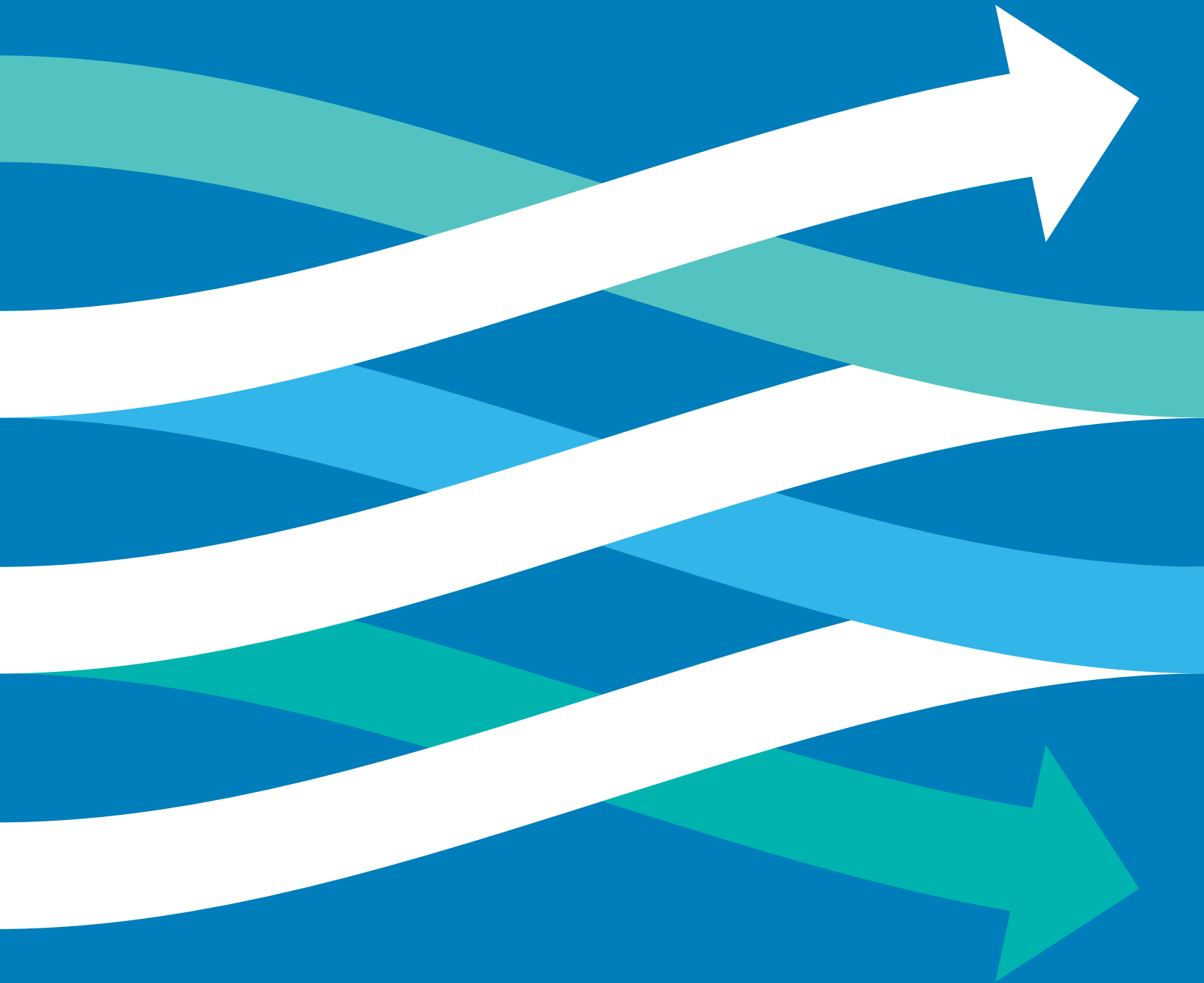




**Louisiana's Seafood Future**

## **Findings Report 2019**

LSF: a State of Louisiana initiative from the Louisiana Coastal Protection and Restoration Authority and the Louisiana Department of Wildlife and Fisheries, coordinated by Louisiana Sea Grant



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# FINDINGS REPORT 2019

## Overview

### Louisiana's Seafood Future

Changes in and loss of habitats, uncertainty about future restoration efforts, and low commodity prices all affect how members of Louisiana's seafood industry face the future. In response, Governor John Bel Edwards asked the staff of the Louisiana Coastal Protection and Restoration Authority, the Louisiana Department of Wildlife and Fisheries, and Louisiana Sea Grant to learn more. As staff of these agencies, we spent much of the last 18 months asking members of the seafood industry how they have addressed coastal challenges up to now and how they plan to address these challenges in the future. This outreach effort is called Louisiana's Seafood Future.

*Mission of Louisiana's Seafood Future: To highlight adaptation strategies created by the people most affected by coastal changes, including shrimpers, crabbers, oyster fishers, finfishers, dockworkers, and processors—people who are at the heart of our coastal seafood economy and culture.*

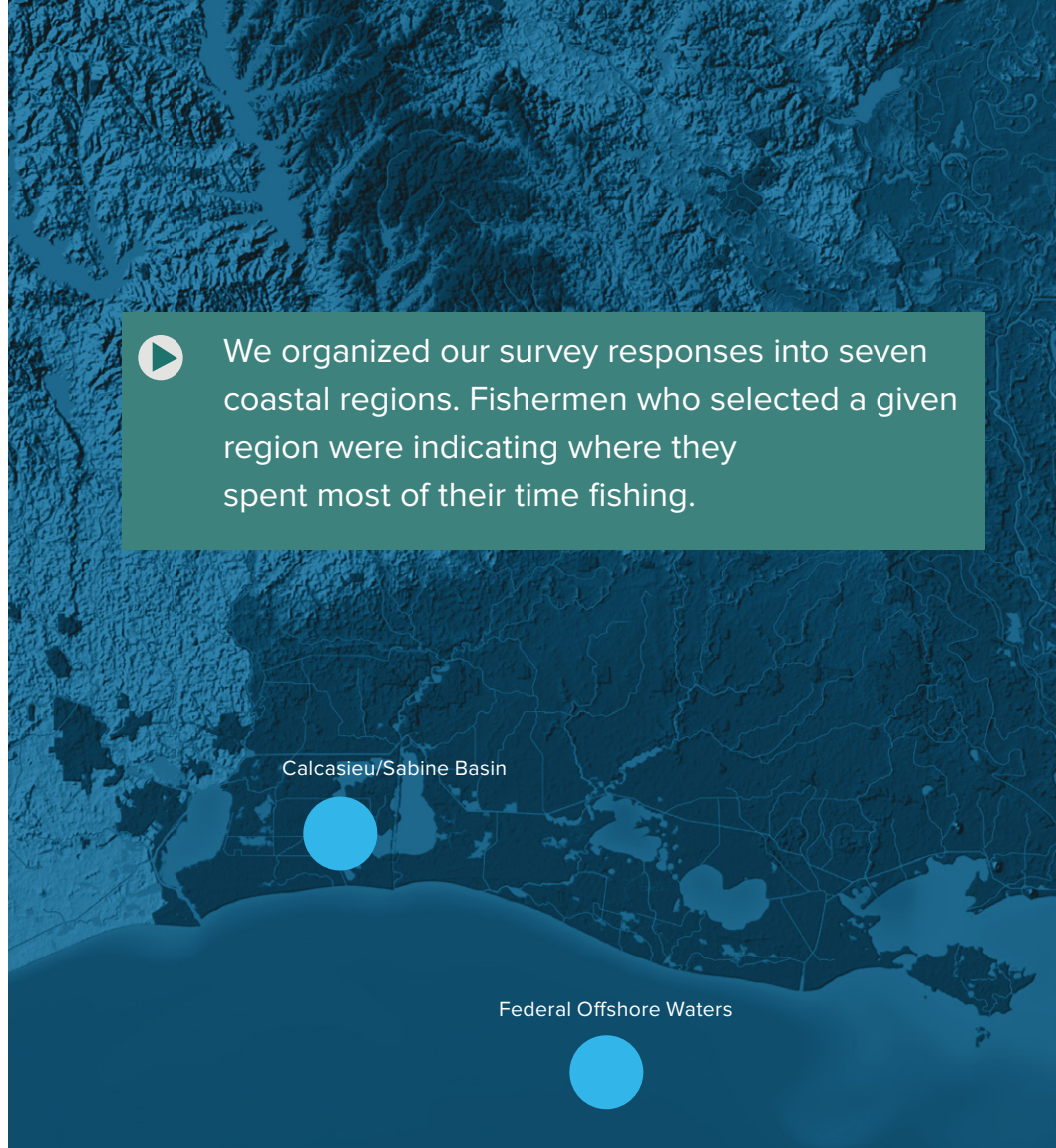
Since beginning this work in 2018, we have held 26 meetings with members of the seafood industry, collecting comments and ideas along the way. We also invited thousands of people to take part in surveys—a short form survey at regional meetings, as well as long form surveys in hard copy and

