 17. Grid 16 was associated in a decrease of $3,739 worth of crabs in 2008.

4.3 Hurricanes Impacts on Landings and Dockside Values of Crabs per Effort

Indicators per effort, which might have been affected by hurricanes (See Appendix Figures D.4 to D.6) in the period between 2000 and 2009, generally include average crab landings and average dockside values per fisherman, per fishing trip, per hour of trip, per fishing vessel and per foot of fishing vessel. The occurrences of Katrina and Rita in 2005 resulted in increases in the volume and real dockside value of crabs landed per fisherman. However, Gustav and Ike caused declines in the volume and real dockside value of crabs landed per fisherman. Specifically, landings of crabs rose by 4.6 percent from 24,296 pounds per fisherman in 2004 to

25,411 pounds in 2005 but fell by 4.4 percent from 32,562 pounds per fisherman in 2007 to 31,131 pounds in 2008. Similarly, real dockside value of crabs per fisherman rose by 9.1 percent from $16,753 in 2004 to $18,270 in 2005, but declined by 6.9 percent from $23,783 in 2007 to $22,142 in 2008.

However, the volumes of crabs landed per fishing trip increased by 16.2 percent from 153 pounds in 2004 to 177 pounds in 2005 due to Katrina and Rita. Likewise the pounds of crabs landed per trip rose by 13.0 percent from 176 pounds in 2007 to 199 pounds in 2008 due to Gustav and Ike. In terms of the real dockside value of crabs, Katrina and Rita resulted in 21.2 percent increase from $105 per trip in 2004 to $127 per trip in 2005. Hurricanes Gustav and Ike contributed a 10.0 percent increase in the worth of crabs per trip from $128 in 2007 to $141 in 2008.

On the basis of hour of fishing trip, crab landings increased by 17.4 percent from 20 pounds per hour in 2004 to 24 pounds per hour in 2005 due to Katrina and Rita. In the same period, real dockside value of crabs landed per hour rose by 22.4 percent from $14 an hour in 2004 to $17 an hour in 2005. In Gustav and Ike, the volume of crabs landed per hour got a boost of 10.6 percent from 23 pounds in 2007 to 26 pounds in 2008. Also, the real dockside value of crabs landed per hour increased by 7.7 percent from $17 in 2004 to $18 in 2008.

Hurricanes Katrina and Rita had a modest positive effect on per vessel measures, while Gustav and Ike had a negative effect. The amount of crabs landed per fishing vessel recorded an increase of 6.5 percent from 20,590 pounds per vessel in 2004 to 21,931 pounds in 2005, while its real dockside value rose by 11.1 percent from $14,198 per vessel in 2004 to $15,768 in 2005. These changes were attributed to Katrina and Rita. Conversely, the volume of crabs landed per vessel fell by 2.1 percent from 27,631 pounds in 2007 to 27,048 pounds in 2008 as a result of

Gustav and Ike. Likewise, the real dockside value of crabs landed per vessel declined by 4.7 percent from $20,181 in 2007 to $19,238 in 2008.

Crab landings and real dockside values per foot of fishing vessel in both 2005 and 2008 were negatively affected by hurricane occurrences. Specifically, the volumes of crabs landed per vessel foot declined by 13.8 percent from 2,039 pounds in 2004 to 1,757 pounds in 2005 due to Katrina and Rita, while it declined by 5.4 percent from 2,149 pounds in 2007 to 2,034 pounds in 2008 due to Gustav and Ike. Similarly, Katrina and Rita occurrences resulted in a decrease of 10.1 percent in the real dockside values of crabs per foot of vessel from $1,405 in 2004 to $1,263 in 2005. As a result of Gustav and Ike, real dockside value of crabs fell by 7.8 percent from $1,569 per vessel foot in 2007 to $1,446 in 2008.

4.4 Recovery of the Crab Fishery in the Aftermath of Hurricanes

Findings from this report show that the recovery indicators for the crab fishery in terms of trends in landings began, in most cases, immediately after hurricane occurrences, sometimes approaching or exceeding its pre-hurricane level a year after. In a number of occasions, contrasting effects of hurricane, compared to the pre-hurricane period, persisted for a year before recovery actually commenced. This section attempts to assess the status of recovery of the crab fishery after hurricanes Katrina and Rita in 2005 and Gustav and Ike in 2008.

Among the measures of participation and activities in the crab fishery, only the number of fishermen who resided in certain parishes and the total number of fishing trips appear to have exhibited consistent upward trends a year after the hurricane occurrences. For example, Figure 1.5 shows that the increases that have occurred since 2006 in the numbers of crab fishermen who lived in Calcasieu, Vermilion and Livingston parishes as well as individuals who resided outside of Louisiana continued to place them above the levels where they were prior to Katrina and Rita.

The declining effect of Katrina and Rita on the number of crab fishermen persisted till 2006 for parishes such as St. Bernard, St. Tammany, Cameron, Tangipahoa, Orleans and St. John after which it resumed a sluggish upward trend. Other parishes experienced consistent decreases in the numbers of resident fishermen regardless of hurricane occurrences.

Following the number of fishermen by parish of residence was the total number of fishing trips associated with crab landing in Louisiana. Figure 1.6 reveals that the upward trend exhibited by the total number of crab fishing trips since 2001 was first punctuated in 2005 due to Katrina and Rita. However, in 2006, the number of trips exceeded its levels prior to 2005, continued to increase and only to be obstructed again in 2008 by Gustav and Ike.

Consider the trends in the volume of crabs landed in Louisiana pre- or post-Katrina-Rita era. The total pounds of crabs landed in 2006, a year after Katrina and Rita, exceeded its levels in individual years from 2000 through 2005. Likewise, the crab landings in 2009, a year after Gustav and Ike, surpassed that of 2007 and 2008. This might indicate that recovery of crab landings last only a year in spite the consistent increase in the total number of fishing trips mentioned previously.

However, when compared across places of residence, fishermen in individual parishes such as St. Bernard, St. Tammany, Vermilion, Cameron and Calcasieu and out-of-state residents have seen a consistent increase in the volume of crabs landed since 2006. The volume of crab landings for fishermen in Terrebonne parish was gradually catching up compared to the pre-Katrina-Rita years. Consistent increase in crab fishing was also recorded since 2006 in three trip ticket river basins: Lake Pontchartrain, Calcasieu and Mermentau. That is, the pounds of crabs harvested from these basins since 2006 have exceeded their pre-2005 period. The discussion in this section suggests that recovery has partially occurred in the crab fishery.

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Appendix A - Participation and Activities in the Crab Fishery

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Table A.1 Number of Fishermen Who Landed Crabs by Species, 2000 - 2009

	Number of Crab Fishermen											
Species	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**	**Percent**
Blue Crab	2,231	2,214	2,036	2,017	1,827	1,499	1,352	1,411	1,423	1,484	1,749	99.9%
Stone Crab	125	150	89	30	34	17	19	42	27	16	55	3.1%
Total	**2,233**	**2,219**	**2,037**	**2,017**	**1,828**	**1,500**	**1,352**	**1,412**	**1,424**	**1,484**	**1,751**	**100.0%**

Table A.2 Number of Dealers Who Purchased Crabs by Species, 2000 – 2009

	Number of Crab Dealers											
Species	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**	**Percent**
Blue Crab	407	340	377	410	433	360	386	344	341	370	377	99.7%
Stone Crab	29	31	29	18	21	9	7	16	14	7	18	4.8%
Total	**409**	**343**	**379**	**412**	**435**	**360**	**386**	**344**	**341**	**371**	**378**	**100.0%**

Table A.3 Number of Fishermen Who Landed Crabs by License Type, 2000 - 2009

	Number of Crab Fishermen											
Type of License	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**	**Percent**
Resident Commercial Fisherman	2,076	2,132	1,987	1,972	1,784	1,452	1,278	1,320	1,356	1,397	1,675	95.7%
Non-Resident Commercial Fisherman	34	48	31	23	25	14	27	29	25	28	28	1.6%
Senior Commercial Fisherman & Gear	0	0	0	0	0	20	37	44	31	43	35	2.0%
Alien Commercial Fisherman	87	0	0	0	0	0	0	0	0	0	87	5.0%
Unspecified	36	39	19	22	19	14	10	19	12	16	21	1.2%
Total	**2,233**	**2,219**	**2,037**	**2,017**	**1,828**	**1,500**	**1,352**	**1,412**	**1,424**	**1,484**	**1,751**	**100.0%**

Table A.4 Number of Fishermen Who Landed Crabs by Parish of Residence, 2000 - 2009

	Number of Crab Fishermen										
Parish	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Terrebonne	397	448	404	394	362	287	249	236	234	224	324
St Bernard	253	244	238	251	201	175	106	126	139	171	190
Lafourche	207	232	209	197	180	149	163	144	150	159	179
Jefferson	222	231	228	194	197	155	130	126	135	116	173
St Tammany	102	83	103	128	132	97	87	97	116	124	107
St Charles	105	117	118	111	104	90	77	78	81	76	96
St Mary	145	153	114	107	86	64	71	75	55	78	95
Iberia	96	93	98	81	83	72	75	79	70	72	82
Plaquemines	125	141	91	86	81	67	37	40	30	35	73
Cameron	88	57	77	78	80	63	48	63	76	66	70
Tangipahoa	57	52	68	78	65	44	38	39	45	50	54
Calcasieu	64	55	47	48	39	29	41	49	51	46	47
Vermilion	51	43	40	32	32	34	46	48	66	69	46
Orleans	48	44	48	51	50	47	24	30	30	36	41
St Martin	40	30	20	21	10	27	27	23	17	10	23
Assumption	41	33	19	30	7	12	16	18	14	16	21

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Table A.4 Number of Fishermen Who Landed Crabs by Parish of Residence, 2000 – 2009 (Continued)

	Number of Crab Fishermen										
Parish	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Out of state	38	30	13	11	13	10	18	20	19	17	19
Livingston	13	19	17	25	19	14	15	20	20	26	19
St John	21	12	20	23	25	12	8	17	9	16	16
St James	14	14	10	11	9	6	10	9	7	9	10
Iberville	15	9	8	17	-	5	6	5	4	5	8
Jefferson Davis	-	-	-	-	5	7	14	13	9	11	7
Lafayette	12	8	4	-	4	4	6	6	5	5	6
Ascension	7	-	-	4	5	-	-	4	7	7	4
Beauregard	6	5	5	-	-	-	-	5	-	5	4
Other	**28**	**24**	**15**	**11**	**14**	**12**	**25**	**23**	**21**	**19**	**19**
Unspecified	**36**	**39**	**19**	**22**	**19**	**14**	**10**	**19**	**12**	**16**	**21**
Total	**2,233**	**2,219**	**2,037**	**2,017**	**1,828**	**1,500**	**1,352**	**1,412**	**1,424**	**1,484**	**1,751**

Note: The hyphens indicate that the values are less than four (4) and are therefore omitted for confidentiality reasons. "Other" includes Louisiana parishes having a total average that is less than 4.

Table A.5 Number of Fishermen Who Landed Blue Crabs by Parish of Residence, 2000 – 2009

	Number of Blue Crab Fishermen										
Parish	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Terrebonne	397	448	404	394	362	287	249	235	233	224	323
St Bernard	253	242	238	251	201	175	106	126	139	171	190
Lafourche	206	232	209	197	180	149	163	144	150	159	179
Jefferson	222	231	228	194	197	155	130	126	135	116	173
St Tammany	102	83	103	128	132	97	87	97	116	124	107
St Charles	105	117	118	111	104	90	77	78	81	76	96
St Mary	145	151	113	107	86	64	71	75	55	78	95
Iberia	96	93	98	81	83	72	75	79	70	72	82
Plaquemines	125	141	91	86	81	67	37	40	30	35	73
Cameron	88	57	77	78	80	63	48	63	76	66	70
Tangipahoa	57	52	68	78	65	44	38	39	45	50	54
Calcasieu	64	55	47	48	39	29	41	49	51	46	47
Vermilion	51	43	40	32	32	34	46	48	66	69	46
Orleans	48	44	48	51	50	47	24	30	30	36	41
St Martin	40	30	20	21	10	27	27	23	17	10	23
Assumption	41	33	19	30	6	12	16	18	14	16	21

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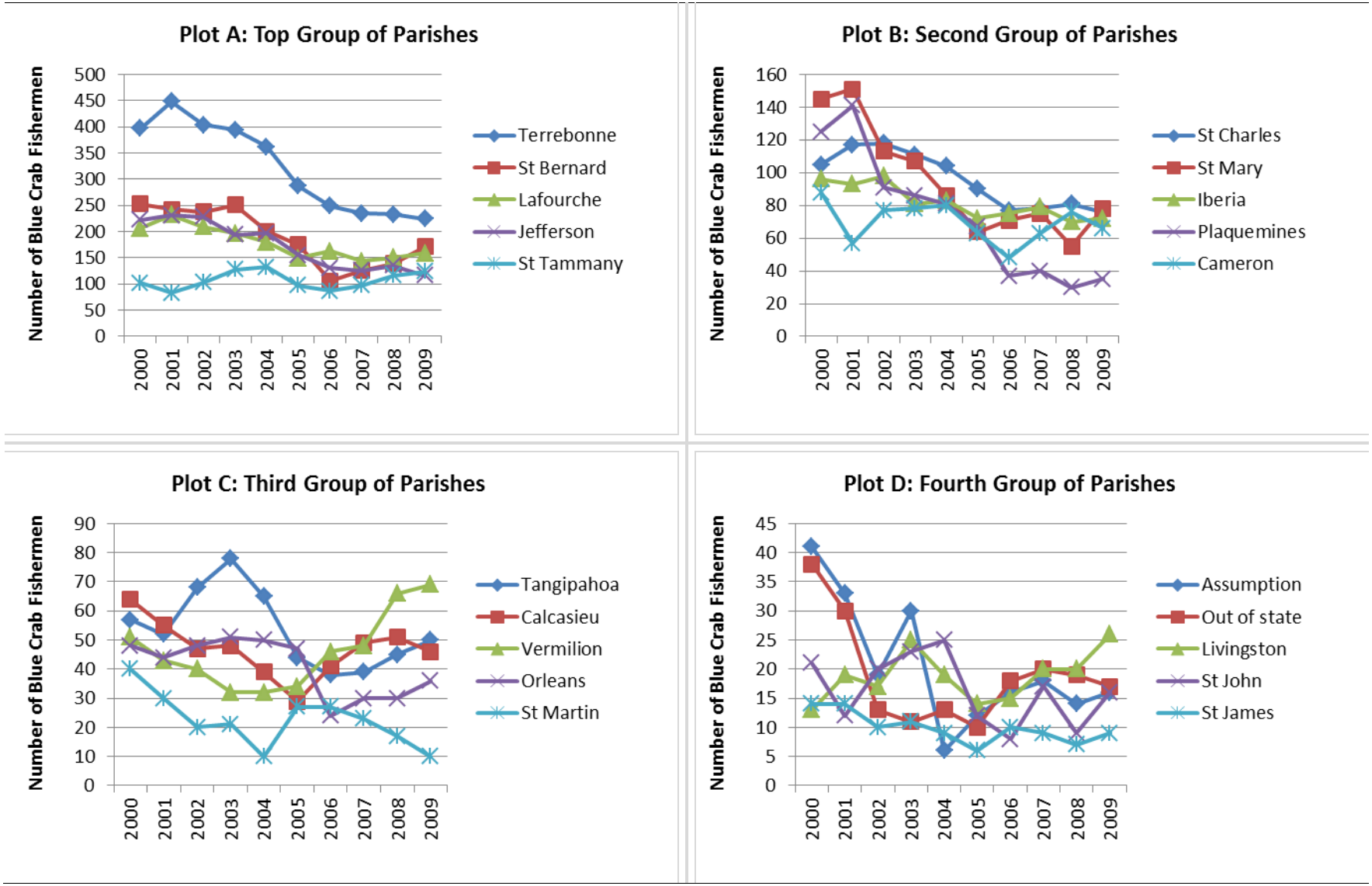
Table A.5 Number of Fishermen Who Landed Blue Crabs by Parish of Residence, 2000 – 2009 (Continued)

	Number of Blue Crab Fishermen										
Parish	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Out of state	38	30	13	11	13	10	18	20	19	17	19
Livingston	13	19	17	25	19	14	15	20	20	26	19
St John	21	12	20	23	25	12	8	17	9	16	16
St James	14	14	10	11	9	6	10	9	7	9	10
Iberville	15	9	8	17	-	5	6	5	4	5	8
Jefferson Davis	-	-	-	-	5	7	14	13	9	11	7
Lafayette	12	8	4	-	4	4	6	6	5	5	6
Ascension	7	-	-	4	5	-	-	4	7	7	4
Beauregard	6	5	5	-	-	-	-	5	-	5	4
Other	27	23	15	11	14	12	25	23	21	19	19
Unspecified	36	39	19	22	19	13	10	19	12	16	21
Total	**2,231**	**2,214**	**2,036**	**2,017**	**1,827**	**1,499**	**1,352**	**1,411**	**1,423**	**1,484**	**1,749**

Note: The hyphens indicate that the values are less than four (4) and are therefore omitted for confidentiality reasons. "Other" includes Louisiana parishes having a total average that is less than 4.



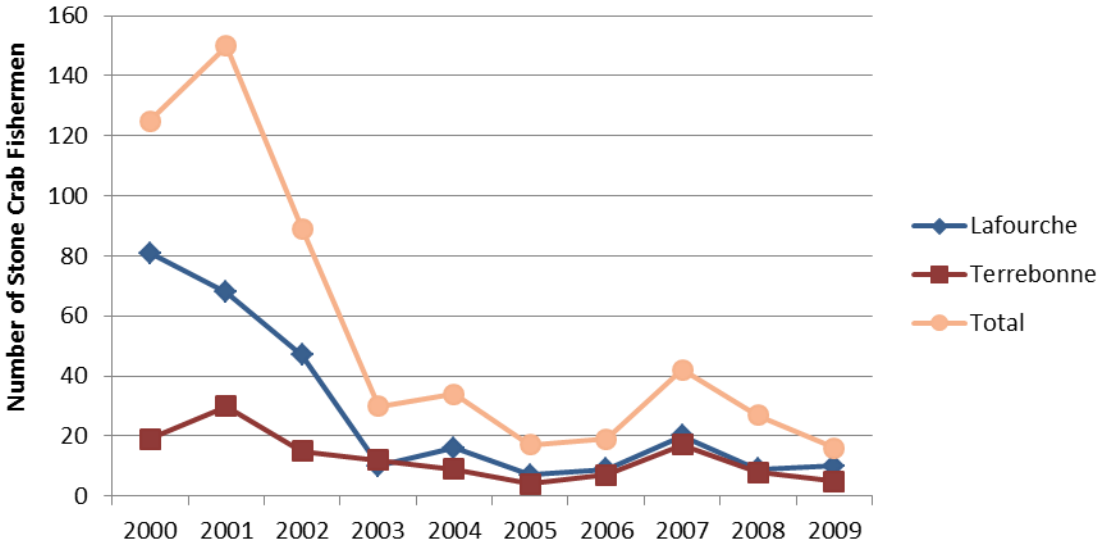
Source: Appendix Table A.5.