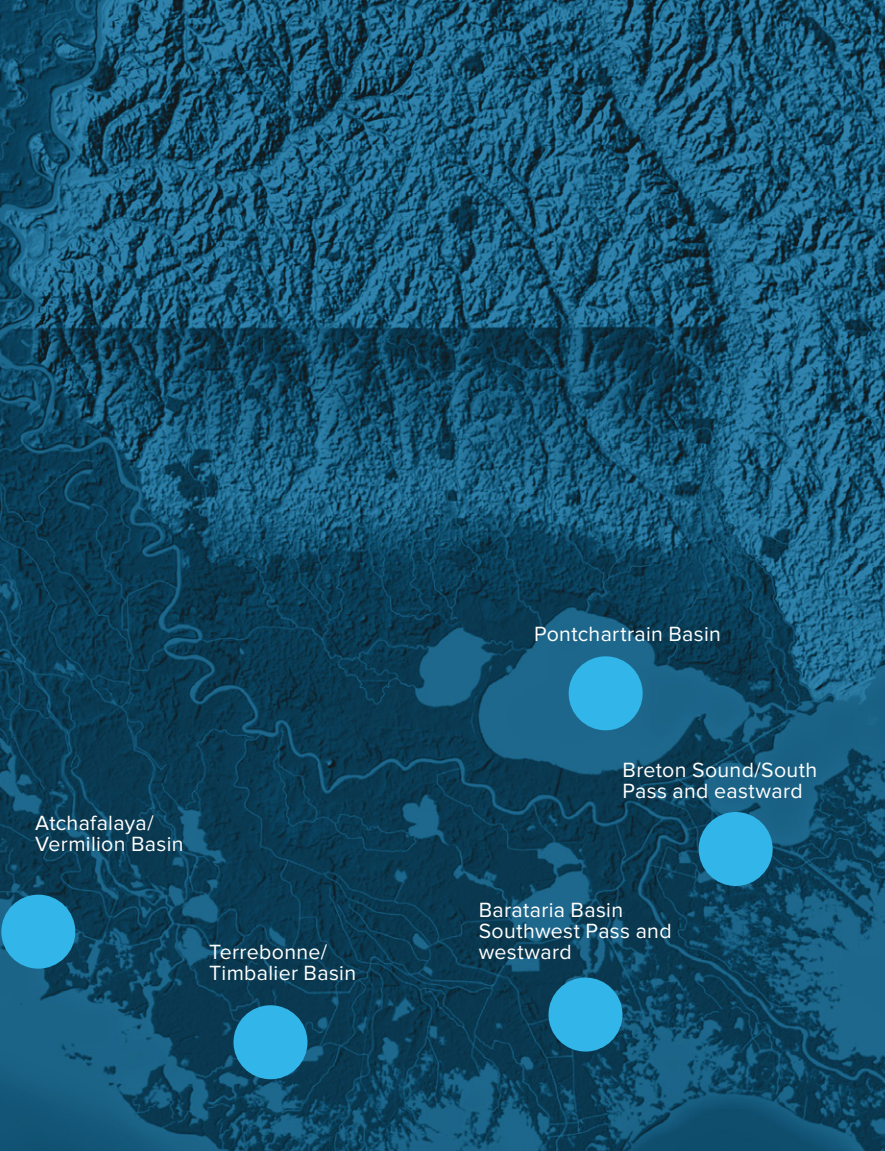
online. By summer 2019, we had over 1000 pages of information about what the Louisiana seafood industry was thinking about, worried about, and planning for.

This report summarizes what we heard. Pages one through nine present results across fisheries. The rest of the report is organized by fishery so that the people who shared their time and ideas with us could easily find the information they care about. Comments, graphs, and charts posted online are organized first by fishery and then by region.



We organized our survey responses into seven coastal regions. Fishermen who selected a given region were indicating where they spent most of their time fishing.



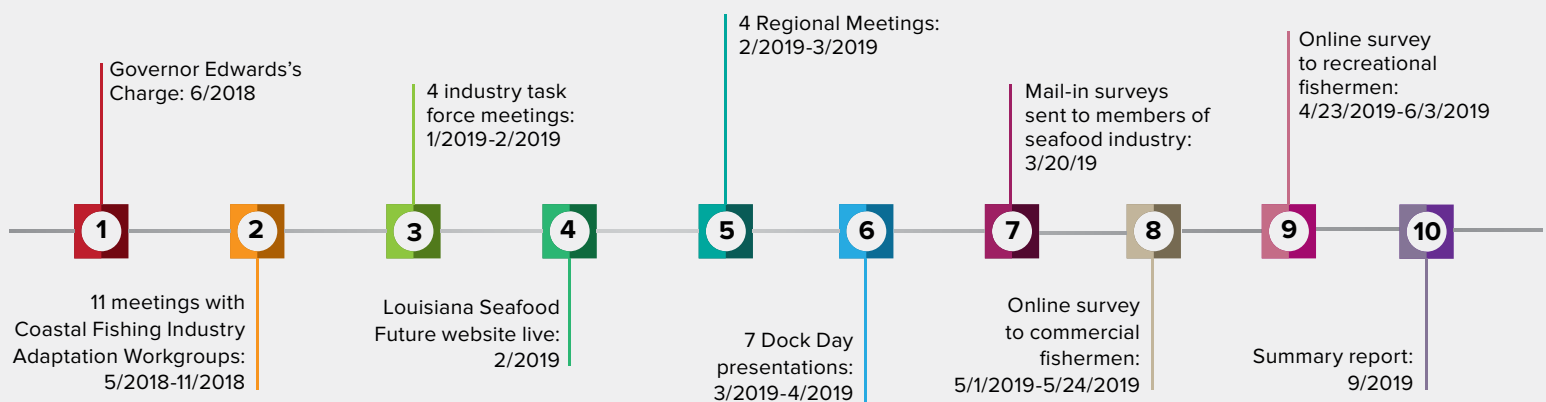


**714}** number of long form, mail-in surveys we received from commercial fishermen

**68}** number of online surveys we received from commercial fishermen

**135}** number of short form surveys people filled out at regional meetings

**4,787}** number of online surveys we received from recreational fishermen



## What We Heard: “Are you really here to listen?”

At some meetings, people said the Louisiana Seafood Future outreach was less about learning from fishermen and more about public relations. This has long been a point of contention for coastal fishermen, and the formal public meeting format we used in spring 2019 compounded the concern. We look forward to exploring whether smaller, more frequent meetings could be a better way to share information.







# What the Surveys Told Us

We asked over 30 questions in our surveys, which were customized for shrimp, crab, oyster, finfish, and charter boat fishermen. This report summarizes what each of the people who fish in those sectors told us.

## 1. How has your fishery been affected by changing coastal conditions?

Short answer: “It’s gotten worse.” Not everyone was equally concerned, however. Oyster fishermen and shrimpers were the most concerned, while some crabbers and finfishers were more inclined to say that conditions were somewhat worse, staying the same, or even, in rare cases, getting better.

The percentage of fishermen across the coast that believes effects on their fishery have gotten much or somewhat worse in the last five to ten years due to changing coastal conditions.

REGION	PERCENTAGE
Shrimpers	<b>85%</b> (257/303)
Crabbers	<b>72%</b> (106/147)
Oyster Fishermen	<b>90%</b> (25/28)
Finfishers-Freshwater	<b>45%</b> (13/29)
Finfishers-Saltwater	<b>74%</b> (28/38)

## 2. How will your fishery change in the future?

Responses continued to reflect strong concern about the future. People were also unsure about the kind of coastal conditions they would be facing and how their fishery would respond.

Percentage of fishermen across the coast that believes the effects on their fishery will get much or somewhat worse in the next 5 to 10 years due to changing coastal conditions.

Percentage of fishermen across the coast that were uncertain about coastal conditions beyond 10 years in the future.

FISHERY	PERCENTAGE
Shrimpers	<b>59%</b> (154/261)
Crabbers	<b>52%</b> (62/120)
Oyster Fishermen	<b>74%</b> (17/23)
Finfishers-Freshwater	<b>32%</b> (9/28)
Finfishers-Saltwater	<b>50%</b> (16/32)

FISHERY	PERCENTAGE
Shrimpers	<b>41%</b> (107/262)
Crabbers	<b>37%</b> (44/119)
Oyster Fishermen	<b>35%</b> (8/23)
Finfishers-Freshwater	<b>54%</b> (15/28)
Finfishers-Saltwater	<b>34%</b> (11/32)



## What We Heard:

Fishermen did not like our use of the word “adaptation,” as in the question, “What adaptation strategies would you be willing to consider?”

Fishermen told us that adjusting to changing circumstances is at the heart of what they have always done. In effect, the wording of our question denied the very spirit that has allowed Louisiana’s fisheries to thrive for so long. To many people, our question also suggested that adaptation was something fishermen should do without support and at the behest of state agencies.

### 3. Which innovative strategies are you most likely to consider?

Responses continued to reflect strong concern about the future. People were also unsure what kind of coastal conditions they would be facing and how their fishery would respond.

- Strategies that required fishermen to take more or fewer trips, change fishing areas, shift to fishing for other species, and in other ways alter their routines had the lowest response numbers and the most mixed results, both pro and con.
- Strategies that involved state action, such as lifting or enacting a moratorium, providing financial help to make boat modifications, and providing marketing support drew more responses overall and tended to be more popular.
- “More popular” is a relative term. In our analysis, it usually meant 45-65% of responses strongly supported a given measure. Levels of opposition or support greater than 70% were rare.

### Final questions in the long form survey.

We customized most questions to specific fisheries in our long form surveys, but we asked all respondents to answer the final six questions below. These questions received many responses, from an average of 46 responses per question in Calcasieu to 161 responses per question in the Barataria region. Because almost all responses were fairly consistent across fisheries and regions, they show how Louisiana’s seafood industry as a whole is considering its options.

QUESTION	RESPONSE
Q. 31, #1: If you had help to do so, how likely are you to consider changing fishing gear or equipment?	<b>Responses were mixed</b> among those fishing primarily in Breton, Terrebonne, and Atchafalaya. Of those fishing primarily in Barataria, Calcasieu, and Pontchartrain, an average of 29% of respondents said they were very likely to consider this option. Of those fishing primarily in federal waters, 44% were very likely to consider this option.
Q. 31, #2: If you had help to do so, how likely are you to consider adding refrigeration equipment?	More respondents in all regions were very unlikely to consider this option. These percentages ranged from an average of 36% of those fishing primarily in Terrebonne, Barataria, and Atchafalaya, to an average of 49% for remaining regions. The exceptions were those fishing in federal waters, 49% of whom were very likely to try this option.
Q. 31, #3: If you had help to do so, how likely are you to consider modifying your boat to reduce fuel use?	More respondents in all regions were <b>very likely</b> to consider this option. These percentages were in the mid to upper 30s, with those fishing primarily in federal waters at 54%.



QUESTION	RESPONSE
Q. 32, #1: How likely are you to work more in a field other than commercial fishing?	On average, slightly more respondents in all but one region were <b>very unlikely</b> to consider this option. These percentages ranged from 33% for those fishing primarily in Terrebonne, to 49% for those fishing primarily in Breton. By contrast only 27% of those fishing primarily in federal waters were very unlikely to consider this option.
Q. 32, #2: How likely are you to stop commercial fishing altogether?	On average, 56% of respondents in all regions were <b>very unlikely</b> to stop commercial fishing. Within specific regions these percentages ranged from 50% for those fishing primarily in Terrebonne and Calcasieu, to 65% for those fishing primarily in Breton.
Q. 33: Interested in training to develop a business plan that could help you gain funds to improve your vessel, gear, facilities, etc.?	More respondents in all regions <b>were interested</b> in this option. Percentages of those saying yes averaged 47%. "Not sure" consistently received between 20-35%, and "No" responses were approximately 20%.

## From the Comments: Five Take Home Messages

Our surveys invited people to send us comments, and we received hundreds of them. Many commenters described being worried and unsure about the future. But the take-away was not all negative. Commenters also spoke of their attachment to their work and their resolve to survive as fishermen.

- **"We are struggling."** Coastal change is affecting fishermen in a big way, not just requiring constant adjustments in how they fish, but also spurring deep concern about how they will cope going forward.
- **Resilience.** Across all comments, people spoke about their willingness to innovate when conditions change. However, commenters also told us that the magnitude of coming changes is such that they need more support to keep Louisiana's fisheries productive.
- Many commenters told us **they needed more information** about what to expect. Commenters also said that they had waited years for these kinds of questions to be answered: How should they prepare? Can they get assistance to make changes? To what degree will this assistance be customized to their needs? How, in other words, can fishermen use their tradition of resilience most effectively in the coming years?
- The idea of **river diversions** spurs both anxiety about the future and a need for information. Comments about diversions at regional meetings and in comments often focused on the scale of change that these projects could impose. While they were not completely sure what to expect, many commenters didn't think their industry could handle the spin-off effects.
- **Sharing the coast is not easy.** Several comments mentioned the difficulty of shrimpers, crabbers, oyster fishermen, finfishers, recreational fishers, and charter boat operators all sharing inshore waters. We heard about PVC oyster bed markers placed across canals that create hazards and block waterways, abandoned crab traps that rip shrimp nets, and fishing practices that take too much of a shared resource. Several commenters told us such challenges would only increase with coming coastal changes.



## What We Heard:

**“We’re not just one big group.”**

Even within specific fishery types there are many kinds of fishermen: full time, part-time, old school, new school, inshore, offshore, and so on. Talking about “what fishermen think” is inaccurate unless it takes into account this diversity. What they fish matters, where they fish matters, and their approach to fishing matters.



**80:** number of surveys completed by Vietnamese fishermen with assistance from Louisiana Sea Grant’s extension agent, Thu Bui.





## About Our Outreach Effort

Our goal with the Louisiana's Seafood Future outreach effort was to err on the side of inclusion. So we gave members of Louisiana's commercial fishing industry plenty of ways to tell us what they thought. We encouraged people to fill out surveys at regional meetings, mailed out 10,000 hard copy surveys, and invited people to take part in an online survey.

In a separate effort, we also sent out an online survey via Survey Monkey to 157,749 recreational fishermen using the Louisiana Department of Wildlife and Fisheries' eblast system. We received 4,787 responses. Results for recreational fishermen are still being evaluated using output from Survey Monkey; a preliminary analysis is included at the end of this report in the anglers section.

The upside? We gathered just over 900 survey responses and hundreds of comments from commercial fishermen that tell us, in forthright language, how people look at the challenges facing their industry. The downside? We collected surveys at different times, different places, and in different formats. As a result, our surveys come with caveats.

Because the surveys were administered in different ways, **we could not combine all the results** and draw conclusions from the responses as a whole

→ What it means:

- We used the 714 long form, mail-in surveys as the foundation for our analysis. We also reviewed the online and regional meeting survey results to see how they echoed or contradicted our baseline messages.
- When we referenced survey results in this report, we labeled the data source so readers could see where we got the information.



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<sup>1</sup> Raw data was organized using the survey management software Qualtrics, which we used to create the graphs and charts we posted online. We also used the Qualtrics graphs to develop this report.



**People may have completed multiple surveys.** We did not restrict people from telling us what they thought—at in person regional meetings, online, or as part of our mail-in surveys.

- What it means: There may be some repeat responses and comments, but we found no concerted effort to distort the surveys' overall results.

In our survey of members of Louisiana's commercial seafood industry, we asked people to pick one fishing category (shrimp, crabs, finfish, and oysters) that best represented their business. **Instead, many people picked more than one category**, because that is how Louisiana's fishing industry works.

- What it means:
  - One person may have answered survey questions pertaining to multiple fisheries.
  - When we report what people in one fishery said, such as crabbers for example, we are including the viewpoints of people who may also consider themselves shrimpers, finfishers, or oyster fishers.

**People skipped questions.** Overall, dozens of people answered questions about each fishery. However, response rates varied by region and by fishery. Sometimes we received 10 or fewer responses to a particular question in a given region of the coast.

- What it means: Graphs that show a clear trend may only be based on a few responses. That's why all of our online data includes the number of respondents.

**We received lots of comments**, which is what we wanted. We have posted every comment online and cited many of them in this report. Comments were not edited, except to correct typos or add words in brackets for clarity.

- What it means: What you see is what people said.

**Our surveys did not cover everything.** People filled out the surveys in the spring of 2019, before the full impacts of the 2019 flood hit Louisiana, before Hurricane Barry, and before the Coastal Protection and Restoration Authority began holding meetings to discuss operational plans for river diversions.

- What it means: The results in this report offer one snapshot of how fishermen in Louisiana see their industry. We need to keep the conversation going if we are to support our state's fishermen and the vital service they provide





# Shrimp



## In Their Own Words

(written comment sent to LSF website):

**“We work to create better gear to help catch more shrimp and less by catch. We do testing on different netting, doors and so on to make sure that we are becoming as fuel efficient as we can on our vessels. We have been adapting since 2000 and haven’t stopped yet. We are always looking to improve, but the benefits have to far outweigh the costs.”**

See all survey results and comments at our website: [laseafoodfuture.com](http://laseafoodfuture.com)



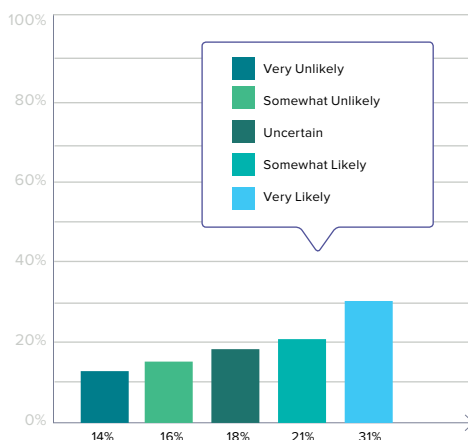
## Keeping the Business Going, but the Going is Tough

The effects of coastal change are bad now and getting worse in the minds of Louisiana shrimpers, even as they remain uncertain about exactly what kinds of effects to expect in years to come. Despite this uncertainty, no shrimpers surveyed thought that conditions would improve, and concern remained high about coastal

conditions beyond 10 years in the future. While shrimpers’ survey responses show some openness to trying new approaches, many told us they had already made many adjustments and would need support and information from the state if they were to keep their businesses going.

Online Survey: 3rd part of Q.14

How likely are you to spend more hours per trip?



The diverse responses to this question were common among shrimpers answering our surveys. Based on 302 responses.



## What We Heard:

River diversions have shrimpers worried. Some, particularly in Barataria and Breton regions, said that water pollution and changing salinities would be one stressor too many for their already struggling businesses. Others said that while diversions would be a problem for them, the main threat to their businesses was the low price of shrimp.





## Shrimpers Weigh In: Responses to Survey Questions

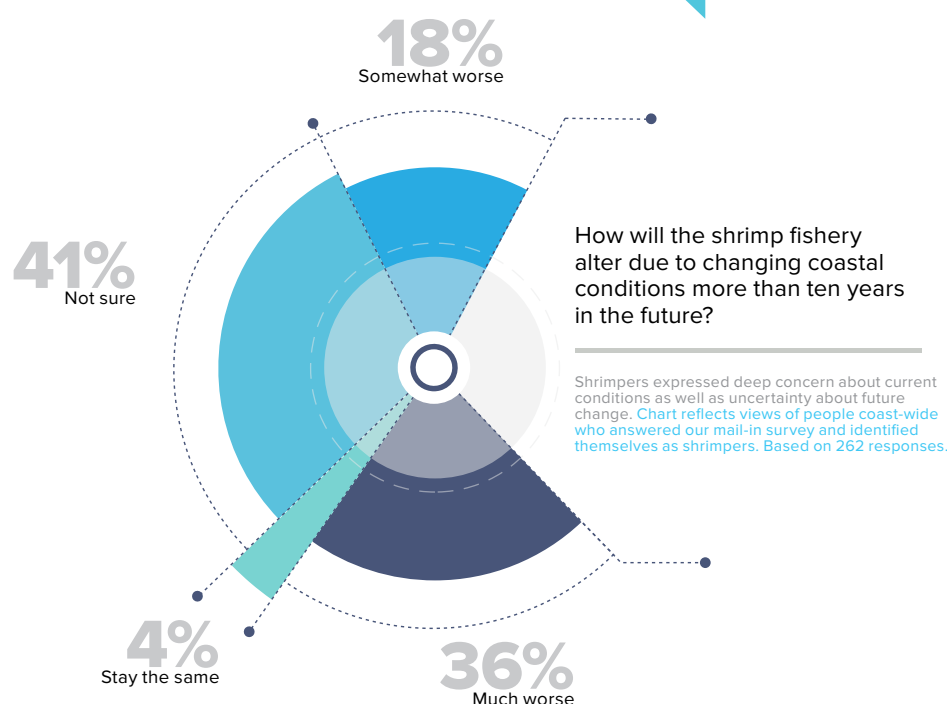
Overall, shrimpers were not interested in supplementing their catches with or switching their focus to fishing for crabs, finfish, or oysters. This was a consistent result across regions, with the sole exception of Pontchartrain where there was some interest in increased crabbing and finfishing. Few inland shrimpers were likely to seek a federal permit to shrimp in offshore waters.

Overall, shrimpers had mixed views about changing the areas where they fished, and many seemed inclined to take fewer trips. However, many shrimpers said they were likely to spend more time per trip.

A strong majority of shrimpers supported increased funds for marketing Louisiana shrimp in order to increase prices.

→ **INDUSTRY IMPACT**  
On average, Louisiana  
shrimpers catch over  
**75 million pounds**  
of product each year.

Source: LDWF data; averages based on annual values between 2000 and 2013.



### In Their Own Words

(comments from mail in surveys):

- My last [4 day] trip fishing inshore I trawled a total of 54 hours, [daylight hours only]. I caught 6800 pounds of 60-70 count shrimp. I was paid 40 cents per pound. This was my cost expense break down (calculated for fuel, ice, food/oil/supplies, net repair, and boat). So, for 4 days, working approx. 14 hours a day I netted \$285. How can I make a living like this??
- Fifty cents a pound for 70-80 count is sad, very sad. I can grow potatoes and get that price. Bologna and lunch meat sell for way more than that.