Figure A.1 Number of Blue Crab Fishermen by Parish of Residence, 2000 – 2009

Table A.6 Number of Fishermen Who Landed Stone Crabs by Parish of Residence, 2000 - 2009

	Number of Stone Crab Fishermen										
Parish	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Lafourche	81	68	47	10	16	7	9	20	9	10	28
Terrebonne	19	30	15	12	9	4	7	17	8	5	13
Other	25	52	27	8	9	6	-	5	10	-	18
Total	**125**	**150**	**89**	**30**	**34**	**17**	**16**	**42**	**27**	**15**	**55**

Note: The hyphens indicate that the values are less than four (4) and are therefore omitted for confidentiality reasons. "Other" includes Louisiana parishes having a total average that is less than 4.



Source: Appendix Table A.6.

Figure A.2 Number of Stone Crab Fishermen by Parish of Residence, 2000 – 2009

Table A.7 Number and Length of Fishing Trips Associated with Crab Landings, 2000 - 2009

	Number of Trips										
	2000	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Total	239,571	235,161	245,149	294,240	291,119	214,957	228,436	261,498	223,125	274,138	250,739
Average	107	106	120	146	159	143	169	185	157	185	148
	Trip Length (in Hours)										
Total	2,005,054	1,823,447	1,962,302	2,380,866	2,204,590	1,611,875	1,849,291	1,970,252	1,717,073	2,096,733	1,962,148
Average	8.3	7.7	7.9	8.1	7.5	7.5	8.1	7.5	7.7	7.6	7.8

Table A.8 Number of Crab Fishing Vessels by Type of Registration, 2000 – 2009

	Number of Crab Fishing Vessels										
Registration Type	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
U.S. Coast Guard	45	40	32	30	41	13	8	8	18	41	28
Louisiana	4,762	4,089	2,392	2,358	2,084	1,702	1,551	1,623	1,596	1,632	2,379
Non-Louisiana States	527	413	20	29	32	23	22	33	25	22	115
Total	**5,334**	**4,542**	**2,444**	**2,417**	**2,157**	**1,738**	**1,581**	**1,664**	**1,639**	**1,695**	**2,521**

Table A.9 Number of Fishing Vessels by Species of Crab Landed, 2000 - 2009

	Number of Fishing Vessels										
Species	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Blue Crab	5,324	4,527	2,439	2,416	2,155	1,737	1,580	1,656	1,637	1,694	2,517
Stone Crab	175	164	91	30	33	18	18	42	30	19	62
Total	**5,334**	**4,542**	**2,444**	**2,417**	**2,157**	**1,738**	**1,581**	**1,664**	**1,639**	**1,695**	**2,521**

Table A.10 Number of Crab Fishing Vessels by Type of Vessel License, 2000 – 2009

	Number of Crab Fishing Vessels										
Vessel License	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Resident Vessel License	1,360	1,425	1,439	1,391	1,240	982	904	931	960	976	1,161
Non-Resident Vessel License	19	27	20	13	17	8	14	19	14	20	17
Alien Vessel License	68	0	0	0	0	0	0	0	0	0	7
Unspecified	3,887	3,090	985	1,013	900	748	663	714	665	699	1,336
Total	**5,334**	**4,542**	**2,444**	**2,417**	**2,157**	**1,738**	**1,581**	**1,664**	**1,639**	**1,695**	**2,521**
Percent Specified	**27.1%**	**32.0%**	**59.7%**	**58.1%**	**58.3%**	**57.0%**	**58.1%**	**57.1%**	**59.4%**	**58.8%**	**52.5%**

Table A.11 Number of Crab Fishing Vessels by Owner's Parish of Residence, 2000 – 2009

	Number of Crab Fishing Vessels										
Parish	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Terrebonne	256	302	290	256	226	178	162	161	154	150	214
Jefferson	160	165	175	147	161	128	94	103	117	97	135
St Bernard	169	155	168	176	136	104	68	80	96	116	127
Lafourche	141	163	153	134	116	91	119	106	114	117	125
St Charles	80	87	93	96	84	73	59	55	54	52	73
St Tammany	68	58	70	85	86	66	52	55	68	80	69
Iberia	80	81	73	68	63	59	58	60	60	61	66
St Mary	86	88	91	71	62	40	51	50	40	48	63
Plaquemines	93	92	68	72	58	54	32	35	32	32	57
Tangipahoa	46	37	57	69	58	36	34	33	39	38	45
Cameron	42	37	46	45	48	30	23	44	42	26	38
Vermilion	34	32	31	27	26	25	29	28	42	48	32
Calcasieu	44	31	38	33	23	18	30	19	29	23	29
Orleans	25	28	30	42	31	27	20	20	20	21	26
Livingston	8	9	9	12	14	10	14	16	12	17	12
St John	10	9	11	15	17	11	8	16	7	12	12
St Martin	23	13	12	9	7	11	16	9	5	6	11

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Table A.11 Number of Crab Fishing Vessels by Owner's Parish of Residence, 2000 – 2009 (Continued)

	Number of Crab Fishing Vessels										
Parish	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Assumption	23	20	14	14	4	4	9	8	7	7	11
Out of state	21	16	5	10	11	-	9	10	10	12	11
St James	9	7	7	6	9	5	7	8	6	5	7
Iberville	7	6	5	7	-	-	-	4	-	-	6
Other	22	16	13	10	14	14	21	30	18	25	18
Unspecified	3,887	3,090	985	1,013	900	748	663	714	665	699	1,336
Total	**5,334**	**4,542**	**2,444**	**2,417**	**2,154**	**1,732**	**1,578**	**1,664**	**1,637**	**1,692**	**2,521**

Note: The hyphens indicate that the values are less than four (4) and are therefore omitted for confidentiality reasons. "Other" includes Louisiana parishes having a total average that is less than 4.

Table A.12 Number of Crab Fishing Vessels by Vessel Length Category, 2000 – 2009

	Number of Crab Fishing Vessels										
Vessel Length	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
19 Feet or Less	561	538	519	495	423	298	302	288	275	295	399
20 - 24 Feet	517	536	574	546	515	453	432	455	438	449	492
25 - 30 Feet	229	222	194	197	177	146	116	123	148	139	169
31 - 50 Feet	134	141	158	151	136	87	64	82	105	104	116
51 - 65 Feet	6	14	11	7	-	5	-	-	7	6	6
Unspecified	3,887	3,090	985	1,013	900	748	663	714	665	699	1,336
Total	**5,334**	**4,542**	**2,444**	**2,417**	**2,157**	**1,738**	**1,581**	**1,664**	**1,639**	**1,695**	**2,521**
Percent Specified	**27.1%**	**32.0%**	**59.7%**	**58.1%**	**58.3%**	**57.0%**	**58.1%**	**57.1%**	**59.4%**	**58.8%**	**52.5%**

Note: Vessels of length 66 feet or above were removed for confidentiality reasons. The hyphens also indicate the entries were removed for confidentiality reasons.

Table A.13 Number of Crab Fishermen by Fishing Gear, 2000 – 2009

	Number of Crab Fishermen										
Gear Type	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Crab Pots & Traps	2,169	2,137	1,942	1,904	1,755	1,477	1,329	1,413	1,368	1,417	1,691
Skimmer Nets	57	94	84	65	46	12	14	15	38	43	47
Shrimp Otter Trawl	51	58	38	38	33	6	10	13	21	20	29
Butterfly Nets	27	33	38	23	11	5	3	1	10	5	16
Trot Lines	11	15	10	9	8	8	5	6	6	4	8
Other Gear	39	26	13	8	7	8	10	5	7	11	13
Number of Crabbers	**2,233**	**2,219**	**2,037**	**2,017**	**1,828**	**1,500**	**1,352**	**1,412**	**1,424**	**1,484**	**1,751**

Note: "Other Gear" includes wire nets, fish hoop and fyke nets, etc. An average of 96.6 percent of crabbers used crab pots and traps from 2000 to 2009.

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Appendix B - Crab Landings, Dockside Prices and Values

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Table B.1 Crab Landings by Species, 2000 – 2009

	Landings of Crab (in Pounds)										
Species	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Blue Crab	52,047,681	41,799,366	50,124,028	48,089,667	44,411,309	38,116,096	53,468,462	45,973,927	44,328,769	52,986,750	47,134,606
Stone Crab	50,765	26,604	8,125	12,274	1,683	649	1,633	4,247	2,424	1,721	11,013
All Crabs	**52,098,446**	**41,825,970**	**50,132,153**	**48,101,941**	**44,412,992**	**38,116,745**	**53,470,094**	**45,978,174**	**44,331,193**	**52,988,471**	**47,145,618**

Table B.2 Average Dockside Prices of Crabs per Pound by Species, 2000 – 2009

	Average Nominal Prices of Crabs per Pound (in $)										
Species	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Blue Crab	0.90	1.04	0.92	0.93	0.94	1.02	0.80	1.01	1.07	0.91	0.95
Stone Crab	2.51	2.28	2.33	3.22	2.62	3.02	2.49	2.81	3.18	2.69	2.72
All Crabs	**0.92**	**1.04**	**0.92**	**0.93**	**0.94**	**1.02**	**0.80**	**1.01**	**1.07**	**0.91**	**0.96**

	Average Real Prices of Crabs per Pound (in 2005 $)										
Species	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Blue Crab	1.01	1.14	1.00	0.99	0.97	1.02	0.78	0.96	0.98	0.83	0.97
Stone Crab	2.82	2.51	2.53	3.43	2.70	3.02	2.42	2.65	2.92	2.45	2.75
All Crabs	**1.03**	**1.15**	**1.00**	**0.99**	**0.97**	**1.02**	**0.78**	**0.96**	**0.99**	**0.83**	**0.97**

Table B.3 Dockside Values of Crabs by Species, 2000 – 2009

	Nominal Dockside Values of Crabs (in $)										
Species	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Blue Crab	34,461,335	32,015,330	30,685,182	33,626,006	29,702,059	27,403,415	32,322,976	35,584,683	34,360,645	37,219,816	32,738,145
Stone Crab	113,582	56,870	16,903	43,106	3,970	1,777	4,181	11,391	7,577	4,647	26,400
All Crabs	**34,574,917**	**32,072,199**	**30,702,086**	**33,669,112**	**29,706,028**	**27,405,193**	**32,327,157**	**35,596,074**	**34,368,222**	**37,224,463**	**32,764,545**
	Real Dockside Values of Crabs (in 2005 Dollar)										
Species	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Blue Crab	38,720,602	35,181,681	33,353,459	35,772,347	30,620,679	27,403,415	31,381,530	33,570,456	31,523,528	33,836,196	33,136,389
Stone Crab	127,620	62,494	18,373	45,857	4,093	1,777	4,060	10,746	6,952	4,224	28,620
All Crabs	**38,848,221**	**35,244,175**	**33,371,832**	**35,818,204**	**30,624,772**	**27,405,193**	**31,385,590**	**33,581,202**	**31,530,479**	**33,840,421**	**33,165,009**

Table B.4 Crab Landings by Fisherman's Parish of Residence, 2000 – 2009

Parish	Crab Landings (in Pounds)										
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Average
Terrebonne	9,050,044	10,445,340	11,077,695	11,231,623	7,804,231	7,072,253	7,718,335	8,265,852	8,072,209	9,069,659	8,980,724
Lafourche	5,765,285	5,983,070	7,249,690	6,066,419	5,594,755	5,893,459	7,295,746	5,747,641	5,823,163	7,094,729	6,251,396
St Bernard	5,688,973	3,863,648	6,040,172	6,350,937	6,910,781	4,195,465	4,361,850	6,549,537	6,714,045	10,509,408	6,118,482
Iberia	7,436,953	4,311,425	4,757,422	4,621,413	4,603,836	4,959,438	6,987,983	4,311,606	3,542,663	4,554,738	5,008,748
St Charles	4,430,781	3,796,249	5,358,981	4,872,176	4,737,303	4,266,453	4,591,748	3,257,599	4,633,602	4,571,519	4,451,641
Jefferson	2,661,321	2,418,474	3,160,340	2,080,431	3,307,775	2,530,269	3,674,631	2,803,537	3,142,297	3,100,816	2,887,989
Plaquemines	4,347,400	2,501,484	2,715,796	2,989,522	2,757,472	1,802,262	3,148,591	1,993,480	1,378,144	1,180,792	2,481,494
St Mary	3,199,188	2,321,938	2,404,967	2,331,122	1,513,705	1,735,343	3,025,360	1,738,862	1,362,248	1,507,320	2,114,005
St Tammany	976,442	909,827	1,423,561	1,681,114	1,688,753	950,047	3,189,947	2,704,251	2,590,205	2,856,041	1,897,019
Vermilion	1,579,981	830,496	872,523	847,888	1,137,944	1,022,557	2,111,064	1,681,003	1,554,215	1,924,755	1,356,243
Cameron	1,183,600	860,225	1,246,386	1,099,463	1,177,809	954,374	1,190,043	2,095,692	1,544,559	1,804,866	1,315,702
Tangipahoa	1,035,348	772,107	1,108,041	1,073,518	673,381	384,006	884,129	789,130	689,948	707,130	811,674
Calcasieu	592,919	428,089	660,304	503,771	447,111	369,683	848,317	1,115,593	1,226,124	1,412,882	760,479
Orleans	425,801	411,155	444,331	1,083,521	888,926	624,292	1,264,045	783,397	599,129	797,053	732,165
Out of state	1,433,265	371,090	139,953	63,547	89,205	81,140	545,840	573,065	298,264	488,937	408,431
Livingston	140,105	206,579	258,004	300,945	307,008	238,537	937,858	398,100	270,734	354,209	341,208
St Martin	555,564	211,852	222,938	171,191	139,270	342,771	547,494	209,559	188,716	182,769	277,212
St James	518,024	384,884	431,711	265,069	164,950	171,021	176,218	58,620	40,658	38,342	224,950
Assumption	283,928	296,417	223,057	127,837	14,017	30,867	102,864	112,248	66,836	106,694	136,477
St John	127,326	83,566	113,475	129,210	173,038	91,586	189,691	127,023	113,154	164,524	131,259
Jefferson Davis	21,088	11,721	30,274	14,076	34,986	75,369	226,496	127,284	144,402	129,480	81,518

Continue on next page.

Table B.4 Crab Landings by Fisherman's Parish of Residence, 2000 – 2009 (Continued)

Parish	Crab Landings (in Pounds)										
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Average
Lafayette	73,918	9,750	22,452	432	31,804	108,348	163,666	125,616	105,983	140,239	78,221
Beauregard	35,270	49,992	44,713	26,904	78,714	17,140	84,269	107,961	43,630	67,440	55,603
Iberville	36,878	55,746	28,926	49,052	2,281	19,706	48,925	68,164	50,076	27,090	38,684
Washington	0	15	14,212	31,143	47,459	58,272	31,422	38,038	7,955	7,044	26,173
Acadia	8,043	45,893	10,948	0	0	205	26,845	25,134	25,764	92,222	29,382
Ascension	42,927	24,635	3,648	5,626	37,585	10,380	26,395	5,484	20,868	47,129	22,468
Other	307,239	119,743	48,426	27,602	22,466	40,631	40,596	80,523	55,667	22,383	76,528
Unspecified	140,837	100,560	19,211	56,391	26,427	70,872	29,728	84,175	25,935	28,265	58,240
Total	**52,098,446**	**41,825,970**	**50,132,153**	**48,101,941**	**44,412,992**	**38,116,745**	**53,470,094**	**45,978,174**	**44,331,193**	**52,988,471**	**47,145,618**

Note: "Other" includes all other parishes in Louisiana with inconsistent pounds of crab landings from 2000 through 2009.

Table B.5 Nominal Dockside Values of Crab by Fisherman's Parish of Residence, 2000 – 2009

	Nominal Dockside Values of Crab (in $)										
Parish	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Terrebonne	5,664,347	7,484,660	6,331,655	7,235,881	4,924,137	4,668,847	4,021,911	5,647,110	5,614,348	5,645,282	5,723,818
Lafourche	3,766,352	4,644,845	4,492,576	4,277,354	3,781,873	4,406,251	4,670,832	4,712,570	4,655,717	4,778,268	4,418,664
St Bernard	3,434,476	2,772,540	3,452,998	3,867,397	3,906,444	3,222,714	2,328,000	4,726,892	4,676,684	6,985,375	3,937,352
Iberia	5,103,029	3,642,467	2,941,962	3,319,919	3,185,531	3,210,349	4,255,443	3,629,804	3,118,527	3,740,047	3,614,708
St Charles	3,312,018	2,997,077	3,317,864	3,327,752	3,170,625	3,156,649	2,933,042	2,630,566	3,638,069	2,968,416	3,145,208
Jefferson	1,940,783	1,890,609	1,953,795	1,464,398	2,110,152	1,882,919	2,520,721	2,204,982	2,255,684	1,988,699	2,021,274
St Tammany	876,550	957,472	1,175,040	1,744,237	1,754,692	1,037,368	2,195,331	2,368,142	2,256,773	2,400,469	1,676,607
Plaquemines	2,572,089	1,629,771	1,409,249	1,643,260	1,460,418	1,092,412	1,436,270	1,221,656	765,417	694,762	1,392,530
St Mary	1,976,223	1,639,836	1,214,782	1,380,074	904,955	979,628	1,621,086	1,252,782	978,579	1,087,983	1,303,593
Vermilion	954,683	562,973	526,827	558,237	713,167	680,078	1,479,896	1,447,443	1,387,984	1,522,059	983,335
Cameron	787,295	633,948	842,387	762,206	784,029	708,769	688,964	1,590,338	1,270,363	1,344,913	941,321
Tangipahoa	926,963	970,067	1,179,895	1,539,493	836,680	430,235	840,902	849,614	893,512	727,339	919,470
Orleans	367,657	352,251	331,840	996,955	775,067	578,128	837,627	666,519	571,010	672,054	614,911
Calcasieu	395,883	335,046	465,054	380,882	332,436	315,651	502,064	848,643	907,284	1,033,707	551,665
Livingston	148,454	236,620	268,973	405,487	322,043	225,160	577,733	420,772	356,796	328,082	329,012
Out of state	944,172	300,053	64,840	48,700	87,712	89,130	274,698	469,159	237,191	355,406	287,106
St Martin	331,013	146,276	124,414	110,765	103,001	205,960	298,235	147,389	127,594	150,063	174,471
St James	346,039	297,691	278,970	191,249	119,494	115,058	123,029	34,547	34,303	30,407	157,079
St John	128,819	101,505	106,278	154,614	208,610	96,696	177,460	142,000	143,896	189,884	144,976
Assumption	173,096	181,421	74,721	83,074	9,843	20,339	132,815	91,875	60,568	82,729	91,048
Jefferson Davis	14,050	9,048	20,843	9,277	17,600	70,639	176,528	112,911	155,005	126,287	71,219

Continue on next page.