**ALMOST  
HALF**  
OF THE MAIL IN AND ONLINE  
SURVEYS WE RECEIVED  
WERE FROM  
**Shrimpers**







### In Their Own Words

(written comment sent to LSF website):

“There is a need for Business 101 for those who road side sell. They need to understand how to set prices. [They] need to know how to come together, get to meetings, learn how to advocate for a law, and how to get things done in a professional manner.”

See all survey results and comments at our website: [laseafoodfuture.com](http://laseafoodfuture.com)

This section highlights opinions of people who attended Louisiana Seafood Future meetings or completed Louisiana's Seafood Future surveys. Their views do not necessarily reflect the position of Louisiana's state agencies.

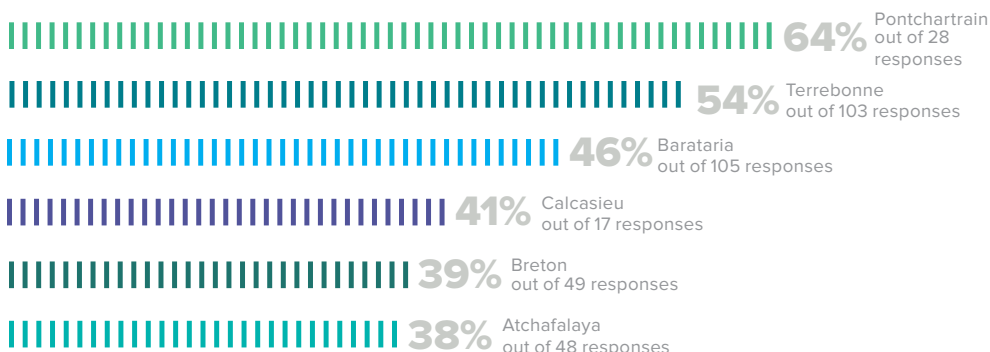
## Shrimpers Share Ideas About the Way Forward

In their remarks at public meetings and in the comments they sent us, shrimpers had specific ideas about what would make their industry work better. Many of their recommendations reflected the diverse needs of different areas of the coast. For example, the issue of when shrimping seasons are opened garnered several comments, each showing how the sequence of opening seasons affected different areas. Besides geographic diversity, there are also different kinds of

shrimpers. For example, the owner of a relatively small boat said that freezer equipment would be too large for his operation even if he had financial help to buy it. Another shrimper with a bigger vessel said refrigeration equipment could help his business but he would need help to make the purchase. Shrimpers also mentioned the challenge of sharing a changing ecosystem with other types of fishermen, including crabbers, oyster fishermen, and recreational fishers.



### Percentage of shrimpers very unlikely to seek a federal permit for offshore shrimping



In written comments, some inshore shrimpers said they would like to fish in federal waters, but the onerous permitting process—as well as possible needs for new gear and bigger boats—deterred them. In survey responses, many inshore shrimpers said they were very unlikely to seek a federal permit.



## In Their Own Words

(written comment from mail-in survey):

**“We as fishermen know how to adapt to the coastal changes and have been doing so for quite some time. We need better prices for a better product.”**

(written comment submitted at regional meeting in Breton/South Pass region):

**“We have fished the same waters out of Delacroix Island for hundreds of years. Therefore commercial fishing is so much more than just a job to the fisherman of this area, it is a tradition, it is our family heritage. The fisheries we utilize are in brackish waters—not fresh and not salt. Therefore, building a diversion of this magnitude right in the heart of our fishing grounds will be absolutely devastating to our fishing community.”**

## Shrimpers Weigh In:

These are just some of the many ideas we received at regional meetings and in surveys.

**Getting a better price for shrimp.** We heard that prices are low at the dock and high at stores, but shrimpers aren't seeing gains from these high prices. Improving awareness of how to set prices for direct marketing was mentioned several times. Several comments described how the industry as a whole suffers if some shrimpers undercut others by selling shrimp at very low prices, either at the dock or online.

**River diversions.** In the minds of many shrimpers who sent in comments, dredging was better than diverting Mississippi River water. They cited several areas that needed targeted land building through dredging. Some shrimpers mentioned buy-outs in connection with future river diversions.

**Managing the shrimp resource.** Examples of shrimpers' suggestions included:

- raising the minimum size of shrimp (to 65-68 count) allowed to be caught,
- prohibiting 70-80' boats from trawling in inland waters,
- putting a moratorium on crab licenses to reduce the number of traps that impede shrimp fishing.

**The role of government assistance.** Many shrimpers agreed that government assistance could be helpful if it solved the common problem of raising shrimp prices by providing marketing assistance. Other types of government assistance mentioned in the comments had both supporters and opponents. These included:

- help for purchasing more efficient engines and refrigeration systems,
- fuel subsidies,
- place of origin labels and information on additives for all imported shrimp,
- proposals that would ensure a steady and higher price for shrimp,
- workforce development to encourage younger people to become part of the industry.





## Crabs



### In Their Own Words

(written comment from mail-in survey):

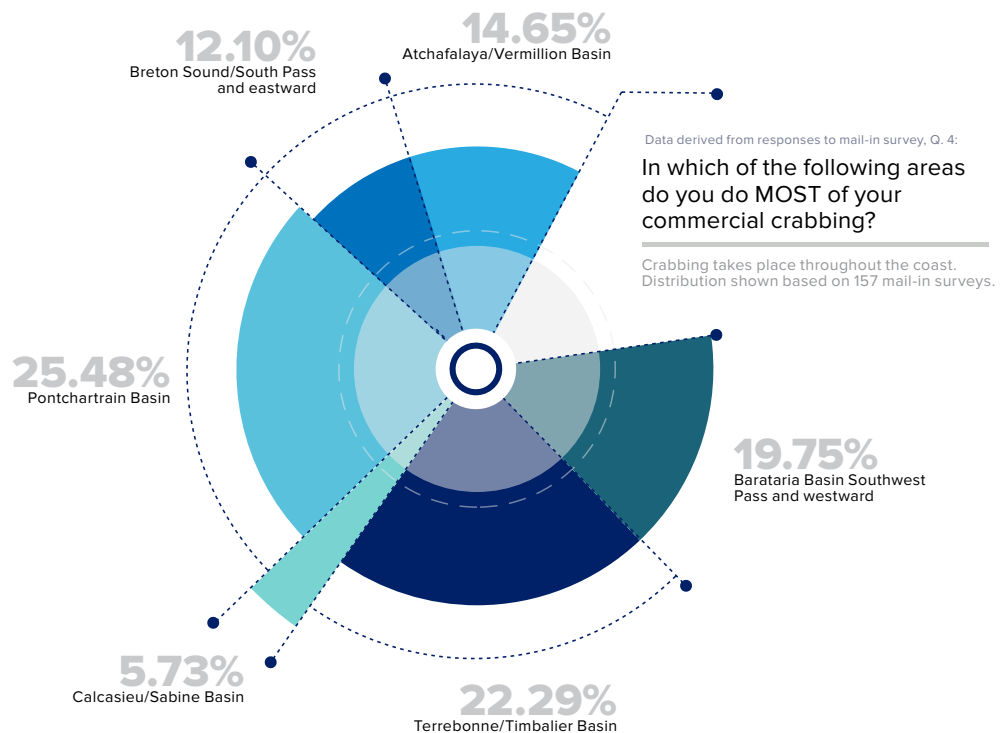
**"I have been crabbing for close to 50 years now. I have also been a fireman for the last 31 years as well...I have had good years, not so good years, and some really bad years... the only reason that I do still crab is the fact that I do have another job to rely on during the bad times."**

See all survey results and comments at our website: [laseafoodfuture.com](http://laseafoodfuture.com)

## A Changing Industry Considers Its Options

While they are not in the headlines as often as other members of Louisiana's seafood industry, crabbers are feeling the effects of coastal change. In their survey responses, crabbers feel strongly that over the last 5 to 10 years, the blue crab fishery had changed for the worse. Looking forward, crabbers' responses were roughly split between those who feel the future will definitely be worse and

those who aren't sure how coastal conditions will shift. Crabbers were asked for their opinion on several proposals, and, broadly speaking, they were especially open to policies that would be administered by local or state government. Other strategies, such as fishing in different areas, increasing fishing of other species, and spending more time per trip drew varied responses.



### What We Heard:

One of the choices for crabbers taking the mail-in and online surveys was to rate the value of certain options as being "neutral/no impact." Crabbers selected this option more often than those in other fisheries. When a proposed strategy got many "neutral/no impact" votes, we assumed crabbers were saying that the strategy was not useful.

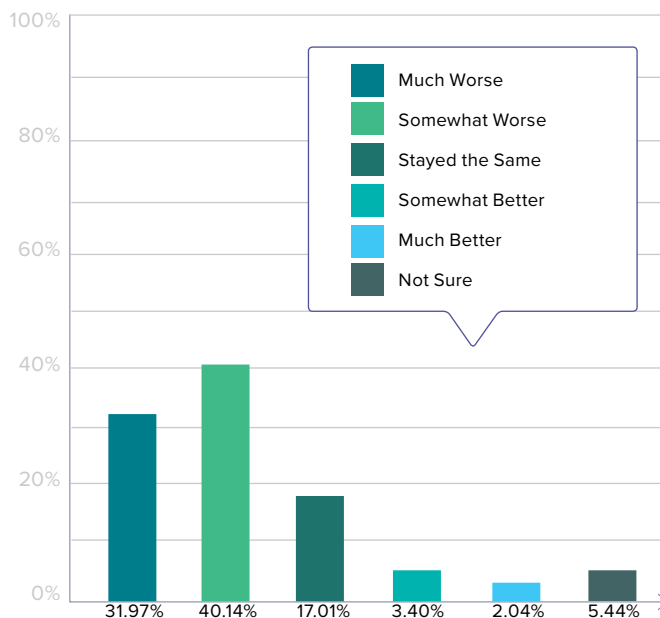


## Crabbers Weigh In: Responses to Survey Questions

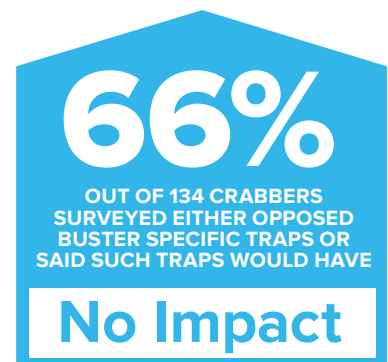
- Crabbers were not inclined to shift to fishing more for finfish or oysters. Between the two, oyster fishing was less popular than finfishing and shrimping. This was a consistent result across regions. Crabbers were somewhat more likely to consider shrimping more often, compared to finfish or oyster fishing.
- Responses showed varied support for fishing for crabs in different areas. Those fishing in federal waters and Calcasieu were the most open to the idea.
- Increasing the number of trips also had varying support, as did setting out more crab traps. A consistent percentage of crabbers (usually 40 to 50% out of approximately 140 responses) said they would not change the number of trips they took or the number of crab traps they set out.
- There were more detractors than supporters for increased closures for crab trap removal efforts, and more supporters than detractors for the idea of developing local bait sources.
- Most crabbers thought buster specific traps and developing better traps would not have much impact, though there were some proponents of both proposals.
- Increased marketing, a moratorium on licenses, and reducing predation by red and black drum were all popular.

Mail in Survey: Q.5, #1

How has the blue crab fishery altered in the last 5 to 10 years as a result of changing coastal conditions?



Based on 147 responses.



### In Their Own Words

(comment emailed to LSF website):

**"Stop the sale of five to five and half inch factory crabs after they [have just gone] through a big shed. Give them a chance to get heavy; let them grow. This will force factories to buy Number 2 fat crabs with meat on them, and this will drive the price up."**







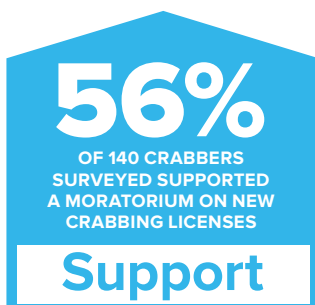
## In Their Own Words

(comment in mail-in survey):

**“Instead of having to place a moratorium on a crabber licenses, try doing away with the rake boats. They increase the amount of traps they run in a day by hundreds. If they had to pull the traps by hand they would only run 3 or 4 hundred traps a day compared to 1000 to 2000 traps a day, with a rake boat.”**

(comment from mail-in in survey):

**“I strongly oppose any diversion! If the Mid-Breton Diversion is put in it will completely ruin the crab fishery and every other fishery... where I make a living and provide for my family! I think the mud should be pumped in to get instant results. Leave the polluted/toxic Mississippi River water in the river and not in our estuaries.”**



## Crabbers Share Ideas About the Way Forward

In their written comments, crabbers shared strong opinions about what their fishery needed to thrive. Their suggestions were plentiful and specific, but as with all coastal Louisiana fisheries, almost every

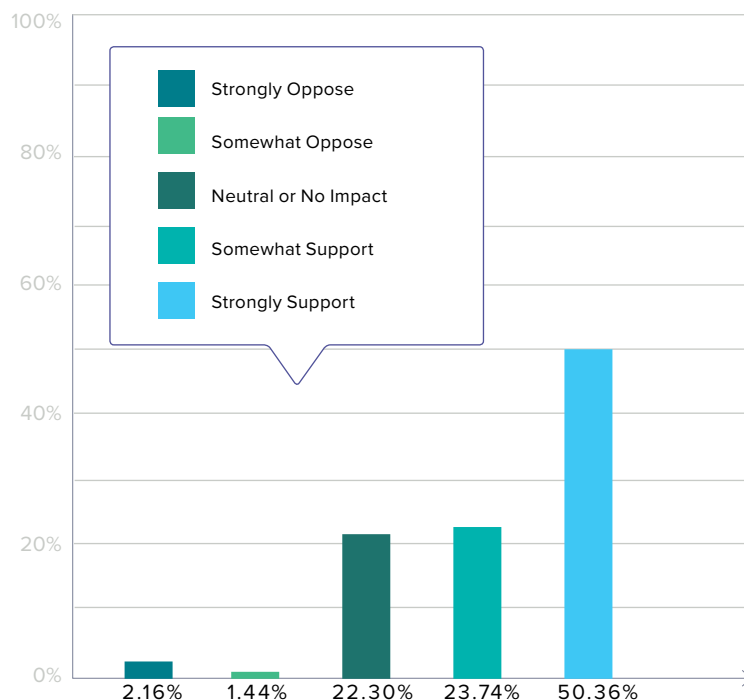
idea proposed had both strong supporters and opponents. For example, owners of smaller and larger crabbing operations have different perspectives, as do part-time and full-time crabbers.

The opinions in this section are those of people who completed surveys or attended meetings. These views do not necessarily reflect the position of Louisiana's state agencies.



Mail in Survey: Q.9, #2

Indicate the extent to which you support or oppose developing local crab bait sources.



Overall, crabbers supported development of local bait sources. Based on 139 responses.

## → INDUSTRY IMPACT

On average, Louisiana  
crabbers catch over  
**45 million pounds**  
of product each year.

Source: LDWF data; averages based on  
annual values between 2000 and 2013.



LSF  
Findings Report 2019



### In Their Own Words

(comment in mail-in survey):

“When I started crabbing in the mid 80s a big crabber fished 500 traps, and most fished 150 to 200 traps. I fished 200 in Lake Pontchartrain and always caught crabs...The biggest thing is the amount of traps in the water...When I fished 200 traps I would catch 3 to 4 18-quart ice chests of red line during the April-March timeframe and the same in October. Now I don't think I am going to turn my [shedding] tank on; it's not worth it.

(comment from mail-in survey):

“[One problem is that] if we have a trap on the boat without our own tag and get checked by a wildlife agent, we get a ticket. I know that theft is a huge problem, but somehow if there could be a process created for a commercial crabber to be able to remove derelict crab traps without getting a ticket, more derelict crab traps could be removed all year round.”

## Crabbers Weigh In:

These are just some of the many written comments we received at regional meetings and in surveys.

**Conserve the resource by instituting a shorter crabbing season.** Crabbers mentioned closing the season in winter and using this time to pick up ghost traps, as well as limiting the catch of female crabs, particularly during mating season.

**Better regulate the industry to improve prices and support the fishery.**

Ideas included:

- Don't allow recreational fishers to keep undersized crabs.
- Impose catch limits on pounds of crab per day (2000 pounds suggested).
- Require vessel owners to be in the boat to stop people from having three and four boats out in the water at the same time.
- Limit the number of new licenses (see support for moratorium opposite).

**Stop diversions and dredge instead.**

**Control the proliferation of crab traps by setting limits on how many traps one person can operate.**

- 350-500 traps per crabber were suggested; many people complained about operations that used 1000+ traps.
- One person recommended an allowance for a 10% loss, as well as a requirement that an old trap had to be turned in before a new one could be bought.

**Clean up ghost traps.** Crabbers said that the line between stealing traps and cleaning up defunct traps could be hard to draw. Nevertheless, several crabbers mentioned the sheer number of abandoned traps in the water as a hazard that needed to be addressed.

- One commenter suggested having dumpsters at the docks for shrimpers to throw traps in as they sell their shrimp during the May and August seasons.
- Another commenter pointed out that the quality of crab traps had fallen, and this made traps more likely to become “ghosts.”

NEXT PAGE  
Oysters





**5 OUT OF 7**

Number of oyster fishermen who took our online survey and said that coastal conditions have made the oyster fishery...

**Much worse in the last 5 to 10 years**



## On the Edge

Of all the people who responded to our mail-in surveys, oyster fishermen as a group showed the most concern about present and future conditions, with over 50% in all coastal regions saying that changes in coastal conditions have made the oyster fishery much worse. Looking to the future, oyster fishermen said in their comments

that making small changes on their end was not likely to matter, given the impacts of future Mississippi River diversions. This belief could explain the low response rate to some of our survey questions (see below). Overall, their responses reflected an industry facing tough choices.

→ **INDUSTRY IMPACT**  
**On average, Louisiana oyster fishermen catch over 12 million pounds of product each year.**

Source: LDWF data; averages based on annual values between 2000 and 2013.



## What We Heard: Fewer opinions on surveys

Fewer oyster fishermen answered LSF mail-in survey questions compared to crabbers, finfishers, and shrimpers. Responses to individual questions numbered in the 30s and 40s for crabbers and sometimes over 100 for shrimpers. The number of finfisher responses was usually in the twenties. By contrast, responses from oyster fishermen often numbered in the low 20s, teens, or even single digits—even in Barataria and Breton. This was particularly true for questions asking about changes fishermen themselves planned to make in their fishing practices.

# Oyster fishermen Weigh In:

## Responses to Mail-in Survey Questions

- When their responses were combined across regions, oyster fishermen were uncertain about whether moving their oyster beds or pursuing off bottom cultivation were good ideas. They were also very unlikely to or uncertain about increasing their time fishing for crabs, shrimp, or finfish.
- With a few exceptions, there was support for lifting the oyster lease moratorium, increasing oyster seed production, increased marketing, and gaining compensation or mitigation. Support for Farm Bill commodity insurance was slightly less strong overall, with 45% of 29 respondents strongly supporting. Increasing oyster hatchery production had more supporters than detractors.
- If they had help to do so, oyster fishermen were more likely than other types of fishermen to consider new approaches to harvesting (changing fishing gear or equipment and adding refrigeration equipment).
- There were important regional differences on these issues. See figures.

## DIFFERENT REGIONS SUPPORT DIFFERENT STRATEGIES

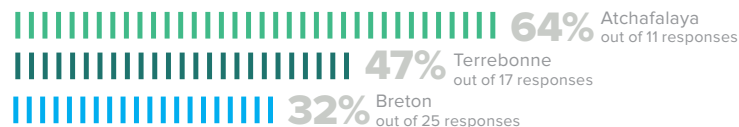
While most oyster fishermen supported lifting the moratorium, in some regions the measure was less popular.

### Neutral/saw no impact and/or opposed to lifting the oyster lease moratorium.



### Different views on converting public seed grounds to private leases.

#### Strongly opposed:



#### Strongly supported:



#### Neutral/saw no impact:

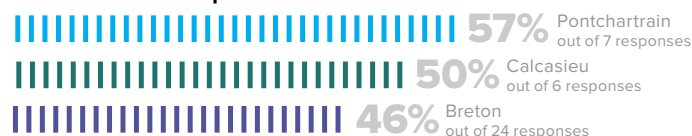


### Tempered support for increasing oyster hatchery production.

#### Strongly support:



#### Neutral/saw no impact:



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## In Their Own Words

(written comments from regional meetings and mail-in surveys):

As with crabbers, shrimpers, and salt water finfishers, river diversions spurred comments from oyster fishermen.