Table B.5 Nominal Dockside Values of Crab by Fisherman's Parish of Residence, 2000 – 2009 (Continued)

Parish	Nominal Dockside Values of Crab (in $)										
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Average
Lafayette	50,136	6,920	13,627	245	21,031	56,285	74,790	76,743	67,217	124,261	49,126
Beauregard	23,011	40,133	37,184	20,664	59,518	14,643	47,562	90,072	34,509	48,484	41,578
Acadia	5,352	29,398	8,269	0	0	108	17,687	31,672	26,822	94,359	26,708
Washington	0	68	17,617	50,186	50,955	58,835	13,601	26,001	6,424	8,332	25,780
Iberville	22,074	29,166	12,470	29,725	1,149	12,816	21,939	36,765	34,661	16,030	21,680
Other	206,358	94,687	27,231	28,002	43,558	32,802	38,925	62,775	73,359	62,693	67,039
Unspecified	103,998	85,653	10,726	39,077	21,307	36,725	20,065	56,334	19,925	18,073	41,188
Total	**34,574,917**	**32,072,199**	**30,702,086**	**33,669,112**	**29,706,028**	**27,405,193**	**32,327,157**	**35,596,074**	**34,368,222**	**37,224,463**	**32,764,545**

Note: "Other" includes all other parishes in Louisiana with inconsistent nominal values of crab landings from 2000 through 2009.

Table B.6 Real Dockside Values of Crab by Fisherman's Parish of Residence, 2000 – 2009

	Real Dockside Values of Crab (in 2005 Dollar)										
Parish	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Terrebonne	6,364,434	8,224,901	6,882,233	7,697,746	5,076,430	4,668,847	3,904,768	5,327,462	5,150,778	5,132,074	5,842,967
Lafourche	4,231,856	5,104,225	4,883,235	4,550,377	3,898,839	4,406,251	4,534,789	4,445,821	4,271,300	4,343,880	4,467,057
St Bernard	3,858,962	3,046,747	3,753,258	4,114,252	4,027,261	3,222,714	2,260,194	4,459,332	4,290,536	6,350,341	3,938,360
Iberia	5,733,741	4,002,711	3,197,785	3,531,828	3,284,053	3,210,349	4,131,498	3,424,344	2,861,034	3,400,043	3,677,739
St Charles	3,721,369	3,293,491	3,606,374	3,540,162	3,268,686	3,156,649	2,847,614	2,481,666	3,337,678	2,698,560	3,195,225
Jefferson	2,180,655	2,077,592	2,123,690	1,557,870	2,175,415	1,882,919	2,447,302	2,080,172	2,069,435	1,807,909	2,040,296
St Tammany	984,888	1,052,167	1,277,217	1,855,572	1,808,961	1,037,368	2,131,389	2,234,096	2,070,434	2,182,245	1,663,434
Plaquemines	2,889,988	1,790,957	1,531,792	1,748,148	1,505,586	1,092,412	1,394,437	1,152,506	702,217	631,602	1,443,965
St Mary	2,220,476	1,802,017	1,320,415	1,468,164	932,943	979,628	1,573,870	1,181,869	897,778	989,075	1,336,624
Vermilion	1,072,677	618,652	572,639	593,869	735,224	680,078	1,436,792	1,365,512	1,273,380	1,383,690	973,251
Tangipahoa	1,041,531	1,066,007	1,282,495	1,637,759	862,556	430,235	816,410	801,522	819,735	661,218	941,947
Cameron	884,601	696,646	915,638	810,857	808,277	708,769	668,897	1,500,319	1,165,471	1,222,649	938,212
Orleans	413,097	387,089	360,696	1,060,590	799,038	578,128	813,230	628,791	523,862	610,958	617,548
Calcasieu	444,812	368,183	505,493	405,194	342,718	315,651	487,440	800,607	832,371	939,734	544,220
Livingston	166,802	260,022	292,362	431,370	332,003	225,160	560,906	396,955	327,336	298,256	329,117
Out of state	1,060,867	329,729	70,479	51,809	90,425	89,130	266,697	442,602	217,607	323,096	294,244
St Martin	371,924	160,742	135,232	117,835	106,187	205,960	289,548	139,046	117,059	136,421	177,995
St James	388,807	327,133	303,229	203,456	123,190	115,058	119,446	32,591	31,471	27,643	167,202
St John	144,741	111,544	115,519	164,483	215,062	96,696	172,291	133,962	132,015	172,622	145,894
Assumption	194,490	199,364	81,219	88,377	10,148	20,339	128,947	86,675	55,567	75,208	94,033
Jefferson Davis	15,786	9,942	22,656	9,869	18,145	70,639	171,387	106,520	142,207	114,806	68,196
Lafayette	56,332	7,604	14,812	260	21,682	56,285	72,612	72,399	61,667	112,965	47,662
Beauregard	25,855	44,102	40,417	21,983	61,359	14,643	46,177	84,973	31,659	44,076	41,524

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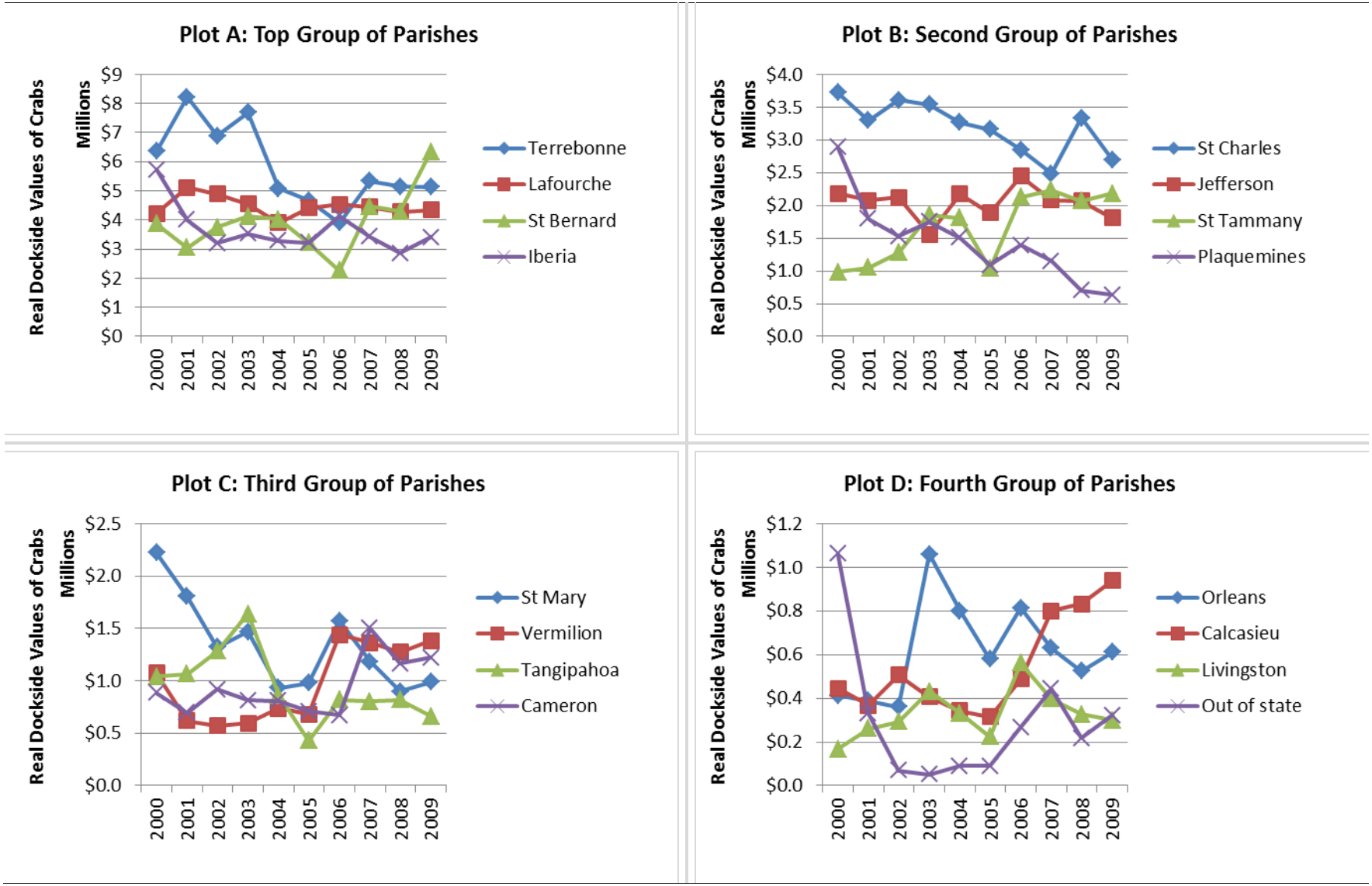
Table B.6 Real Dockside Values of Crab by Fisherman's Parish of Residence, 2000 – 2009 (Continued)

	Real Dockside Values of Crab (in 2005 Dollar)										
Parish	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Washington	0	74	19,149	53,389	52,531	58,835	13,205	24,529	5,893	7,574	26,131
Iberville	24,802	32,051	13,555	31,622	1,184	12,816	21,300	34,684	31,799	14,572	21,839
Acadia	6,013	32,306	8,988	0	0	108	17,171	29,879	24,607	85,780	25,607
Ascension	26,655	17,671	3,632	8,403	30,163	11,980	13,842	3,316	24,689	41,038	18,139
Other	205,206	86,382	25,967	21,387	14,742	20,822	23,949	55,904	42,614	15,955	51,293
Unspecified	116,851	94,124	11,658	41,571	21,966	36,725	19,481	53,146	18,280	16,430	43,023
Total	**38,848,221**	**35,244,175**	**33,371,832**	**35,818,204**	**30,624,772**	**27,405,193**	**31,385,590**	**33,581,202**	**31,530,479**	**33,840,421**	**33,165,009**

Note: "Other" includes all other parishes in Louisiana with inconsistent pounds of crab landings from 2000 through 2009.



Source: Appendix Table B.6. Real values are in 2005 dollar.

Figure B.1 Real Dockside Values of Crabs by Fisherman's Parish of Residence, 2000 - 2009

Table B.7 Non-Resident's Crab Landings by State of Residence, 2000 – 2009

	Crab Landings (in Pounds)										
State	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Mississippi	107,096	103,831	10,221	42,199	73,575	81,140	149,623	298,244	293,449	373,128	153,251
Texas	886,547	93,219	36,412	9,894	315	0	140,631	62,669	268	0	122,996
Alabama	353,544	161,639	93,320	10,059	15,315	0	49,933	72,037	829	59,139	81,582
Florida	86,078	12,402	0	0	0	0	17,232	41,173	3,718	56,670	21,727
Other	0	0	0	1,395	0	0	188,421	98,942	0	0	28,876
Total	1,433,265	371,091	139,953	63,547	89,205	81,140	545,840	573,065	298,264	488,937	408,431

Note: "Other" includes Maine, Kentucky and Oregon.

Table B.8 Nominal Dockside Values of Non-Resident's Crab Landings by State of Residence, 2000 – 2009

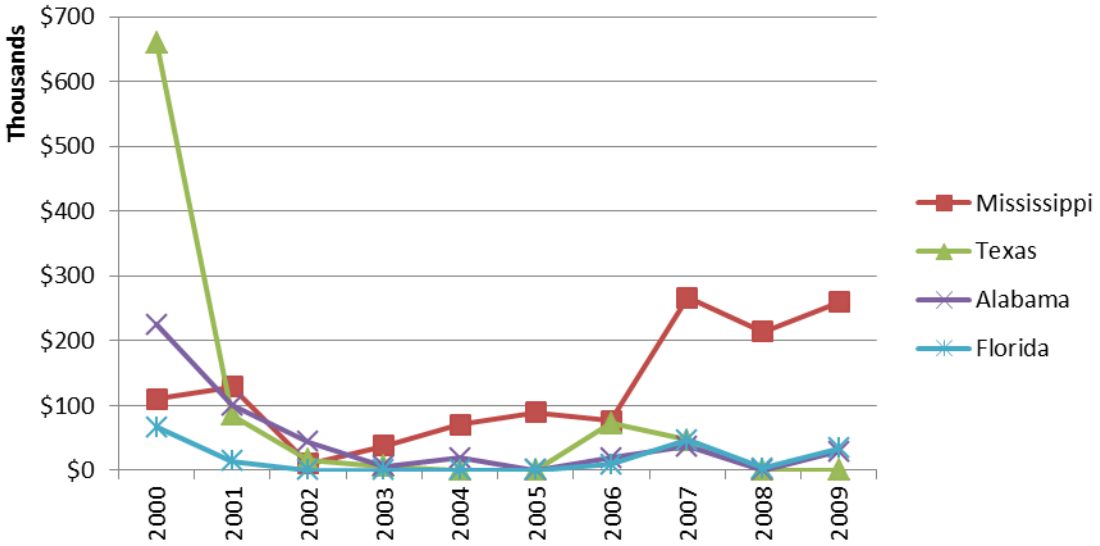
	Nominal Dockside Values of Crab (in $)										
State	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Mississippi	97,824	117,795	9,289	35,828	68,949	89,130	79,302	282,324	233,044	285,020	129,851
Texas	587,210	77,933	14,669	5,591	441	0	75,011	49,889	317	0	81,106
Alabama	200,006	91,744	40,882	5,656	18,322	0	19,932	39,644	550	32,419	44,916
Florida	59,132	12,581	0	0	0	0	10,070	49,843	3,281	37,967	17,287
Other	0	0	0	1,625	0	0	90,384	47,459	0	0	13,947
Total	944,172	300,053	64,840	48,700	87,712	89,130	274,699	469,159	237,192	355,406	287,106

Note: "Other" includes Maine, Kentucky and Oregon.

Table B.9 Real Dockside Values of Non-Resident's Crab Landings by State of Residence, 2000 – 2009

	Real Dockside Values of Crab (in 2005 Dollar)										
State	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Mississippi	109,915	129,445	10,096	38,115	71,082	89,130	76,992	266,344	213,802	259,109	126,403
Texas	659,787	85,641	15,945	5,948	455	0	72,826	47,065	291	0	88,796
Alabama	224,726	100,818	44,437	6,017	18,888	0	19,351	37,400	504	29,472	48,161
Florida	66,440	13,825	0	0	0	0	9,777	47,022	3,010	34,516	17,459
Other	0	0	0	1,728	0	0	87,751	44,772	0	0	13,425
Total	1,060,868	329,729	70,478	51,808	90,425	89,130	266,697	442,603	217,607	323,097	294,244

Note: "Other" includes Maine, Kentucky and Oregon.



Source: Appendix Table B.9. Real values are measured in 2005 Dollar.

Figure B.2 Real Dockside Values of Non-Resident's Crab Landings by State of Residence, 2000 – 2009

Table B.10 Crab Landings by LDWF Trip Ticket Basin and NMFS Grid, 2000 – 2009

	Crab Landings (in Pounds)										
Basin	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Terrebonne	14,897,967	16,607,024	16,543,242	15,231,027	11,835,257	11,353,560	11,832,225	10,854,787	12,239,133	13,897,996	13,529,222
Lake Pontchartrain	8,361,143	6,372,802	10,155,371	11,962,956	11,226,207	7,001,112	12,282,638	12,611,471	12,192,529	16,212,555	10,837,878
Barataria	7,260,600	6,455,968	10,634,677	8,664,927	9,876,480	8,609,224	11,026,252	9,028,518	8,474,776	9,267,821	8,929,924
Vermilion-Teche River	7,018,843	4,598,508	5,015,739	4,859,588	4,843,798	4,839,223	7,119,543	4,616,128	4,225,847	5,808,180	5,294,540
Atchafalaya River	6,881,678	3,499,685	3,572,749	3,511,762	2,394,826	3,125,567	4,348,115	2,214,205	1,972,897	1,721,073	3,324,256
Mississippi River	5,377,887	2,624,908	2,073,101	2,020,675	2,188,977	1,513,404	2,787,535	1,555,349	1,065,437	1,220,231	2,242,750
Calcasieu River	1,268,604	875,281	1,347,868	1,106,446	1,275,037	1,011,884	2,093,544	2,956,320	2,500,270	2,829,025	1,726,428
Mermentau River	561,127	588,400	610,612	674,531	654,409	547,620	1,806,197	2,031,869	1,608,598	1,999,210	1,108,257
Sabine River	276,091	153,942	139,779	64,011	89,088	84,794	107,327	100,818	12,632	0	114,276
Pearl River	0	0	0	0	382	0	0	0	0	0	382
Basin Subtotal	**51,903,940**	**41,776,518**	**50,093,138**	**48,095,923**	**44,384,461**	**38,086,388**	**53,403,376**	**45,969,465**	**44,292,119**	**52,956,091**	**47,096,142**
Percent of All Fishing Areas	**99.6%**	**99.9%**	**99.9%**	**100.0%**	**99.9%**	**99.9%**	**99.9%**	**100.0%**	**99.9%**	**99.9%**	**99.9%**
Grids											
Grid 14	25,246	6,879	6,755	642	26,505	24,051	21,476	1,035	6,536	50	11,918
Grid 13	1,135	417	10,709	2,337	382	4,515	33,890	0	15,766	23,270	9,242

Continue on next page.