→ "Oyster production has to have the correct salinity to survive. In every area where fresh water has taken over, oysters no longer exist. I have been buying new leases in different areas, buying and planting cultch material, and building a larger faster boat to maintain and fish these grounds further from the dock in order to survive in this business. Many other fishermen have been driven from their industry because of fresh water and many more will also fall. SAD!"

→ "[We] have had to adjust for years...because of natural changes in the environment, as well as small human/environmental interactions. A huge change will require a huge adjustment. Why are the commercial fisherman so often collateral damage when it comes to coastal restoration? Stop the major diversion projects that severely impact the ecosystem."

NEXT PAGE

Oysters Continued







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### In Their Own Words

(written comments from Barataria regional meeting):

**“The state agencies are going to have to adjust as well as the user groups. Policies, laws, etc. are going to have to adjust as well.”**

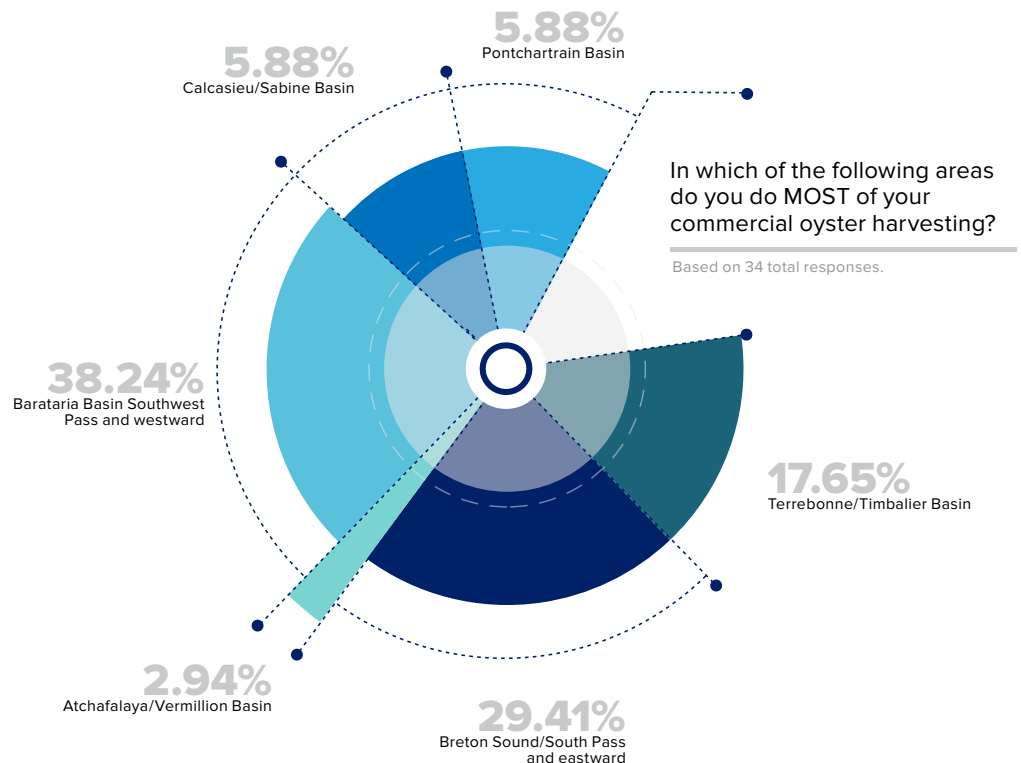
**“The state needs to adapt to us a bit.”**

**“I can’t pick up my oyster leases and move them somewhere else.”**

See all survey results and comments at our website: [laseafoodfuture.com](http://laseafoodfuture.com)

This section highlights opinions of people who attended Louisiana Seafood Future meetings or completed Louisiana’s Seafood Future surveys. Their views do not necessarily reflect the position of Louisiana’s state agencies.

## Oyster Fishermen Share Ideas About the Way Forward



### Oyster Fishermen Weigh In:

These are just some of the many comments we received at regional meetings and in our surveys.

**Making adjustments.** Like many of the fishermen who took part in our survey, oyster fishermen felt strongly that they alone should not be responsible for making adjustments. Written comments also showed support for buy-outs or other forms of compensation, echoing the support shown for this option in surveys.

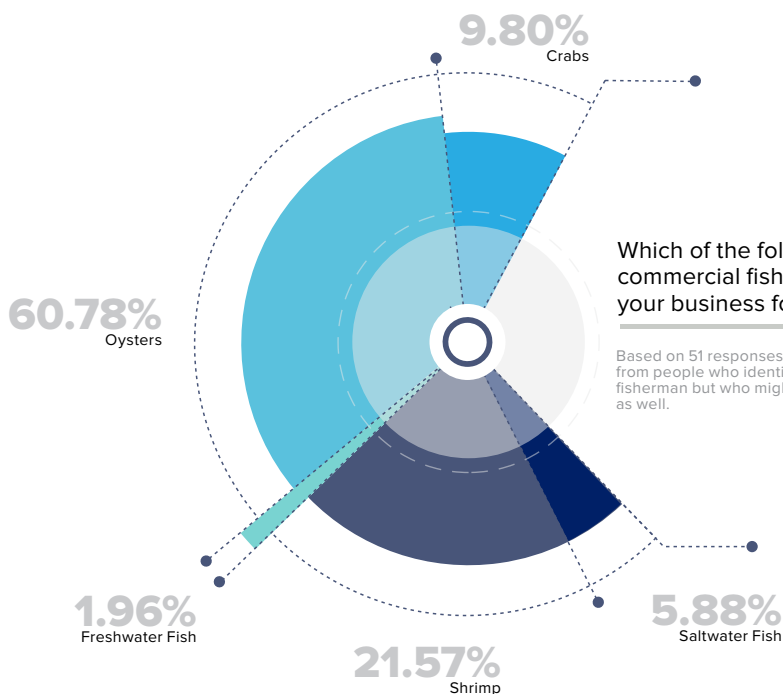
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**Ideas for innovating.** These comments focused on the challenge of securing new sites to pursue oyster fishing. Opinions on these ideas differed among oyster fishermen who completed our surveys. As with other fishermen, innovation was assumed to be a necessity, but people did not always speak with one voice on which path the industry should take.

Ideas included:

- allow leaseholders to lease new waterbottoms;
- lift the oyster lease moratorium;
- build new docks;
- limit catches to 35 sacks a day;
- create a new income chain by requiring restaurants, shucking houses, and related businesses to keep or recycle shells and develop a regular pickup system for shells to be returned to reefs for restoration;
- have a place to dump shells that is water accessible so that fishermen can return shells to the reef;
- correct the pricing disparity between retail and wholesale through better marketing efforts;
- dredge to create land; don't divert Mississippi River water.



### In Their Own Words

(written comments from mail-in survey):

**“As an oyster fisherman that didn’t have the chance to move due to a moratorium on oyster leases it is very bad and still very bad and will be very bad unless things change with the state of Louisiana.”**

**58%**

OF THE WRITTEN COMMENTS WE RECEIVED FROM OYSTER FISHERMEN PROTESTED RIVER DIVERSIONS.

**No Diversions**





## In Their Own Words

(written comment sent in with mail-in survey):

**"In my line of work, coastal erosion is not a factor. Lock and dam operations, attempts to remove sediment at Old River Control, equipment increases, fuel, and FDA regulations on catfish are major factors that hamper my livelihood. Unlike farmers, we are not subsidized by the government."**

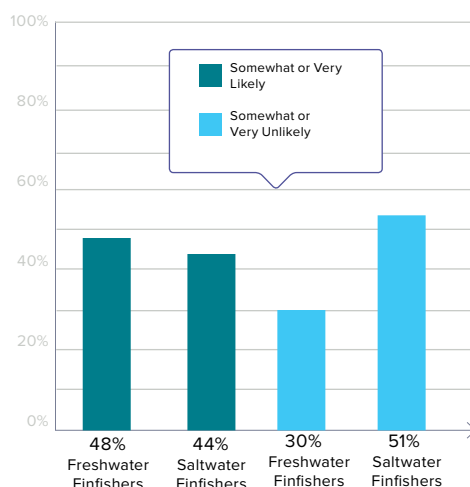


## Where the Fish Are

In their survey responses, finfishers gave us different assessments of the effects of coastal change on the fishery. Among those who fish primarily in the Barataria, Breton, and Terrebonne regions, people said present and future effects are already and will make the fishery much worse, although those three regions also had solid percentages of other people saying they were not sure what to expect. More finfishers who fish primarily in the

Atchafalaya, federal waters, and Pontchartrain regions said they were not sure what future effects would be compared to the number of people saying those effects would be much worse. Roughly 10-15% of finfishers across the coast thought conditions would stay the same, and a few people, particularly in Calcasieu and Pontchartrain, thought conditions were getting better.

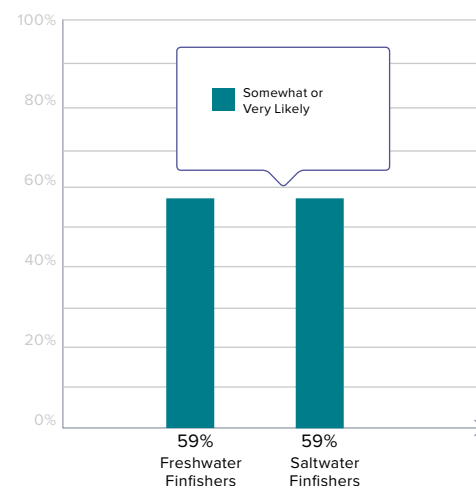
How likely are you to target different species of finfish in response to changing coastal conditions?



**freshwater finfishers:** 11 out of 23 respondents or 48% said they were somewhat or very likely. 7 out of 23 or 30% said they were somewhat or very unlikely.

**saltwater finfishers:** 17 of 39 respondents or 44% were somewhat or very likely, and 20 out of 39 or 51% were somewhat or very unlikely.

How likely are you to harvest finfish in different areas in response to changing coastal conditions?



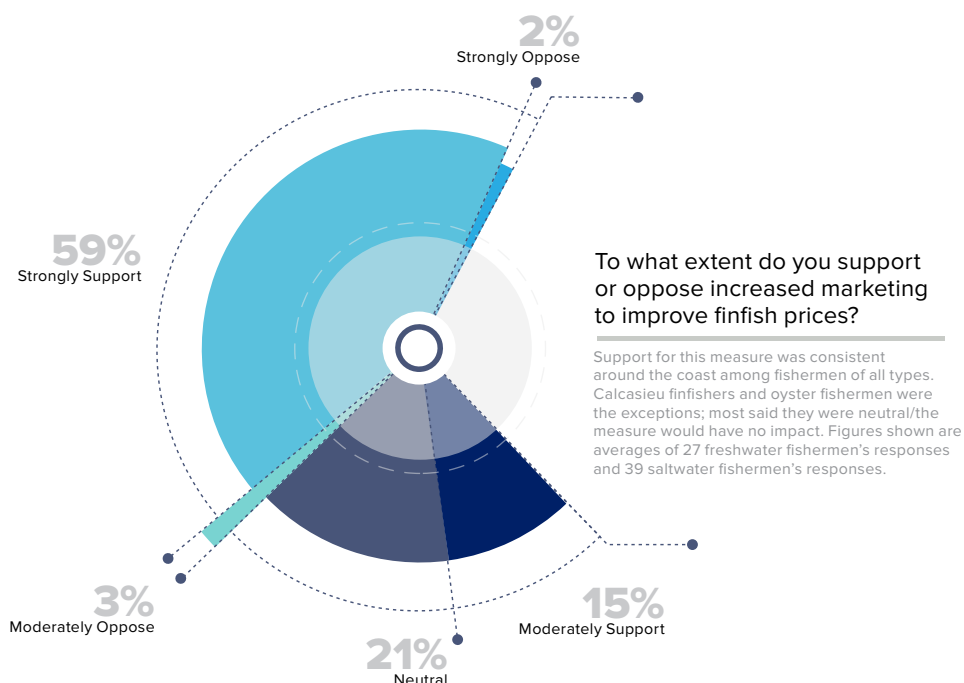
**freshwater finfishers:** 16 out of 27 or 59% were either somewhat or very likely.

**saltwater finfishers:** 23 out of 39 or 59% said they were either somewhat or very likely.



## Finfishers Weigh In: Responses to Survey Questions

- Overall, finfishers were not interested in supplementing their catches with or switching their focus to crabs, shrimp, or oysters. This was a consistent result across regions, with the sole exception of finfishers who primarily fish in Pontchartrain; these respondents showed some interest in increased crabbing. About 35% of people surveyed who fish primarily in Barataria (8 out of 22 respondents) and Breton (6 out of 18 respondents) said they were very likely to increase the amount of shrimping they did, while roughly a quarter of other fishermen in these two regions said they were very unlikely to do so.
- Finfishers had mixed views about changing the areas where they fished, with more being likely than unlikely. Fishing for different fish species also prompted mixed reviews.
- Freshwater finfishers were less likely than most other fishermen, of all types, to consider modifying their boats to reduce fuel use.
- Overall, even if they had help to do so, finfishers were not eager to consider increasing the number of trot lines they used. Opposition was less marked in responses from those fishing in Atchafalaya, Barataria, and Pontchartrain.
- Similarly, even if they had help to do so, most finfishers surveyed, except for those who fish primarily in Pontchartrain, were very unlikely to increase trawling.
- A majority of finfishers supported increased funds for marketing Louisiana finfish in order to increase prices. Five out of 11 respondents who primarily fish in Calcasieu said they felt neutral about/anticipated no impact from this proposal; 4 out of 11 said they strongly supported the proposal.



### In Their Own Words

(written comment sent in with mail-in survey):

"I only fish for buffalo and carp for bait and do pretty little of that these days. Only for my needs and a few catfish for the family to eat. But [I] still get my commercial license each year. When coastal changes start to decrease a species significantly, [we] need to limit [fishing of] those species. I believe the LWLF department does a good job on this. One example was the bowfin or "choupique," [which] was harvested for the eggs. LWLF now has a season on them."







## In Their Own Words

(written comment from mail-in survey):

“Any fish that are legal to take recreationally should be legal to take commercially. Any fish allowed to be taken commercially should be available to all Louisiana residents, not only a select few. If you can purchase a commercial license you should be able to fish for every commercial species in Louisiana waters.”

(written comment from mail-in survey):

“All water should be public; if a boat can float it is not land and therefore should be available for commercial use!!!”

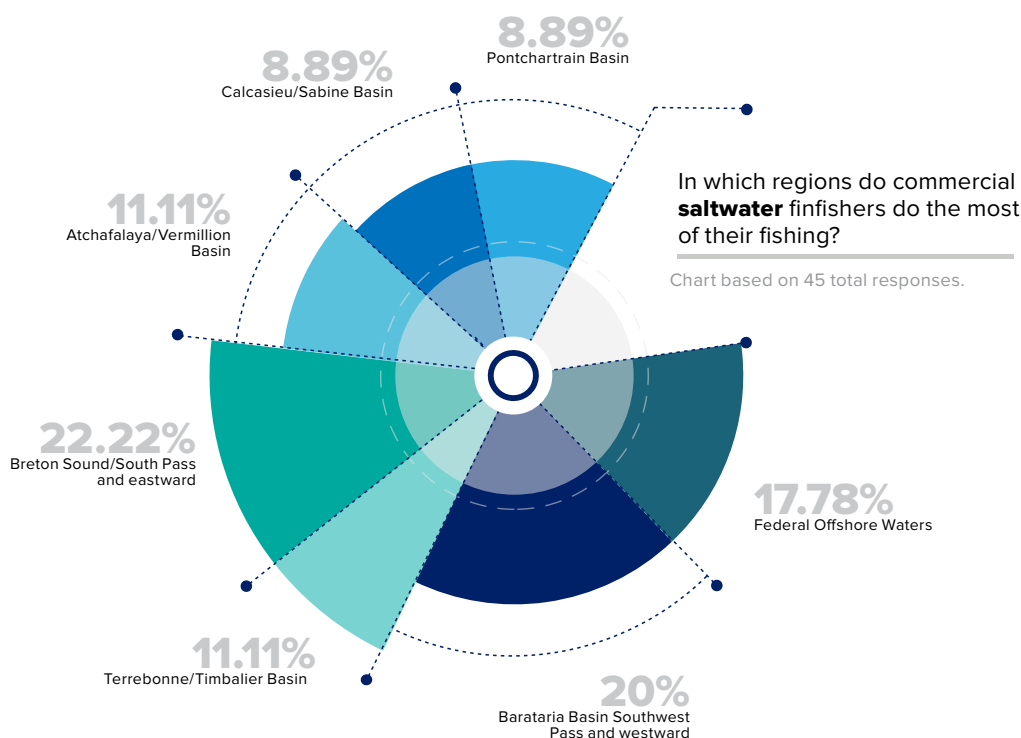
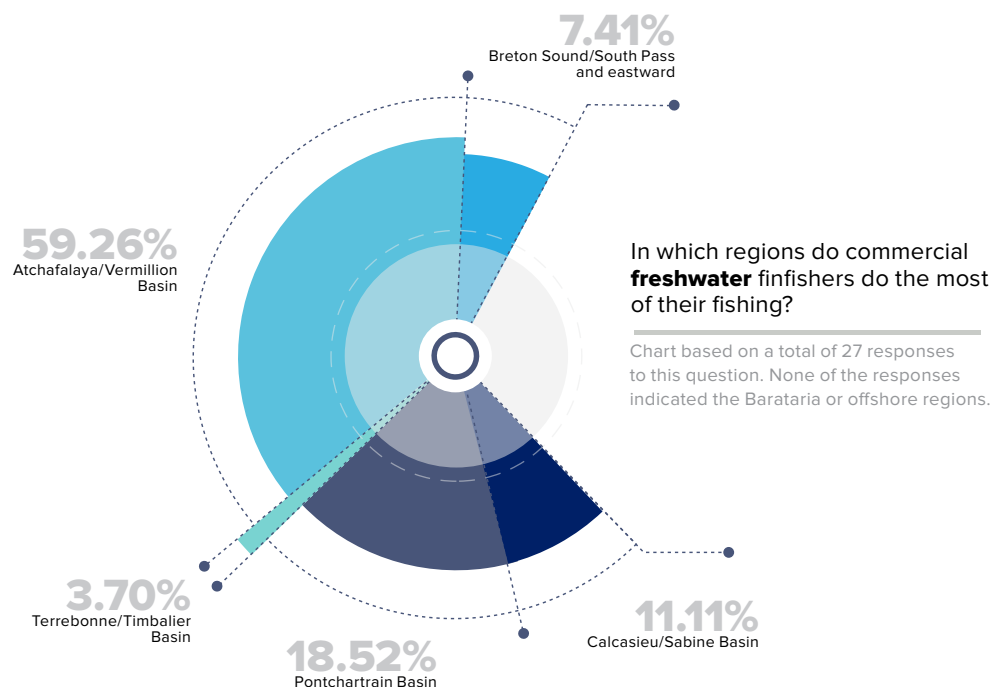
(written comment from mail-in survey):

“The number of catfish processors (wild caught) in the past 10 years has dropped to 2 in my area from 10 to 15. Several quit because USDA wants to put inspections in their plants...”

See all survey results and comments at our website: [laseafoodfuture.com](http://laseafoodfuture.com)

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## Finfishers Share Ideas About the Way Forward





## In Their Own Words

(written comment from online survey):

**"I am a freshwater fisherman and get less for our catch than I did in 1980. We need help with these Asian Carp (bigheads), and we need someone to help us (fishermen) to market our fish because we are dying out."**

(written comment from online survey):

**"In my area of fishing we have a very big problem with alot of agriculture chemicals and fertilizer [that] run off from the fields to the canals and lakes, killing our fisheries."**

(written comment from online survey):

**"The priority should be to restore the coastline of Louisiana, and the fishing industries will adjust accordingly. Without a coastline there will be no fishing industry in Louisiana, just a sea wall at the towns & cities near the coast."**

One theme ran through comments from finfishers, a theme that was prevalent throughout our entire survey: preserving species and ecosystems wasn't easy, especially

because of the checks and balances required among many different kinds of fishermen, landowners, and permit holders.

## Finfishers Weigh In :

These are just some of the many comments we received at regional meetings and in surveys.