Table B.10 Crab Landings by LDWF Trip Ticket Basin and NMFS Grid, 2000 – 2009 (Continued)

	Crab Landings (in Pounds)										
Basin	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Grid 15	2,266	7,760	9,962	218	110	5	0	730	15,207	2,394	3,865
Grid 16	0	1,580	9,034	2,406	0	1,679	275	2,190	75	1,050	1,829
Grid 17	0	0	0	0	0	0	4,267	0	1,490	0	2,879
Grid 12	260	1,088	0	0	0	0	0	0	0	0	674
Grid Subtotal	**28,907**	**17,724**	**36,460**	**5,603**	**26,997**	**30,250**	**59,908**	**3,955**	**39,074**	**26,764**	**27,564**
Percent of All Fishing Areas	**0.1%**	**0.0%**	**0.1%**	**0.0%**	**0.1%**	**0.1%**	**0.1%**	**0.0%**	**0.1%**	**0.1%**	**0.1%**
Unspecified	164,311	31,411	2,147	403	1,534	108	6,811	4,755	0	5,616	24,122
Percent of All Fishing Areas	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
All Fishing Areas	**52,097,157**	**41,825,652**	**50,131,746**	**48,101,929**	**44,412,992**	**38,116,745**	**53,470,094**	**45,978,174**	**44,331,193**	**52,988,471**	**47,145,415**

Table B.11 Average Nominal Dockside Prices of Crabs by LDWF Trip Ticket Basin and NMFS Grid, 2000 – 2009

	Average Nominal Dockside Prices of Crabs (in $)										
Basin	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Vermilion-Teche River	1.02	1.27	1.10	1.10	1.05	1.02	0.95	1.18	1.20	1.17	1.11
Lake Pontchartrain	0.97	1.10	0.96	1.03	1.06	1.25	0.94	1.05	1.10	0.91	1.04
Atchafalaya River	1.01	1.11	0.91	0.96	1.01	0.88	0.83	1.04	1.13	1.02	0.99
Sabine River	0.75	0.89	0.94	0.98	0.93	1.12	0.75	0.97	1.09	-	0.94
Barataria	0.91	1.01	0.91	0.90	0.88	1.01	0.77	1.02	1.07	0.84	0.93
Terrebonne	0.85	0.99	0.90	0.87	0.90	0.97	0.71	0.97	1.06	0.85	0.91
Mermentau River	0.71	0.80	0.72	0.68	0.66	0.82	0.84	0.99	1.09	0.96	0.83
Mississippi River	0.91	0.92	0.77	0.78	0.74	0.92	0.61	0.83	0.89	0.73	0.81
Calcasieu River	0.72	0.82	0.78	0.77	0.76	0.84	0.68	0.83	0.85	0.84	0.79
Pearl River	-	-	-	-	0.78	-	-	-	-	-	0.78
All Basins	**0.92**	**1.04**	**0.92**	**0.93**	**0.94**	**1.02**	**0.80**	**1.01**	**1.07**	**0.91**	**0.96**
Percent of All Fishing Areas	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
Grids											
Grid 15	1.40	0.88	1.33	0.90	1.15	6.00	-	1.33	0.55	1.91	1.72
Grid 12	1.60	1.32	-	-	-	-	-	-	-	-	1.46

Continue on next page.

Table B.11 Average Nominal Dockside Prices of Crabs by LDWF Trip Ticket Basin and NMFS Grid, 2000 – 2009 (Continued)

	Average Nominal Dockside Prices of Crabs (in $)										
Grids	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Grid 16	-	0.50	1.39	1.50	-	1.41	1.47	1.97	1.60	1.60	1.43
Grid 14	1.07	1.17	1.13	0.54	2.43	1.19	0.65	0.99	1.45	0.50	1.11
Grid 13	0.92	1.08	1.04	1.47	0.35	1.15	0.89	-	1.06	1.11	1.01
Grid 17	-	-	-	-	-	-	0.98	-	0.88	-	0.93
All Grids	**1.09**	**1.10**	**1.25**	**1.41**	**2.38**	**1.25**	**0.83**	**1.35**	**0.99**	**1.40**	**1.31**
Percent of All Fishing Areas	**118.5%**	**105.8%**	**135.9%**	**151.6%**	**253.2%**	**122.5%**	**103.8%**	**133.7%**	**92.5%**	**153.8%**	**137.1%**
Unspecified	0.88	1.11	2.30	2.00	0.48	2.40	2.65	0.93	-	0.93	1.52
Percent of All Fishing Areas	95.7%	106.7%	250.0%	215.1%	51.1%	235.3%	331.3%	92.1%	0.0%	102.2%	147.9%
All Fishing Areas	**0.92**	**1.04**	**0.92**	**0.93**	**0.94**	**1.02**	**0.8**	**1.01**	**1.07**	**0.91**	**0.96**

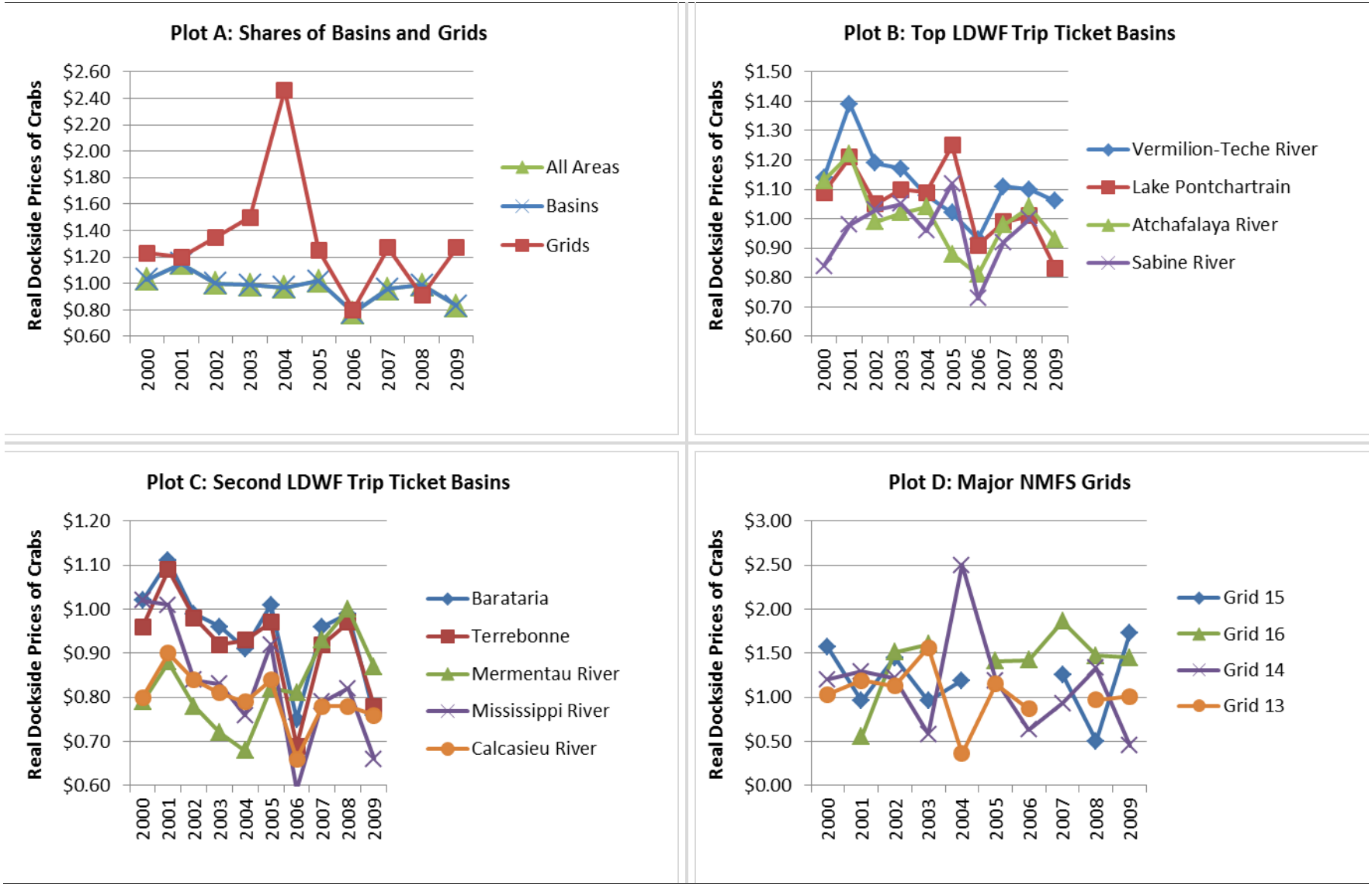
Table B.12 Average Real Dockside Prices of Crabs by LDWF Trip Ticket Basin and NMFS Grid, 2000 – 2009

	Average Real Dockside Prices of Crabs (in 2005 $)										
Basin	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Vermilion-Teche River	1.14	1.39	1.19	1.17	1.08	1.02	0.93	1.11	1.10	1.06	1.12
Lake Pontchartrain	1.09	1.21	1.05	1.10	1.09	1.25	0.91	0.99	1.01	0.83	1.05
Atchafalaya River	1.13	1.22	0.99	1.02	1.04	0.88	0.81	0.98	1.04	0.93	1.00
Sabine River	0.84	0.98	1.03	1.05	0.96	1.12	0.73	0.92	1.00	-	0.96
Barataria	1.02	1.11	0.99	0.96	0.91	1.01	0.75	0.96	0.99	0.76	0.95
Terrebonne	0.96	1.09	0.98	0.92	0.93	0.97	0.69	0.92	0.97	0.78	0.92
Mermentau River	0.79	0.88	0.78	0.72	0.68	0.82	0.81	0.93	1.00	0.87	0.83
Mississippi River	1.02	1.01	0.84	0.83	0.76	0.92	0.59	0.79	0.82	0.66	0.82
Pearl River	-	-	-	-	0.80	-	-	-	-	-	0.80
Calcasieu River	0.80	0.90	0.84	0.81	0.79	0.84	0.66	0.78	0.78	0.76	0.80
All Basins	**1.03**	**1.15**	**1.00**	**0.99**	**0.97**	**1.02**	**0.78**	**0.96**	**0.99**	**0.83**	**0.97**
Percent of All Fishing Areas	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
Grids											
Grid 15	1.57	0.96	1.45	0.96	1.19	6.00	-	1.26	0.50	1.73	1.74
Grid 12	1.80	1.45	-	-	-	-	-	-	-	-	1.63

Continue on next page.

Table B.12 Average Real Dockside Prices of Crabs by LDWF Trip Ticket Basin and NMFS Grid, 2000 – 2009 (Continued)

	Average Real Dockside Prices of Crabs (in 2005 $)										
Grids	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Grid 16	-	0.55	1.51	1.60	-	1.41	1.42	1.86	1.47	1.45	1.41
Grid 14	1.20	1.29	1.22	0.58	2.50	1.19	0.63	0.93	1.33	0.45	1.13
Grid 13	1.03	1.19	1.13	1.56	0.36	1.15	0.87	-	0.97	1.01	1.03
Grid 17	-	-	-	-	-	-	0.96	-	0.80	-	0.88
All Grids	**1.23**	**1.20**	**1.35**	**1.50**	**2.46**	**1.25**	**0.80**	**1.27**	**0.91**	**1.27**	**1.32**
Percent of All Fishing Areas	**119.4%**	**104.3%**	**135.0%**	**151.5%**	**253.6%**	**122.5%**	**102.6%**	**132.3%**	**91.9%**	**153.0%**	**136.6%**
Unspecified	0.99	1.21	2.67	1.06	0.49	2.40	2.58	0.87	.	0.85	1.46
Percent of All Fishing Areas	96.1%	105.2%	267.0%	107.1%	50.5%	235.3%	330.8%	90.6%	0.0%	102.4%	138.5%
All Fishing Areas	**1.03**	**1.15**	**1**	**0.99**	**0.97**	**1.02**	**0.78**	**0.96**	**0.99**	**0.83**	**0.97**



Source: Appendix Table B.12. Real prices are in 2005 dollar. An outlier ($6.00) occurring in 2005 was removed for Grid 15.

Figure B.3 Average Real Dockside Prices of Crabs by LDWF Trip Ticket Basin and NMFS Grid, 2000 – 2009

Table B.13 Nominal Dockside Values of Crabs by LDWF Trip Ticket Basin and NMFS Grid, 2000 – 2009

	Nominal Dockside Values of Crabs (in $)										
Basin	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Terrebonne	9,835,356	12,260,243	9,680,237	9,962,867	7,700,520	7,713,424	6,578,808	7,658,416	8,802,553	8,720,209	8,891,263
Lake Pontchartrain	6,105,483	5,682,877	7,166,548	9,749,482	8,438,653	6,118,480	7,772,343	10,168,593	9,974,100	12,135,741	8,331,230
Barataria	4,853,940	4,928,840	6,440,713	5,955,498	6,278,214	6,468,054	7,310,774	7,396,966	6,417,858	6,091,732	6,214,259
Vermilion-Teche River	4,659,591	3,721,882	3,172,473	3,402,038	3,267,031	3,223,866	4,433,979	3,723,715	3,500,263	4,675,540	3,778,038
Atchafalaya River	4,462,049	2,509,475	1,750,650	2,222,093	1,521,189	1,777,819	2,355,892	1,693,075	1,578,937	1,261,456	2,113,264
Calcasieu River	840,380	671,524	950,835	827,034	904,712	796,973	1,196,947	2,266,692	1,930,805	2,106,699	1,249,260
Mississippi River	3,112,196	1,703,901	1,008,136	1,067,193	1,061,339	816,286	1,259,574	813,734	608,863	600,520	1,205,174
Mermentau River	365,117	419,628	377,207	419,352	416,581	374,891	1,256,312	1,780,385	1,513,667	1,598,612	852,175
Sabine River	200,303	129,764	112,972	55,511	73,271	87,618	65,966	84,359	13,508	0	91,475
Pearl River	0	0	0	0	204	0	0	0	0	0	204
Basin Subtotal	**34,434,415**	**32,028,134**	**30,659,771**	**33,661,068**	**29,661,714**	**27,377,411**	**32,230,595**	**35,585,935**	**34,340,554**	**37,190,509**	**32,717,011**
Percent of All Fishing Areas	**99.6%**	**99.9%**	**99.9%**	**100.0%**	**99.9%**	**99.9%**	**99.7%**	**100.0%**	**99.9%**	**99.9%**	**99.9%**
Grids											
Grid 14	26,872	7,605	7,578	348	43,200	21,260	9,448	1,090	5,481	25	12,291
Grid 13	911	441	8,303	3,305	164	4,323	31,170	0	13,218	22,598	9,381

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Table B.13 Nominal Dockside Values of Crabs by LDWF Trip Ticket Basin and NMFS Grid, 2000 – 2009 (Continued)

	Nominal Dockside Values of Crabs (in $)										
Basin	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Grid 15	2,352	5,946	13,526	196	119	30	0	912	7,709	3,836	3,847
Grid 16	0	790	10,812	3,609	0	1,910	416	4,080	120	1,680	2,927
Grid 17	0	0	0	0	0	0	4,545	0	1,141	0	2,843
Grid 12	416	1,436	0	0	0	0	0	0	0	0	926
Grid Subtotal	**30,551**	**16,218**	**40,219**	**7,458**	**43,483**	**27,523**	**45,579**	**6,082**	**27,669**	**28,139**	**27,292**
Percent of All Fishing Areas	**0.1%**	**0.1%**	**0.1%**	**0.0%**	**0.1%**	**0.1%**	**0.1%**	**0.0%**	**0.1%**	**0.1%**	**0.1%**
Unspecified	109,952	27,849	2,095	586	832	258	50,984	4,056	0	5,815	22,492
Percent of All Fishing Areas	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.1%
All Fishing Areas	**34,574,917**	**32,072,199**	**30,702,086**	**33,669,112**	**29,706,028**	**27,405,193**	**32,327,157**	**35,596,074**	**34,368,222**	**37,224,463**	**32,764,545**

Table B.14 Real Dockside Values of Crabs by LDWF Trip Ticket Basin and NMFS Grid, 2000 – 2009

	Real Dockside Values of Crab (in 2005 Dollar)										
Basin	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Terrebonne	11,050,962	13,472,794	10,521,997	10,598,795	7,938,681	7,713,424	6,387,192	7,224,920	8,075,736	7,927,463	9,091,196
Lake Pontchartrain	6,860,094	6,244,920	7,789,726	10,371,789	8,699,643	6,118,480	7,545,964	9,593,012	9,150,550	11,032,491	8,340,667
Barataria	5,453,865	5,416,308	7,000,775	6,335,636	6,472,386	6,468,054	7,097,839	6,978,270	5,887,943	5,537,938	6,264,901
Vermilion-Teche River	5,235,495	4,089,980	3,448,341	3,619,190	3,368,073	3,223,866	4,304,834	3,512,939	3,211,250	4,250,491	3,826,446
Atchafalaya River	5,013,538	2,757,664	1,902,880	2,363,928	1,568,237	1,777,819	2,287,274	1,597,241	1,448,566	1,146,779	2,186,393
Mississippi River	3,496,849	1,872,418	1,095,800	1,135,312	1,094,164	816,286	1,222,887	767,674	558,590	545,928	1,260,591
Calcasieu River	944,247	737,938	1,033,517	879,823	932,693	796,973	1,162,085	2,138,389	1,771,381	1,915,181	1,231,223
Mermentau River	410,244	461,130	410,008	446,119	429,465	374,891	1,219,721	1,679,608	1,388,685	1,453,283	827,315
Sabine River	225,059	142,598	122,795	59,054	75,537	87,618	64,045	79,584	12,393	0	96,520
Pearl River	0	0	0	0	210	0	0	0	0	0	210
Basin Subtotal	**38,690,353**	**35,195,750**	**33,325,839**	**35,809,646**	**30,579,089**	**27,377,411**	**31,291,841**	**33,571,637**	**31,505,094**	**33,809,554**	**33,115,621**
Percent of All Fishing Areas	**99.6%**	**99.9%**	**99.9%**	**100.0%**	**99.9%**	**99.9%**	**99.7%**	**100.0%**	**99.9%**	**99.9%**	**99.9%**
Grids											
Grid 14	30,193	8,357	8,237	371	44,536	21,260	9,173	1,028	5,028	23	12,821
Grid 13	1,023	485	9,025	3,515	169	4,323	30,262	0	12,127	20,543	8,147