**Regulation.** Different views on finding the right balance.

- Some finfishers opposed proposals to limit the species allowed to be caught. These commenters wanted more flexibility in what they could catch as well as parity with what they saw recreational fishermen being allowed to do. Fewer commenters saw catch limits as useful ways to help conserve at risk species.
- Public ownership of waterbottoms was mentioned several times, with fishermen frustrated that they could not access areas of the coast that were once considered land but are now bayous, open bays, and other waterways. Fewer commenters wanted to continue restricting fishing in these areas to preserve fish stocks.
- Rules governing federal oversight of catfish processing came in for criticism.

**The role of government assistance.** The majority of responders agreed that marketing assistance would help raise prices, and they liked this idea. Other types of government assistance mentioned in the finfisher comments included:

- Reducing water pollution
- Reducing invasive species, particularly Asian carp
- Restoring the coast; using rocks to block salt water
- Supporting the Rigs to Reefs program
- Helping Lake Pontchartrain maintain a better balance of fresh and saltwater; several commenters criticized river diversions as contributing to this problem.





## Charter Boat Captain Responses

Approximately 100 charter boat captains completed our mail-in survey. We asked them to describe how coastal changes were already affecting their work or would affect their work in the future. Many captains said present effects of

coastal change were making their work much or somewhat worse. Like many fishermen throughout the coast, many captains were unsure what future effects would be, especially in 10 years and beyond.





## Charter Boat Captains Weigh In: Responses to Survey Questions

- For captains who fish primarily in the Pontchartrain region, six out of the 11 respondents who answered this question, or 55%, were very likely to take trips to different areas as a result of coastal change. Respondents who fish primarily in Breton were fairly open to this idea as well (a total of 14 out of 26 people, or 54%, said they were either very likely or somewhat likely to consider it). Of those fishing in other regions, reviews were mixed.
- Opting to work more in another field besides leading charter trips as a result of coastal change was most popular among charter captains fishing primarily in Calcasieu; otherwise people were either not sure about or very unlikely to try this option.
- On the question of whether charter captains were likely to stop charter boat fishing altogether, 228 people across the coast said they were very unlikely to do so, and 212 people said they were not sure.
- Many people strongly supported a moratorium on new charter boat licenses (average of 41% across regions), except for those leading trips in Atchafalaya, where opponents outnumbered supporters.
- Reducing catch limits to shorten trips and perhaps make it possible to run more charter trips per day had slightly more opponents than supporters. People were more opposed if they fished in Atchafalaya, Barataria, and Calcasieu and most supportive if they fished primarily in Pontchartrain, Terrebonne, and federal waters.
- Improving access to private waterbottoms was popular throughout the coast. Those primarily fishing in Barataria (29 out of 36 total respondents) and Terrebonne (19 out of 25 total respondents) strongly supported this measure. Roughly half of all other people who answered this question strongly supported access to private waterbottoms.







## Anglers



### In Their Own Words

(written comment from online survey):

**“Expectations need to adjust with the changing coast. What was done 10 years ago may have to change, and attitudes/opinions need to also change.”**

(written comment from online survey):

**“Anglers need to understand the importance of self reporting. I like the idea of the random raffle for self reporting snapper this season. Ideas like that for all species could/ should help.”**

See all survey results and comments at our website: [laseafoodfuture.com](http://laseafoodfuture.com)

## Many voices make themselves heard

In spring 2019, we used the Louisiana Department of Wildlife and Fisheries eblast system to alert recreational fishermen that they could complete an online survey through Survey Monkey. We contacted 157,749 people and received 4,787 responses. The preliminary analysis below provides an initial take on what recreational anglers told us.

When asked how recreational fishing has already been altered in the last five years as a result of coastal change, 46% out of 4,140

people said fishing had become somewhat worse. When asked respondents how they expected recreational fishing to change over the next five years, 32% out of 4,020 people said they thought it would be somewhat worse, 23% said much worse, and 27% said they were not sure. Respondents' opinions shifted slightly when they were asked how fishing would change in ten years and beyond; 35% of 4,024 people thought recreational fishing would be much worse, 33% weren't sure, and 20% thought fishing would be somewhat worse.



||||| 71%

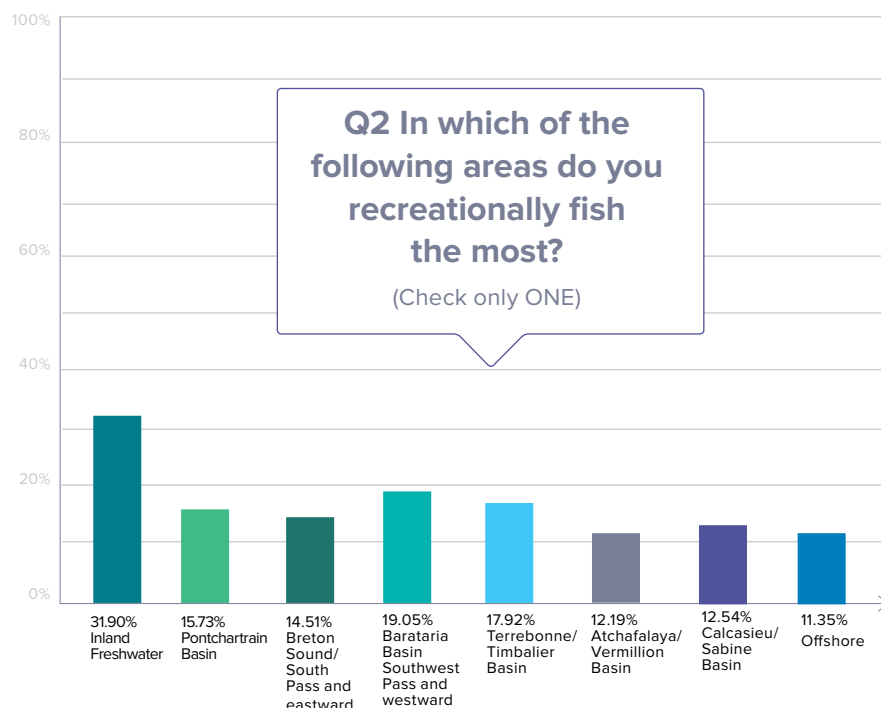
people identified as recreational saltwater anglers (3,223 out of 4,537 responses)

||||| 41%

people identified as recreational freshwater anglers (1,855 out of 4,537 responses)

||||| 7%

people identified as "other." (326 out of 4,537 responses)



Source: Results from Online Recreational Survey (Survey Monkey). Based on 4,520 total responses.

## Anglers Weigh In:

(responses to survey questions)

We asked recreational anglers to consider five possible strategies for adapting to changing conditions. Responses varied, but most strategies prompted fairly negative or wait and see reactions.

- Take fewer fishing trips (4,131 responses): Most people were either unlikely (46%) or unsure (26%) about this option.
- Fish in different basins (4,099 responses): This question prompted a mixed reaction. Somewhat likely, uncertain, somewhat unlikely, and very unlikely each made up approximately 22% of the responses. Only 10% of respondents were very likely to fish in a different basin.
- Modify gear or equipment (4,089 responses): Very unlikely and uncertain each captured about 26% of the responses. As with other strategies, about as many people were unsure about this option (26%) as were likely to give it a try.
- Modify fishing vessel (4,080 responses): Very unlikely was the clear preference for this question, gaining 38% of the responses. Many people were also unsure (24%), and 18% were somewhat unlikely to consider this option.



### In Their Own Words

(written comment from online survey):

**“What can I do? Be more conscious of the adverse changes and the causes of such to be able to...be part of the solution instead of part the problem.”**





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### In Their Own Words

Words (written comment from survey):

**"I'm okay with reduced bag limits, but closing seasons for extended periods of time can make an expensive offshore trip seem not worthwhile."**

(written comment from survey):

**"Loss of wetlands will force us to learn new areas and adapt to different techniques."**

See all survey results and comments at our website: [laseafoodfuture.com](http://laseafoodfuture.com)



## Anglers Share Ideas About the Way Forward.

In their written comments, anglers showed a pragmatic awareness of the changing coast and how it was affecting fisheries. These are just a few of the many written comments we received from online surveys.

- Managing fisheries. Some commenters wanted to increase limits for species like snapper. Others valued limits as a way to preserve the resource, and recommended measures such as reducing the limit on speckled trout to 10 fish per person. Related management ideas included:
  - fishing for what is abundant in any given area, which could mean changing target species;
  - making enforcement of catch limits consistent among recreational and commercial fishers.
- Coastal restoration issues. Opinions ran the gamut, with some commenters wanting to reduce freshwater flow from the Mississippi River and others wanting to allow more fresh water into coastal basins. Some commenters wanted more dredging, while others did not like the muddy water that dredging causes. One common theme was the need to support action to save the coast, even if people had varying ideas of how that could best be done.
- Access issues. Like commercial finfishers, anglers had many opinions about how access to fishing grounds should be managed. Comments included:
  - Remove the laws relating to trespass on navigable waters. Allow access to any waters that will "float your boat."
  - Open waterways that are blocked by gates so that anglers can access all state freshwater fisheries.



- Practical measures the state can undertake to support recreational fishing and increase public awareness.
  - Build more public boat launches and public fishing piers.
  - Make more lands and lakes available for public use.
  - Develop recreational sites next to diversion areas so public can see and understand project.
  - As salinities change, post salinity levels on multiple media sources.



## How likely are you to be satisfied with catching fewer fish as a result of decreased productivity in certain areas?

Based on a total of 3,891 responses.



### In Their Own Words

(written comment from survey):

“...allow Mother Nature to repair the coast and the fisheries will adjust on their own.”

(written comment from online survey):

“As the land recedes so does the coastal fishing. More of it is on what used to be private land and now is water. Protect the landowners by fishing at own risk as it is in the gulf and bays. But if you can get to the water and fish without passing through or over a man-made gate or dam that [encloses] a private waterway from back to bank, then that body of water should be fishable by [the public].”







**In Their Own Words**

(written comment from survey):

“Get folks thinking about what the options will be; for example, we can close the amberjack season when the quota is hit, or we can restrict amberjack fishing to one fish per boat and keep the season open most of the year. We can maintain our restoration activities at the current pace, or triple them if \$X is added to each license, and that speed up would result in xxx [result]. If people know what the trade offs are, and how they could help, it may be possible to get ahead of some issues.”



This report offers a preliminary summary of the more than 4,000 responses we received from anglers. See the complete survey results for anglers and all other fisheries on our website: [laseafoodfuture.com](http://laseafoodfuture.com).