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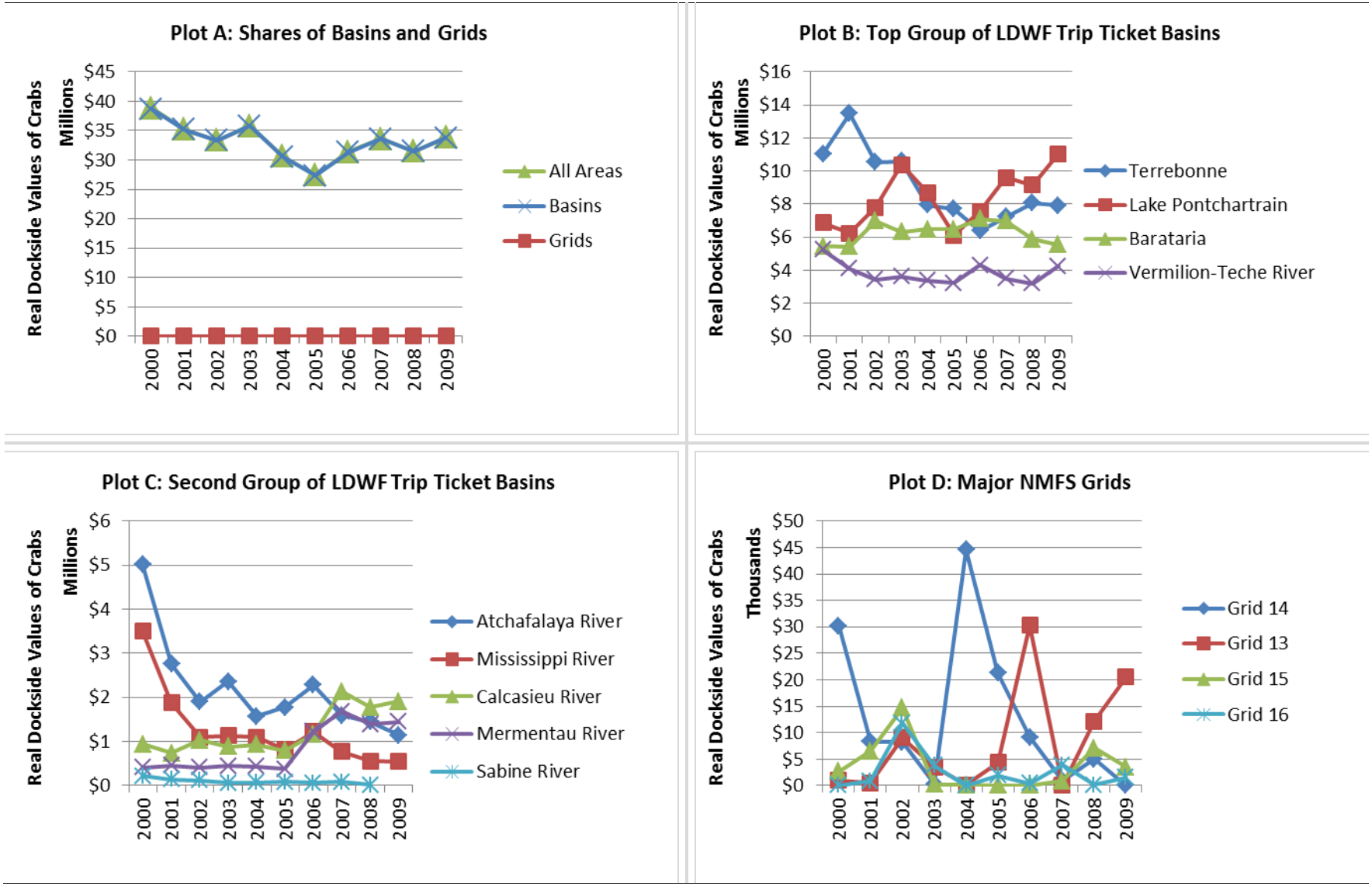
Table B.14 Real Dockside Values of Crab by LDWF Trip Ticket Basin and NMFS Grid, 2000 – 2009 (Continued)

	Real Dockside Values of Crab (in 2005 Dollar)										
Basin	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Grid 15	2,642	6,534	14,702	209	123	30	0	860	7,072	3,487	3,566
Grid 17	0	0	0	0	0	0	4,412	0	1,047	0	2,730
Grid 16	0	868	11,752	3,839	0	1,910	404	3,849	110	1,527	2,426
Grid 12	467	1,577	0	0	0	0	0	0	0	0	1,022
Grid Subtotal	**34,325**	**17,821**	**43,716**	**7,934**	**44,828**	**27,523**	**44,251**	**5,737**	**25,384**	**25,580**	**27,710**
Percent of All Fishing Areas	**0.1%**	**0.1%**	**0.1%**	**0.0%**	**0.1%**	**0.1%**	**0.1%**	**0.0%**	**0.1%**	**0.1%**	**0.1%**
Unspecified	122,889	30,206	1,795	544	857	258	49,499	3,827	0	5,287	23,907
Percent of All Fishing Areas	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.1%
All Fishing Areas	**38,847,569**	**35,243,778**	**33,371,350**	**35,818,124**	**30,624,772**	**27,405,193**	**31,385,590**	**33,581,202**	**31,530,479**	**33,840,421**	**33,164,848**



Source: Appendix Table B.14. Real values are in 2005 dollar.

Figure B.4 Real Dockside Values of Crabs by LDWF Trip Ticket Basin and NMFS Grid, 2000 – 2009

Table B.15 Crab Landings by Market Description, 2000 – 2009

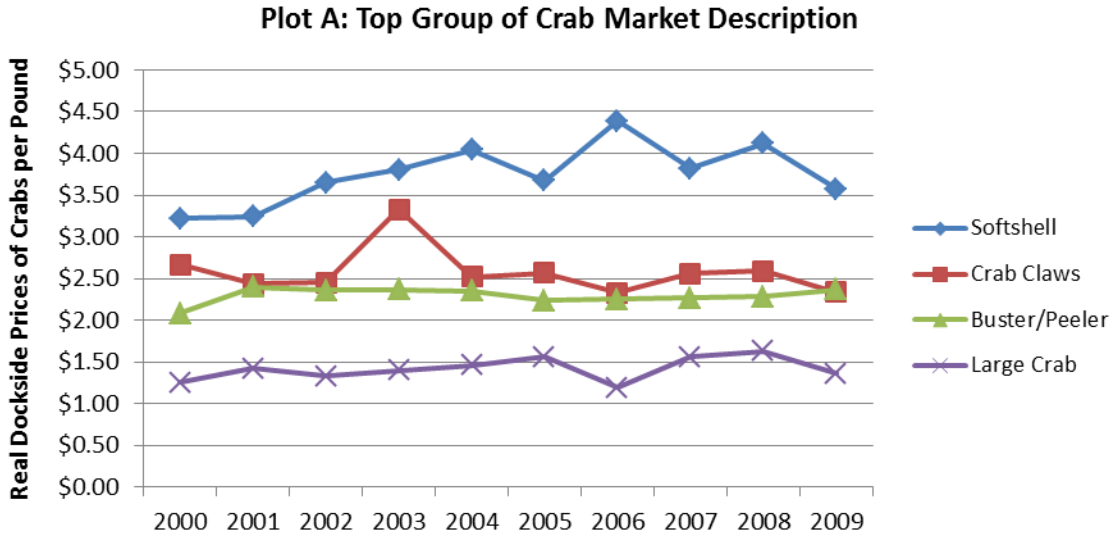
	Crab Landings (in Lbs.)										
Size Category	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Small Crab	12,389,248	10,049,521	15,155,575	14,079,425	11,413,988	9,259,583	11,350,991	11,610,163	11,508,384	12,698,589	11,951,547
Medium Crab	20,494,606	15,286,177	15,103,346	14,012,591	14,811,785	12,667,102	21,511,367	16,113,710	13,837,810	19,011,762	16,285,026
Large Crab	8,113,202	6,189,296	7,429,904	8,515,158	7,523,930	6,747,980	11,501,597	8,693,585	7,125,393	9,177,146	8,101,719
Factory Blue Crab	1,848,140	2,271,551	4,205,575	4,511,202	3,669,962	4,198,068	3,302,353	4,325,441	6,666,903	7,771,302	4,277,050
Male Crab	51,751	413,968	277,037	118,592	80,967	7,950	6,017	8,019	2,618	25,938	99,286
Female Crab	39,608	116,776	266,987	403,038	545,564	632,831	634,161	545,131	580,167	908,719	467,298
Buster/Peeler	544,573	344,177	327,234	337,501	293,214	186,467	118,573	192,277	96,863	174,636	261,552
Softshell	56,915	57,665	44,885	46,850	34,951	33,698	23,826	12,402	7,017	37,022	35,523
Crab Claws	68,415	35,295	13,683	12,705	10,893	8,089	3,369	12,852	15,854	10,743	19,190
Unspecified	8,491,987	7,061,545	7,307,928	6,064,879	6,027,737	4,374,978	5,017,840	4,464,594	4,490,184	3,172,615	5,647,429
All Categories	**52,098,446**	**41,825,970**	**50,132,153**	**48,101,941**	**44,412,992**	**38,116,745**	**53,470,094**	**45,978,174**	**44,331,193**	**52,988,471**	**47,145,618**

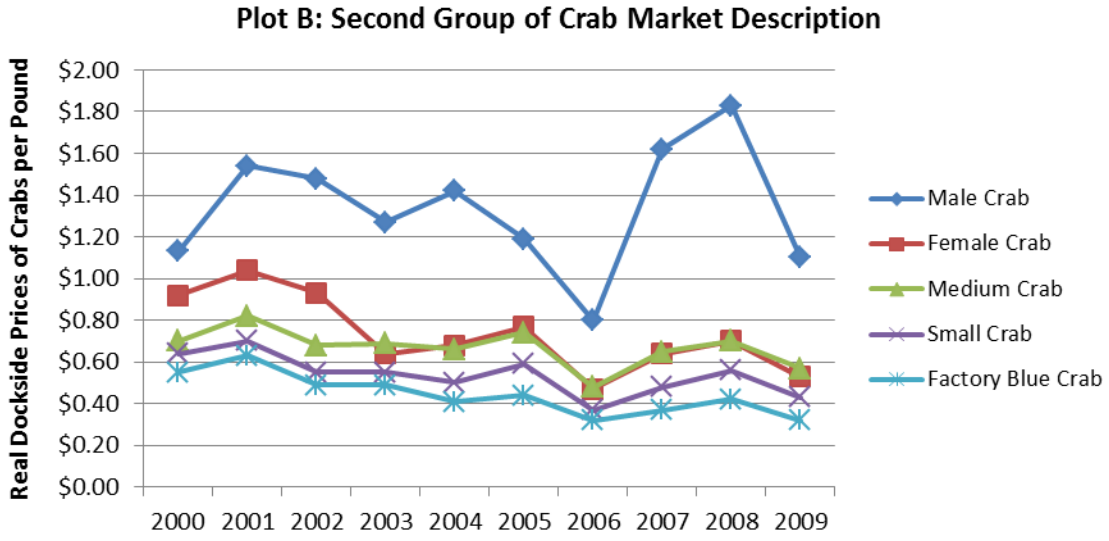
Table B.16 Average Nominal Dockside Prices per Pound of Crabs by Market Description, 2000 – 2009

	Average Nominal Dockside Prices of Crabs (in $)										
Size Category	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Small Crab	0.57	0.63	0.51	0.52	0.49	0.59	0.38	0.51	0.61	0.47	0.53
Medium Crab	0.62	0.74	0.62	0.65	0.64	0.74	0.50	0.69	0.76	0.62	0.66
Large Crab	1.11	1.29	1.23	1.32	1.42	1.56	1.22	1.66	1.78	1.50	1.41
Factory Blue Crab	0.49	0.57	0.45	0.46	0.40	0.44	0.33	0.39	0.46	0.35	0.43
Male Crab	1.00	1.40	1.36	1.19	1.37	1.19	0.83	1.72	1.99	1.21	1.33
Female Crab	0.82	0.95	0.86	0.60	0.66	0.77	0.48	0.68	0.77	0.58	0.72
Buster/Peeler	1.86	2.18	2.17	2.23	2.28	2.24	2.32	2.40	2.49	2.61	2.28
Softshell	2.87	2.95	3.36	3.57	3.92	3.67	4.52	4.05	4.49	3.92	3.73
Crab Claws	2.38	2.22	2.25	3.13	2.45	2.57	2.40	2.71	2.82	2.57	2.55
Unspecified	0.70	0.81	0.68	0.63	0.66	0.80	0.70	0.95	0.97	0.86	0.78
All Categories	**0.92**	**1.04**	**0.92**	**0.93**	**0.94**	**1.02**	**0.80**	**1.01**	**1.07**	**0.91**	**0.96**

Table B.17 Average Real Dockside Prices per Pound of Crabs by Market Description, 2000 – 2009

	Average Real Dockside Prices of Crabs (in 2005 Dollar)										
Size Category	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Small Crab	0.64	0.70	0.55	0.55	0.50	0.59	0.37	0.48	0.56	0.43	0.54
Medium Crab	0.70	0.82	0.68	0.69	0.66	0.74	0.48	0.65	0.70	0.57	0.67
Large Crab	1.25	1.42	1.33	1.40	1.46	1.56	1.19	1.56	1.63	1.36	1.42
Factory Blue Crab	0.55	0.63	0.49	0.49	0.41	0.44	0.32	0.37	0.42	0.32	0.44
Male Crab	1.13	1.54	1.48	1.27	1.42	1.19	0.80	1.62	1.83	1.10	1.34
Female Crab	0.92	1.04	0.93	0.64	0.68	0.77	0.47	0.64	0.70	0.53	0.73
Buster/Peeler	2.08	2.40	2.36	2.37	2.35	2.24	2.25	2.27	2.28	2.37	2.30
Softshell	3.22	3.24	3.65	3.80	4.04	3.67	4.39	3.82	4.12	3.57	3.75
Crab Claws	2.67	2.44	2.45	3.33	2.52	2.57	2.33	2.56	2.59	2.34	2.58
Unspecified	0.79	0.90	0.74	0.67	0.68	0.80	0.68	0.90	0.89	0.78	0.78
All Categories	**1.03**	**1.15**	**1.00**	**0.99**	**0.97**	**1.02**	**0.78**	**0.96**	**0.99**	**0.83**	**0.97**





Source: Appendix Table B.17. Real prices are in 2005 dollar.

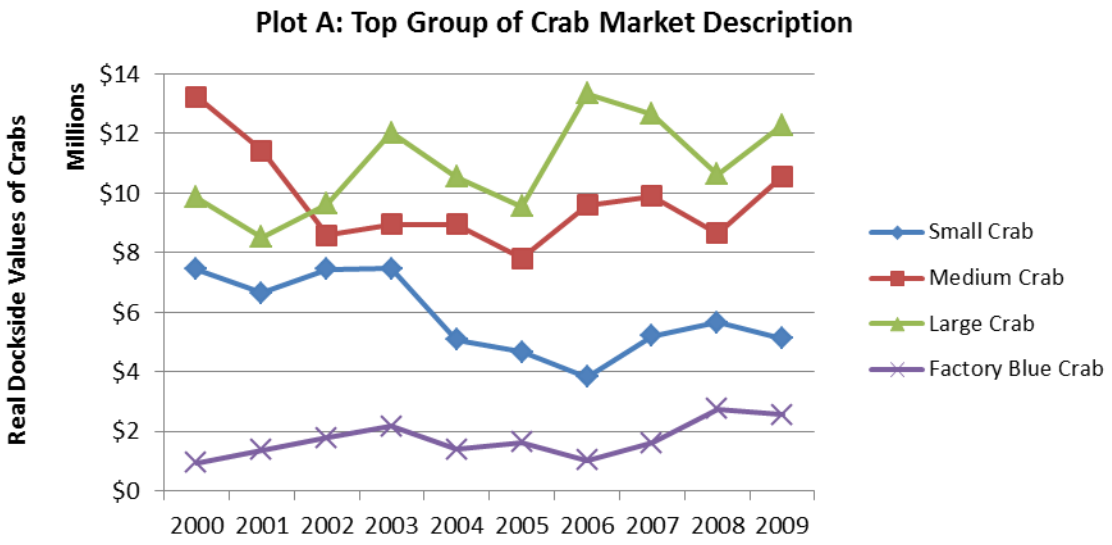
Figure B.5 Average Real Dockside Prices per Pound of Crabs by Market Description, 2000 – 2009

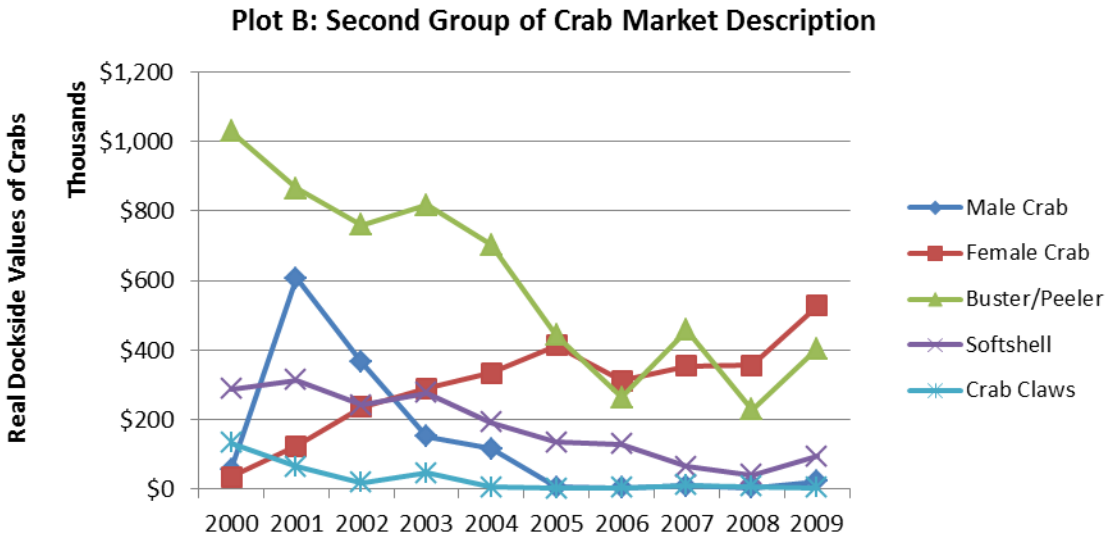
Table B.18 Nominal Dockside Values of Crabs by Market Description, 2000 – 2009

	Nominal Dockside Values of Crabs (in $)										
Size Category	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Small Crab	6,633,723	6,060,341	6,857,202	7,019,041	4,922,793	4,670,678	3,944,391	5,523,381	6,158,596	5,633,432	5,742,358
Medium Crab	11,779,397	10,406,471	7,899,137	8,419,506	8,691,501	7,803,061	9,884,032	10,487,266	9,437,367	11,618,688	9,642,643
Large Crab	8,773,252	7,751,816	8,865,063	11,297,553	10,226,447	9,559,141	13,730,398	13,412,007	11,589,002	13,511,225	10,871,590
Factory Blue Crab	835,387	1,254,110	1,651,787	2,046,870	1,367,499	1,632,111	1,076,006	1,715,984	2,996,864	2,813,950	1,739,057
Male Crab	50,479	552,620	336,562	142,349	112,438	6,474	4,137	9,042	3,414	25,507	124,302
Female Crab	30,713	111,860	216,761	272,188	324,434	412,441	320,617	375,001	387,529	580,324	303,187
Buster/Peeler	916,572	786,552	699,579	767,595	680,892	443,533	272,117	485,793	250,251	443,522	574,641
Softshell	256,712	284,629	223,024	259,794	186,659	134,021	133,499	68,686	43,833	103,261	169,412
Crab Claws	117,553	58,693	17,643	43,224	4,803	2,554	4,346	11,923	8,910	5,251	27,490
Unspecified	5,181,130	4,805,107	3,935,328	3,400,990	3,188,562	2,741,179	2,957,613	3,506,990	3,492,457	2,489,303	3,569,866
All Categories	**34,574,917**	**32,072,199**	**30,702,086**	**33,669,112**	**29,706,028**	**27,405,193**	**32,327,157**	**35,596,074**	**34,368,222**	**37,224,463**	**32,764,545**

Table B.19 Real Dockside Values of Crabs by Market Description, 2000 – 2009

	Real Dockside Values of Crabs (in 2005 Dollar)										
Size Category	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Small Crab	7,453,621	6,659,716	7,453,480	7,467,065	5,075,044	4,670,678	3,829,506	5,210,736	5,650,088	5,121,301	5,859,124
Medium Crab	13,235,277	11,435,683	8,586,019	8,956,922	8,960,310	7,803,061	9,596,148	9,893,647	8,658,135	10,562,444	9,768,765
Large Crab	9,857,586	8,518,479	9,635,938	12,018,673	10,542,728	9,559,141	13,330,484	12,652,836	10,632,112	12,282,932	10,903,091
Factory Blue Crab	938,637	1,378,143	1,795,420	2,177,522	1,409,793	1,632,111	1,044,666	1,618,853	2,749,416	2,558,136	1,730,270
Male Crab	56,718	607,274	365,828	151,435	115,916	6,474	4,017	8,531	3,132	23,188	134,251
Female Crab	34,509	122,923	235,610	289,562	334,468	412,441	311,279	353,775	355,531	527,567	297,767
Buster/Peeler	1,029,857	864,343	760,412	816,590	701,951	443,533	264,191	458,295	229,588	403,201	597,196
Softshell	288,441	312,779	242,417	276,377	192,432	134,021	129,610	64,799	40,214	93,874	177,496
Crab Claws	132,082	64,497	19,177	45,983	4,952	2,554	4,220	11,248	8,174	4,774	29,766
Unspecified	5,821,494	5,280,338	4,277,530	3,618,075	3,287,177	2,741,179	2,871,469	3,308,481	3,204,089	2,263,003	3,667,284
All Categories	**38,848,221**	**35,244,175**	**33,371,832**	**35,818,204**	**30,624,772**	**27,405,193**	**31,385,590**	**33,581,202**	**31,530,479**	**33,840,421**	**33,165,009**





Source: Appendix Table B.19. Real values are in 2005 dollar.

Figure B.6 Real Dockside Values per Pound of Crabs by Market Description, 2000 – 2009

Table B.20 Average Real Dockside Prices and Dockside Values of Crabs by Landing Condition, 2000 – 2009

Landings Condition	Average Real Dockside Prices of Crabs (in 2005 Dollar)										
	2000	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Peeled or Meat	0.19	0.18	-	9.04	0.21	-	-	-	1.83	-	2.29
Gutted & Headed	1.09	0.95	1.08	1.08	1.03	1.13	0.80	1.23	1.07	0.86	1.03
Pieces or Chunks	2.37	2.02	1.05	3.96	4.27	3.00	-	2.33	3.48	2.70	2.80
Whole or Round	1.03	1.15	1.00	0.99	0.97	1.02	0.78	0.96	0.98	0.83	0.97
All Conditions	**1.03**	**1.15**	**1.00**	**0.99**	**0.97**	**1.02**	**0.78**	**0.96**	**0.99**	**0.83**	**0.97**
	Real Dockside Values of Crabs (in 2005 Dollar)										
Peeled or Meat	815	1,511	0	122	430	0	0	0.	121	0	600
Gutted & Headed	25,483	15,213	12,989	13,995	19,728	5,091	343	8,767	8,611	2,281	11,250
Pieces or Chunks	1,886	4,531	197	9,641	1,110	48	0	2,231	2,522	1,832	2,666
Whole or Round	38,820,038	35,222,920	33,358,646	35,794,445	30,603,503	27,400,053	31,385,246	33,570,204	31,519,225	33,836,308	33,151,059
All Conditions	**38,848,221**	**35,244,175**	**33,371,832**	**35,818,204**	**30,624,772**	**27,405,193**	**31,385,590**	**33,581,202**	**31,530,479**	**33,840,421**	**33,165,009**

Appendix C - Crab Landings, Dockside Prices and Values per Effort

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Table C.1 Average Crab Landings per Fisherman by Species, 2000 – 2009

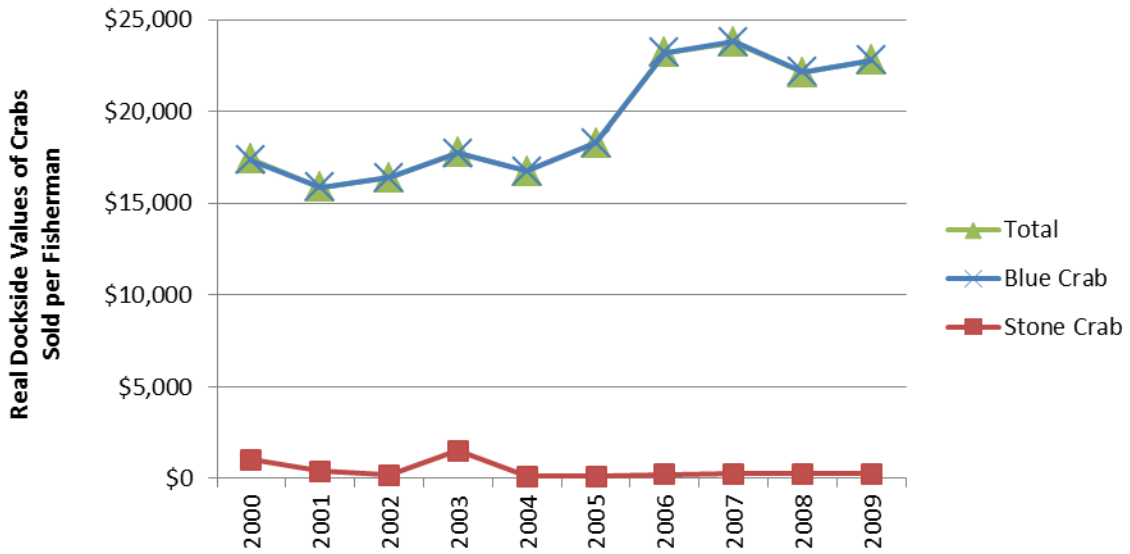
	Average Crab Landings per Fisherman (in Pounds)										
Species	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Blue Crab	23,329	18,880	24,619	23,842	24,308	25,428	39,548	32,583	31,152	35,705	27,939
Stone Crab	406	177	91	409	50	38	86	101	90	108	156
All Species	**23,331**	**18,849**	**24,611**	**23,848**	**24,296**	**25,411**	**39,549**	**32,562**	**31,131**	**35,707**	**27,930**

Table C.2 Average Nominal Dockside Values of Crabs per Fisherman by Species, 2000 – 2009

	Average Nominal Dockside Values of Crabs per Fisherman (in $)										
Species	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Blue Crab	15,447	14,460	15,071	16,671	16,257	18,281	23,908	25,219	24,147	25,081	19,454
Stone Crab	909	379	190	1,437	117	105	220	271	281	290	420
All Species	**15,484**	**14,453**	**15,072**	**16,693**	**16,251**	**18,270**	**23,911**	**25,210**	**24,135**	**25,084**	**19,456**

Table C.3 Average Real Dockside Values of Crabs per Fisherman by Species, 2000 – 2009

	Average Real Dockside Values of Crabs per Fisherman (in 2005 Dollar)										
Species	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Blue Crab	17,356	15,891	16,382	17,735	16,760	18,281	23,211	23,792	22,153	22,801	19,436
Stone Crab	1,021	417	206	1,529	120	105	214	256	257	264	439
All Species	**17,397**	**15,883**	**16,383**	**17,758**	**16,753**	**18,270**	**23,214**	**23,783**	**22,142**	**22,804**	**19,439**



Source: Appendix Table C.3. Real values are in 2005 dollar.

Figure C.1 Average Real Dockside Values of Crabs per Fisherman by Species, 2000 – 2009

Table C.4 Average Landings and Dockside Values of Crabs per Fishing Trip, 2000 – 2009

	Average Landings and Dockside Values of Crabs										
Measures	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Average Landings per Trip (Lbs.)	217	178	204	163	153	177	234	176	199	193	190
Average Nominal Values per Trip ($)	144	136	125	114	102	127	142	136	154	136	132
Average Real Values per Trip (in 2005 $)	162	150	136	122	105	127	137	128	141	123	133

Table C.5 Average Landings and Dockside Values of Crabs per Hour of Fishing Trip, 2000 – 2009

	Average Landings and Dockside Values of Crabs										
Measures	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Average Landings per Hour of Trip (Lbs.)	26	23	26	20	20	24	29	23	26	25	24
Average Nominal Values per Hour of Trip ($)	17	18	16	14	13	17	17	18	20	18	17
Average Real Values per Hour of Trip (in 2005 $)	19	19	17	15	14	17	17	17	18	16	17

Table C.6 Average Landings and Dockside Values of Crabs per Fishing Vessel, 2000 – 2009

	Average Landings and Dockside Values of Crabs										
Measures	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Average Landings per Vessel (Lbs.)	9,767	9,209	20,512	19,902	20,590	21,931	33,820	27,631	27,048	31,262	22,167
Average Nominal Values per Vessel ($)	6,482	7,061	12,562	13,930	13,772	15,768	20,447	21,392	20,969	21,961	15,435
Average Real Values per Vessel (in 2005 $)	7,283	7,760	13,655	14,819	14,198	15,768	19,852	20,181	19,238	19,965	15,272

Table C.7 Average Landings and Dockside Values of Crabs per Foot of Fishing Vessel, 2000 – 2009

	Average Landings and Dockside Values of Crabs										
Measures	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Average Landings per Foot (Lbs.)	2,481	1,992	2,343	2,207	2,037	1,757	2,475	2,149	2,034	2,345	2,182
Average Nominal Values per Foot ($)	1,646	1,527	1,435	1,544	1,363	1,263	1,497	1,663	1,577	1,647	1,516
Average Real Values per Foot (in 2005 $)	1,850	1,678	1,559	1,643	1,405	1,263	1,453	1,569	1,446	1,497	1,536

Table C.8 Crab Landings by Fishing Vessel Length Category, 2000 – 2009

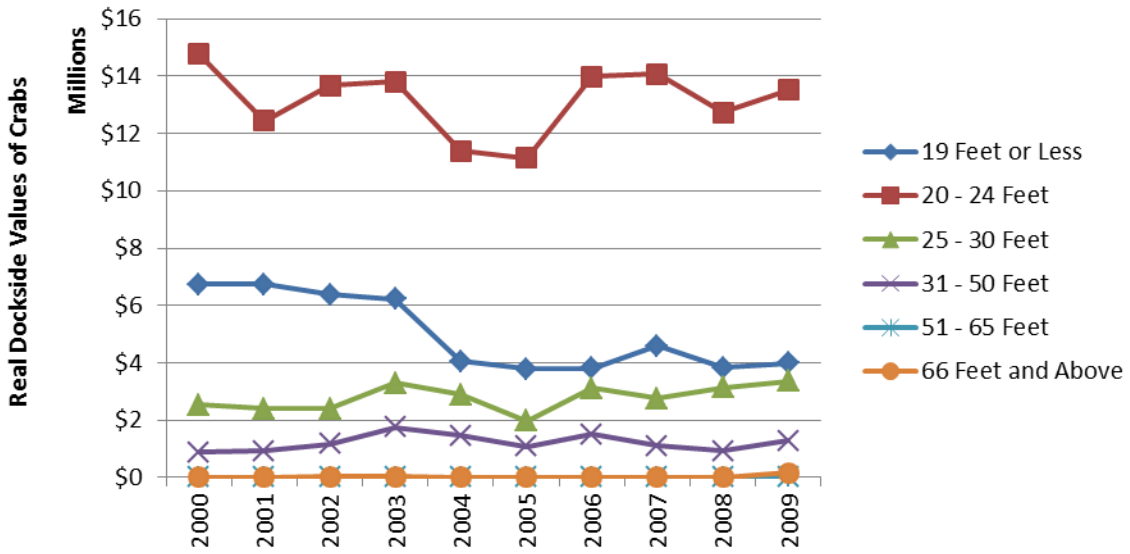
	Crab Landings (in Pounds)										
Vessel Length	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
19 Feet or Less	9,511,309	8,321,190	10,081,629	9,138,542	6,375,172	5,323,979	6,736,566	6,694,407	5,532,097	6,321,384	7,403,628
20 - 24 Feet	19,569,172	14,648,222	20,927,583	18,891,414	17,143,927	16,052,004	24,000,876	19,028,428	17,846,177	21,122,724	18,923,053
25 - 30 Feet	3,035,503	2,496,234	3,142,586	3,754,446	3,562,739	2,346,440	5,329,583	3,715,511	4,225,971	5,260,483	3,686,950
31 - 50 Feet	997,799	898,542	1,421,554	1,715,313	1,686,268	1,196,758	2,121,767	1,361,218	1,204,137	1,829,084	1,443,244
51 - 65 Feet	2,760	10,651	7,388	23,164	1,001	19,927	1,291	5,187	7,280	22,729	10,138
66 Feet and Above	0	118	39,469	43,805	8,905	694	840	0	1,593	262,559	44,748
Unspecified	18,981,903	15,451,014	14,511,943	14,535,257	15,634,979	13,176,943	15,279,172	15,173,423	15,513,939	18,169,509	15,642,808
All Vessel Lengths	**52,098,446**	**41,825,970**	**50,132,153**	**48,101,941**	**44,412,992**	**38,116,745**	**53,470,094**	**45,978,174**	**44,331,193**	**52,988,471**	**47,145,618**

Table C.9 Nominal Dockside Values of Crabs by Fishing Vessel Length Category, 2000 – 2009

	Nominal Dockside Values of Crabs ($)										
Vessel Length	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
19 Feet or Less	5,996,369	6,130,976	5,865,457	5,852,851	3,934,860	3,787,724	3,929,434	4,860,830	4,179,902	4,390,022	4,892,843
20 - 24 Feet	13,144,821	11,326,990	12,584,686	12,975,528	11,042,042	11,132,970	14,395,210	14,907,487	13,869,068	14,867,759	13,024,656
25 - 30 Feet	2,248,331	2,190,735	2,206,725	3,089,269	2,798,617	1,976,073	3,212,540	2,920,846	3,412,401	3,706,359	2,776,190
31 - 50 Feet	791,979	849,907	1,081,017	1,653,966	1,427,447	1,073,439	1,557,385	1,172,818	1,017,949	1,425,082	1,205,099
51 - 65 Feet	2,576	8,090	3,451	19,596	858	20,830	613	3,652	6,590	16,282	8,254
66 Feet and Above	0	53	29,066	32,239	8,915	1,281	840	0	1,155	174,546	31,012
Unspecified	12,390,842	11,565,449	8,931,683	10,045,662	10,493,290	9,412,876	9,231,135	11,730,441	11,881,158	12,644,412	10,832,695
All Vessel Lengths	**34,574,917**	**32,072,199**	**30,702,086**	**33,669,112**	**29,706,028**	**27,405,193**	**32,327,157**	**35,596,074**	**34,368,222**	**37,224,463**	**32,764,545**

Table C.10 Real Dockside Values of Crabs by Fishing Vessel Length Category, 2000 – 2009

	Real Dockside Values of Crabs (in 2005 Dollar)										
Vessel Length	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
19 Feet or Less	6,737,494	6,737,336	6,375,496	6,226,437	4,056,556	3,787,724	3,814,984	4,585,688	3,834,772	3,990,929	5,014,742
20 - 24 Feet	14,769,462	12,447,242	13,679,006	13,803,754	11,383,549	11,132,970	13,975,932	14,063,667	12,723,916	13,516,145	13,149,564
25 - 30 Feet	2,526,214	2,407,401	2,398,614	3,286,457	2,885,172	1,976,073	3,118,971	2,755,515	3,130,643	3,369,417	2,785,448
31 - 50 Feet	889,864	933,963	1,175,019	1,759,539	1,471,595	1,073,439	1,512,024	1,106,433	933,898	1,295,529	1,215,130
51 - 65 Feet	2,894	8,890	3,751	20,846	884	20,830	595	3,445	6,045	14,802	8,298
66 Feet and Above	0	58	31,593	34,297	9,191	1,281	816	0	1,060	158,678	29,622
Unspecified	13,922,294	12,709,285	9,708,352	10,686,874	10,817,825	9,412,876	8,962,267	11,066,454	10,900,145	11,494,920	10,968,129
All Vessel Lengths	**38,848,221**	**35,244,175**	**33,371,832**	**35,818,204**	**30,624,772**	**27,405,193**	**31,385,590**	**33,581,202**	**31,530,479**	**33,840,421**	**33,165,009**



Source: Appendix Table C.10. Real values are in 2005 dollar.

Figure C.2 Real Dockside Values of Crabs by Fishing Vessel Length Category, 2000 – 2009

Table C.11 Crab Landings from LDWF Basins and NMFS Grids by Gear Type, 2000 – 2009

	Crab Landings from LDWF Basins and NMFS Grids (in Pounds)										
Gear Type	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Pots & Traps, Crab	51,611,663	41,469,085	49,732,517	47,850,097	44,249,443	38,029,614	53,248,804	45,880,776	44,241,117	52,882,452	46,919,557
Other	486,783	356,885	399,637	251,845	163,550	87,131	221,290	97,399	90,076	106,019	226,062
All Gear	**52,098,446**	**41,825,970**	**50,132,153**	**48,101,941**	**44,412,992**	**38,116,745**	**53,470,094**	**45,978,174**	**44,331,193**	**52,988,471**	**47,145,618**

Note: "Other" includes skimmer nets, wire nets, shrimp otter trawl, trot lines, butterfly nets, etc.

Table C.12 Crab Landings from LDWF Basins by Gear Type, 2000 – 2009

	Landings of Crabs from LDWF Basins (in Pounds)										
Gear Type	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Pots & Traps, Crab	51,419,227	41,428,387	49,697,705	47,844,078	44,222,898	38,000,758	53,184,053	45,872,946	44,202,567	52,852,133	46,872,475
Other	484,711	348,132	395,435	251,845	161,564	85,630	219,322	96,519	89,552	103,958	223,667
All Gear (Basins)	**51,903,939**	**41,776,519**	**50,093,139**	**48,095,923**	**44,384,461**	**38,086,387**	**53,403,375**	**45,969,464**	**44,292,119**	**52,956,092**	**47,096,142**

Note: "Other" includes skimmer nets, wire nets, shrimp otter trawl, trot lines, butterfly nets, etc.

Table C.13 Crab Landings from NMFS Grids by Gear Type, 2000 – 2009

	Landings of Crabs from NMFS Grids (in Pounds)										
Gear Type	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Pots & Traps, Crab	28,079	9,297	33,006	5,603	26,545	28,749	57,940	3,075	38,550	24,703	25,555
Other	828	8,427	3,454	0	452	1,501	1,968	880	524	2,061	2,010
All Gear (Grids)	**28,907**	**17,723**	**36,460**	**5,603**	**26,997**	**30,250**	**59,908**	**3,955**	**39,074**	**26,764**	**27,564**

Note: "Other" is comprised mainly of shrimp otter trawl..

Table C.14 Nominal Dockside Values of Crabs from LDWF Basins and NMFS Grids by Gear Type, 2000 – 2009

	Nominal Dockside Values of Crabs from LDWF Basins and NMFS Grids (in $)										
Gear Type	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Pots & Traps, Crab	34,283,028	31,812,477	30,439,768	33,513,382	29,621,858	27,347,641	32,209,840	35,520,294	34,312,445	37,144,817	32,620,555
Other	291,888	259,725	262,317	155,730	84,171	57,551	117,317	75,782	55,778	79,646	143,991
All Gear	**34,574,917**	**32,072,199**	**30,702,086**	**33,669,112**	**29,706,028**	**27,405,193**	**32,327,157**	**35,596,074**	**34,368,222**	**37,224,463**	**32,764,545**

Note: "Other" includes skimmer nets, shrimp otter trawl, wire nets, trot lines, butterfly nets, etc.

Table C.15 Nominal Dockside Values of Crabs from LDWF Basins by Gear Type, 2000 – 2009

	Nominal Dockside Values of Crabs from LDWF Basins (in $)										
Gear Type	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Pots & Traps, Crab	34,143,639	31,774,133	30,400,661	33,505,338	29,578,610	27,321,252	32,115,008	35,511,284	34,285,550	37,114,223	32,574,970
Other	290,774	254,002	259,110	155,730	83,105	56,159	115,587	74,654	55,003	76,286	142,041
All Gear (Basins)	**34,434,414**	**32,028,133**	**30,659,772**	**33,661,068**	**29,661,714**	**27,377,411**	**32,230,595**	**35,585,935**	**34,340,553**	**37,190,509**	**32,717,010**

Note: "Other" includes skimmer nets, shrimp otter trawl, wire nets, trot lines, butterfly nets, etc.

Table C.16 Nominal Dockside Values of Crabs from NMFS Grids by Gear Type, 2000 – 2009

	Nominal Dockside Values of Crabs from NMFS Grids (in $)										
Gear Type	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Pots & Traps, Crab	30,090	10,891	37,536	7,458	43,249	26,131	43,849	4,954	26,895	24,779	25,583
Other	461	5,327	2,683	0	234	1,393	1,730	1,128	774	3,360	1,709
All Gear (Grids)	**30,551**	**16,218**	**40,219**	**7,458**	**43,483**	**27,523**	**45,579**	**6,082**	**27,669**	**28,139**	**27,292**

Note: "Other" is comprised mainly of shrimp otter trawl.

Table C.17 Real Dockside Values of Crabs from LDWF Basins and NMFS Grids by Gear Type, 2000 – 2009

	Real Dockside Values of Crabs from LDWF Basins and NMFS Grids (in 2005 Dollar)										
Gear Type	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Pots & Traps, Crab	38,520,256	34,958,766	33,086,705	35,652,534	30,537,998	27,347,641	31,271,689	33,509,711	31,479,307	33,768,016	33,013,262
Other	327,965	285,411	285,126	165,672	86,773	57,551	113,899	71,490	51,173	72,406	151,747
All Gear	**38,848,221**	**35,244,175**	**33,371,832**	**35,818,204**	**30,624,772**	**27,405,193**	**31,385,590**	**33,581,202**	**31,530,479**	**33,840,421**	**33,165,009**

Note: "Other" includes skimmer nets, shrimp otter trawl, wire nets, trot lines, butterfly nets, etc.

Table C.18 Real Dockside Values of Crabs from LDWF Basins by Gear Type, 2000 – 2009

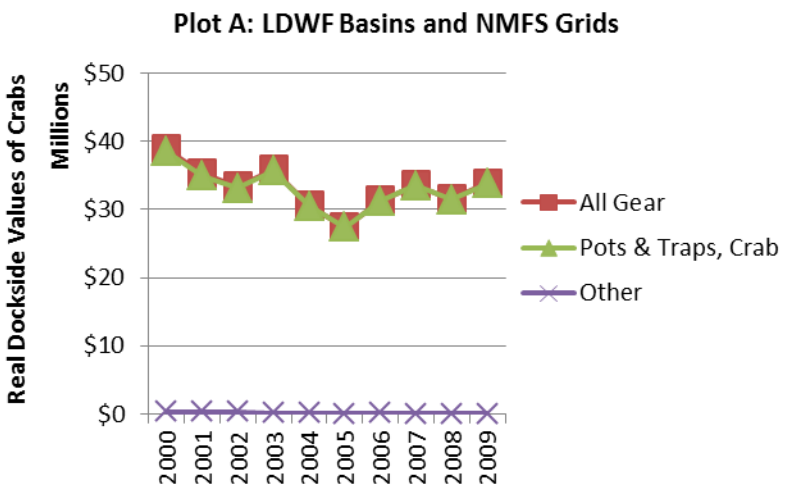
	Real Dockside Values of Crabs from LDWF Basins (in 2005 Dollar)										
Gear Type	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Pots & Traps, Crab	38,363,639	34,916,630	33,044,197	35,643,977	30,493,412	27,321,252	31,179,619	33,501,211	31,454,633	33,740,203	32,965,877
Other	326,715	279,122	281,640	165,672	85,676	56,159	112,220	70,426	50,463	69,352	149,745
All Gear (Basins)	**38,690,353**	**35,195,750**	**33,325,839**	**35,809,646**	**30,579,087**	**27,377,411**	**31,291,840**	**33,571,637**	**31,505,095**	**33,809,554**	**33,115,621**

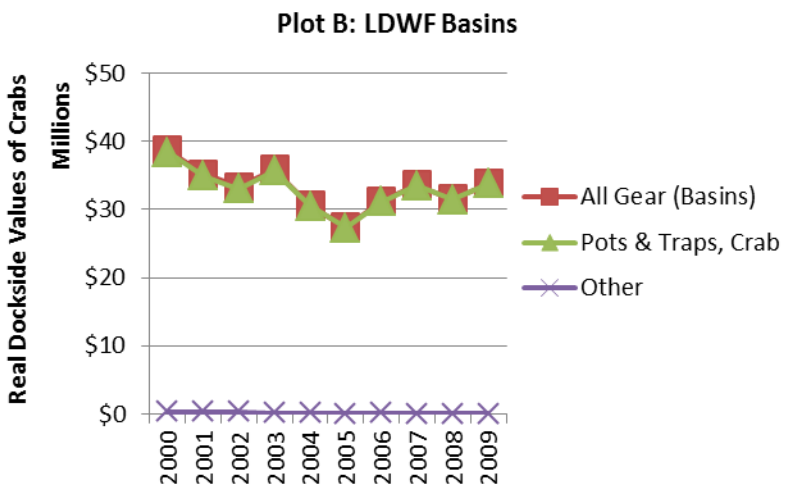
Note: "Other" includes skimmer nets, shrimp otter trawl, wire nets, trot lines, butterfly nets, etc.

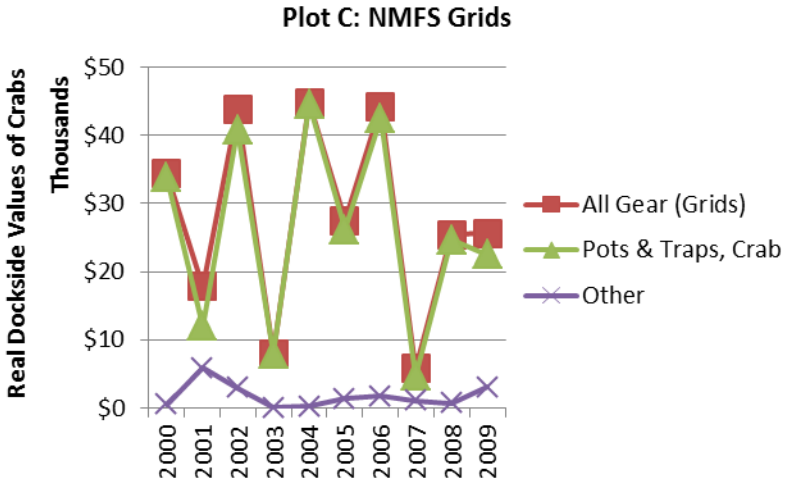
Table C.19 Real Dockside Values of Crabs from NMFS Grids by Gear Type, 2000 – 2009

	Real Dockside Values of Crabs from NMFS Grids (in 2005 Dollar)										
Gear Type	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Average**
Pots & Traps, Crab	33,809	11,968	40,800	7,934	44,586	26,131	42,571	4,674	24,674	22,526	25,967
Other	518	5,854	2,916	0	242	1,393	1,679	1,064	710	3,054	1,743
All Gear (Grids)	**34,326**	**17,822**	**43,716**	**7,934**	**44,827**	**27,523**	**44,251**	**5,738**	**25,384**	**25,580**	**27,710**

Note: "Other" is comprised mainly of shrimp otter trawl.







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Source: Appendix Tables C.17, C.18 and C.19. Real values are in 2005 dollar. **Note**: "Other" includes skimmer nets, wire nets, shrimp otter trawl, trot lines, butterfly nets, etc.

Figure C.3 Real Dockside Values of Crabs from LDWF Basins and NMFS Grids by Gear Type, 2000 – 2009

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Appendix D - Maps of Fishing Areas and Hurricane Tracks

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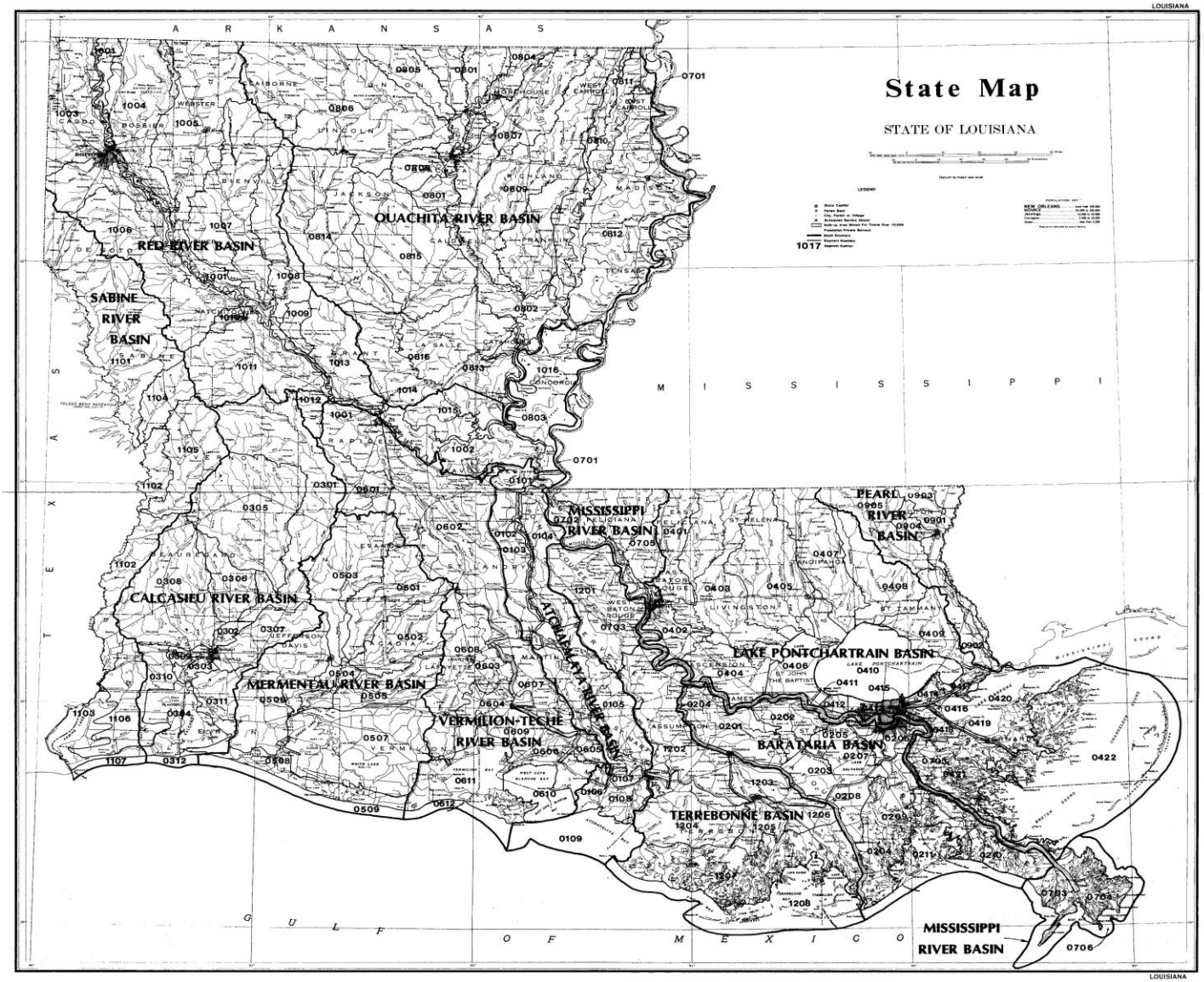


Figure D.1 Map of Louisiana by LDWF Trip Ticket Basin

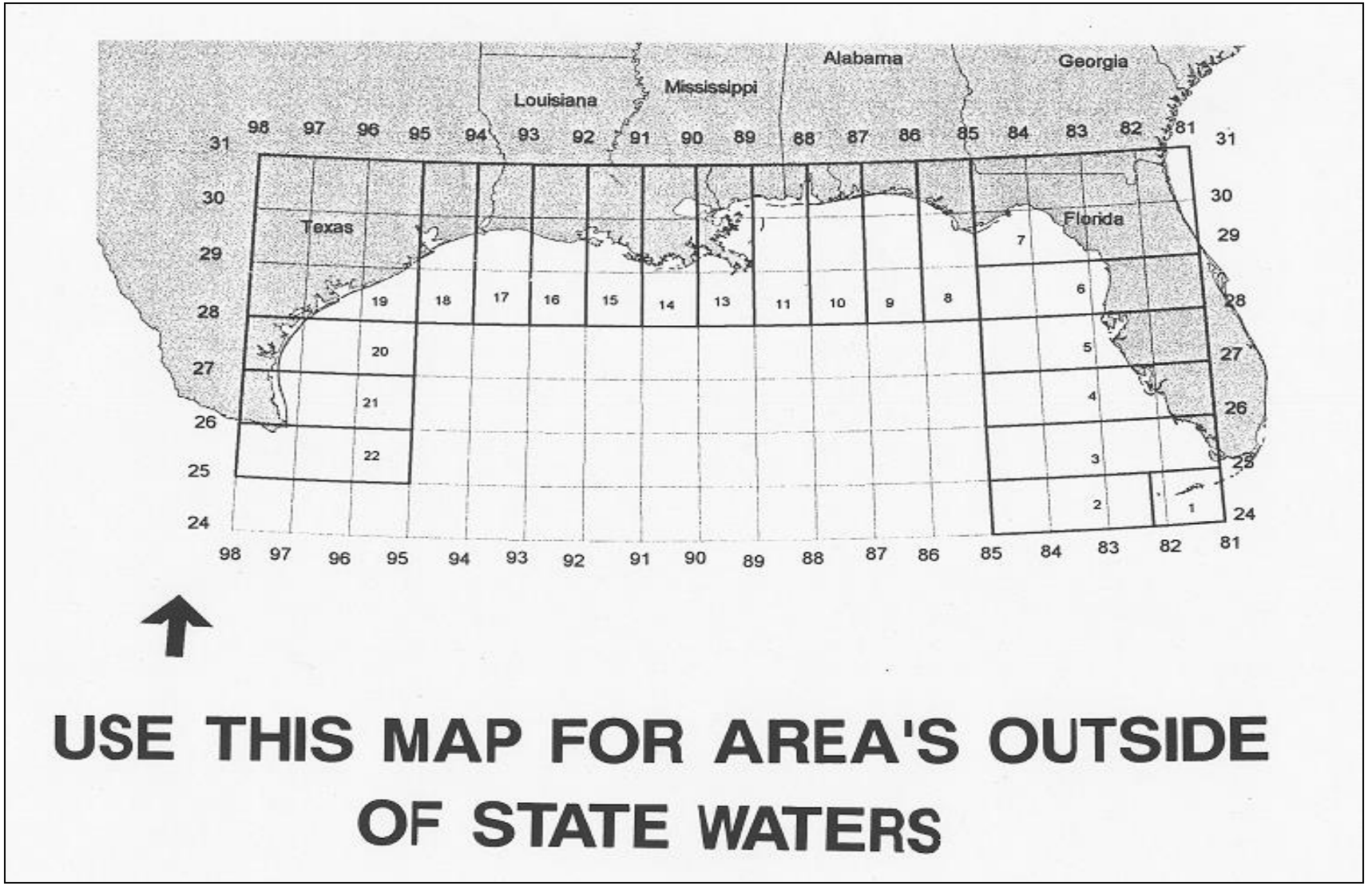
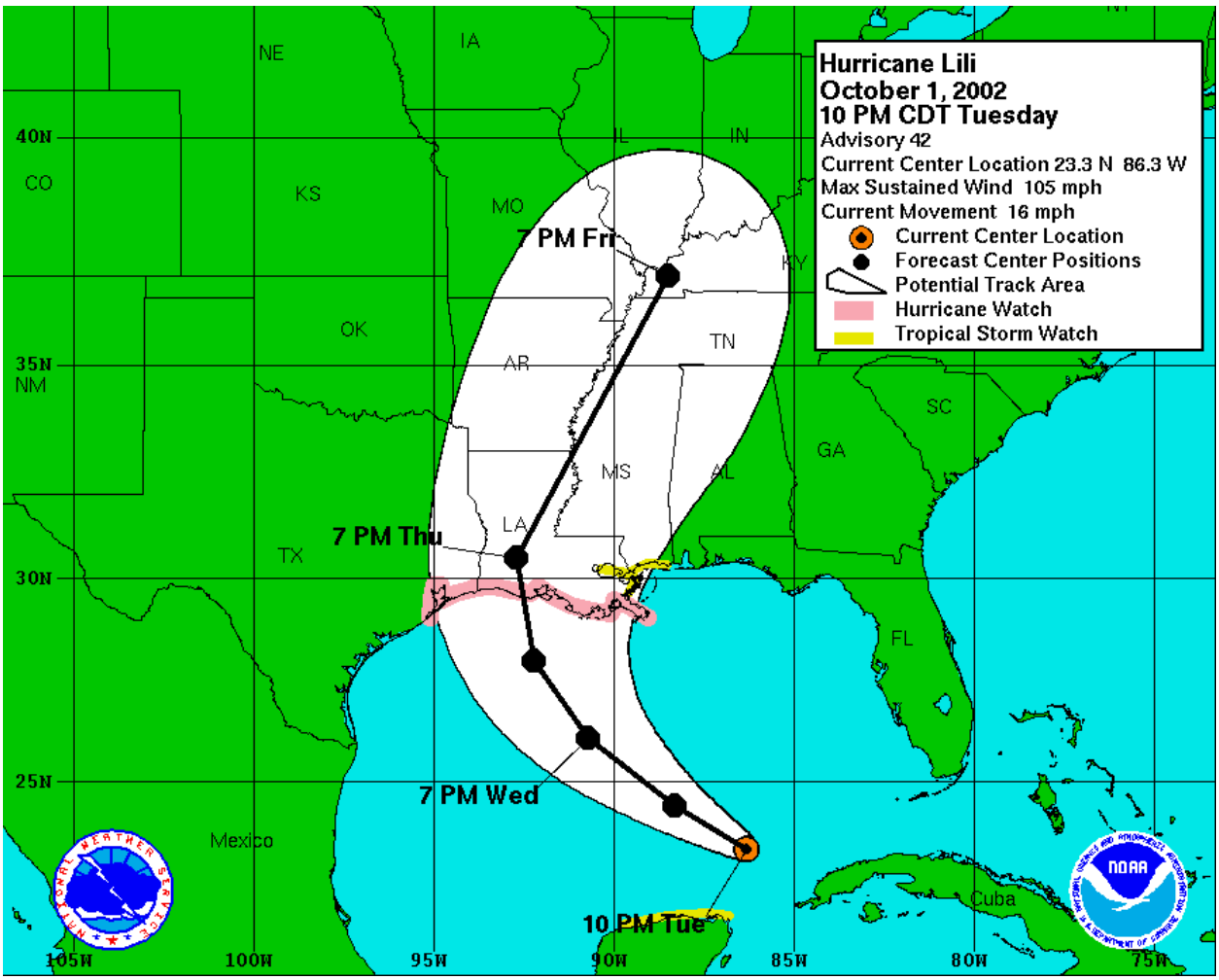
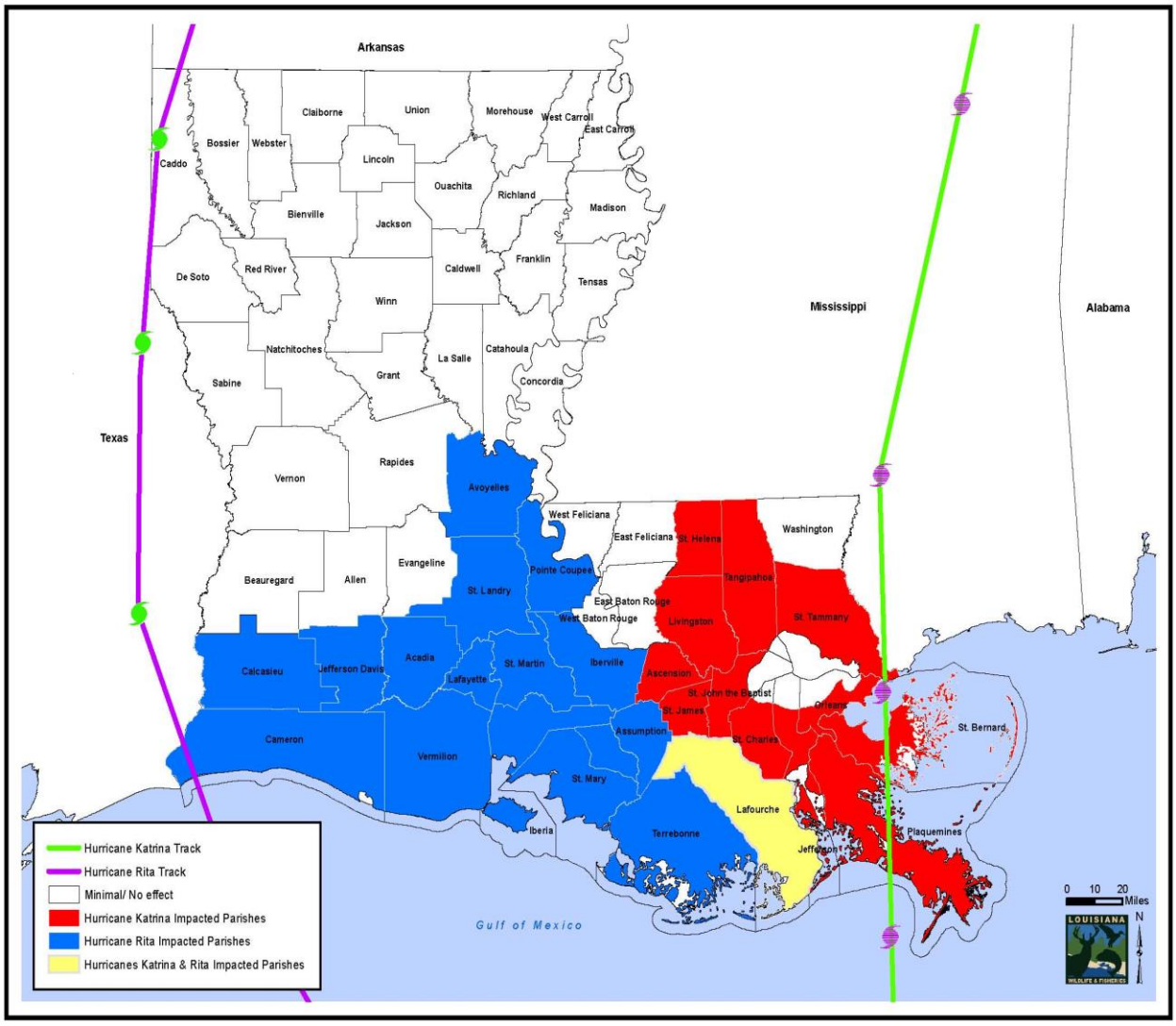


Figure D.2 Map of Fishing Locations by NMFS Grid



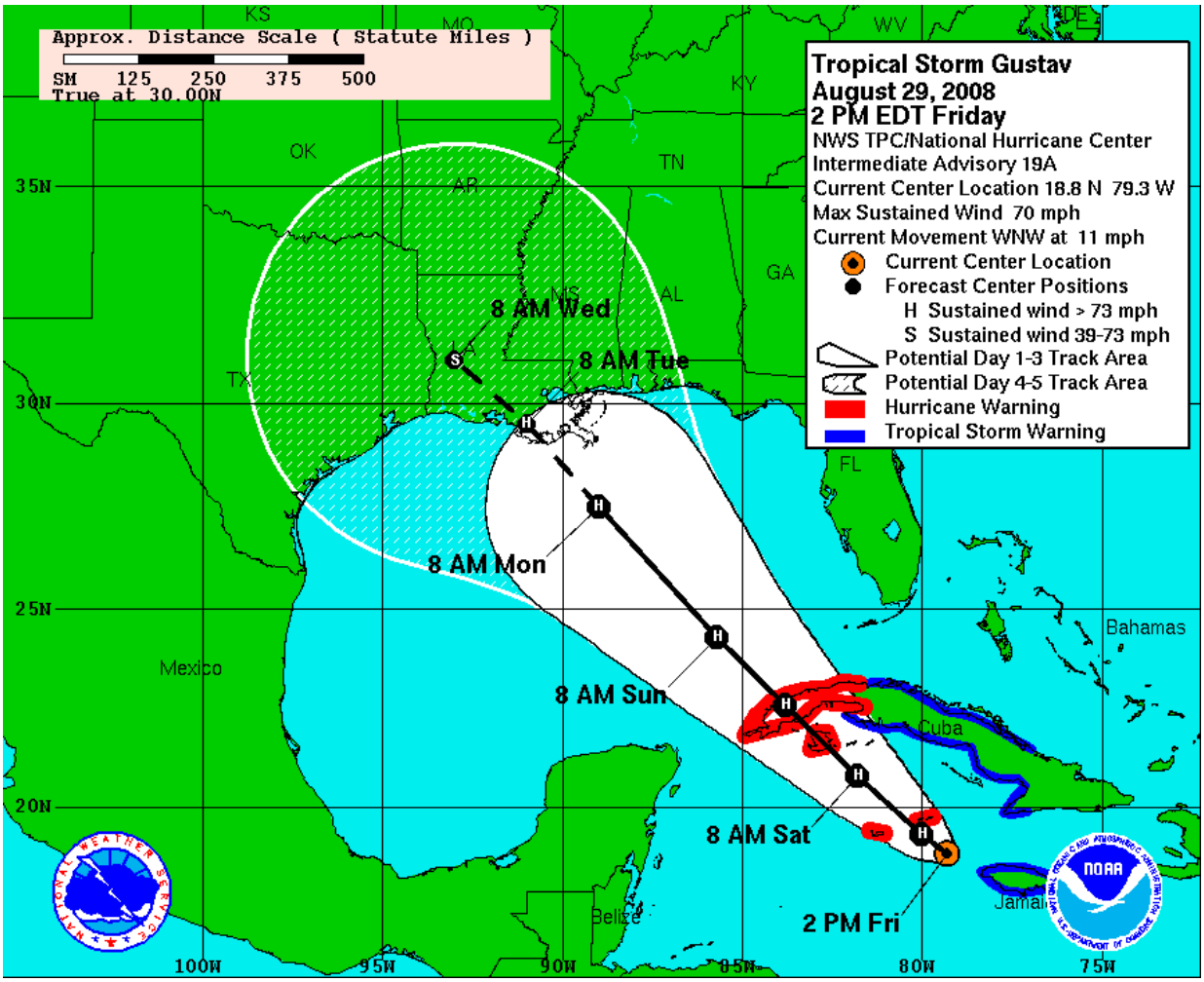
Source: National Hurricane Center, NOAA. Note that hurricane Lili was a category 1 hurricane.

Figure D.3 Track of Hurricane Lili in 2002



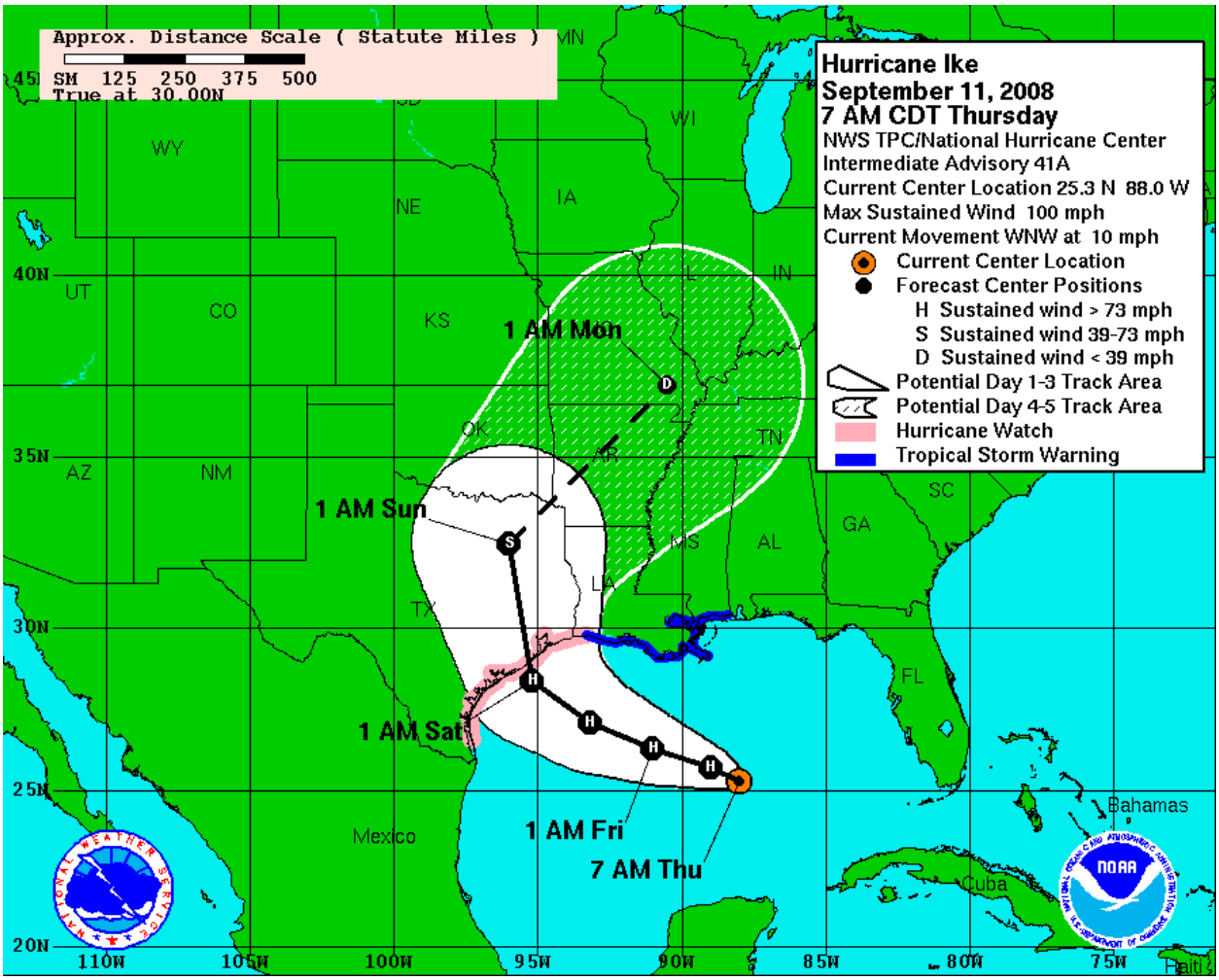
Source: S. Armand, Louisiana Department of Wildlife and Fisheries, LAGISDVD, ESRI, NOAA, Nov. 15, 2010. Note that hurricanes Katrina and Rita were both category 3 hurricanes.

Figure D.4 Tracks of Hurricanes Katrina and Rita in 2005



Source: National Hurricane Center, NOAA. Note that hurricane Gustav was a category 2 hurricane.

Figure D.5 Track of Hurricanes Gustav in 2008



Source: National Hurricane Center, NOAA. Note that hurricane Ike was a category 1 hurricane.

Figure D.6 Track of Hurricanes Ike in 2008