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Sea Grant
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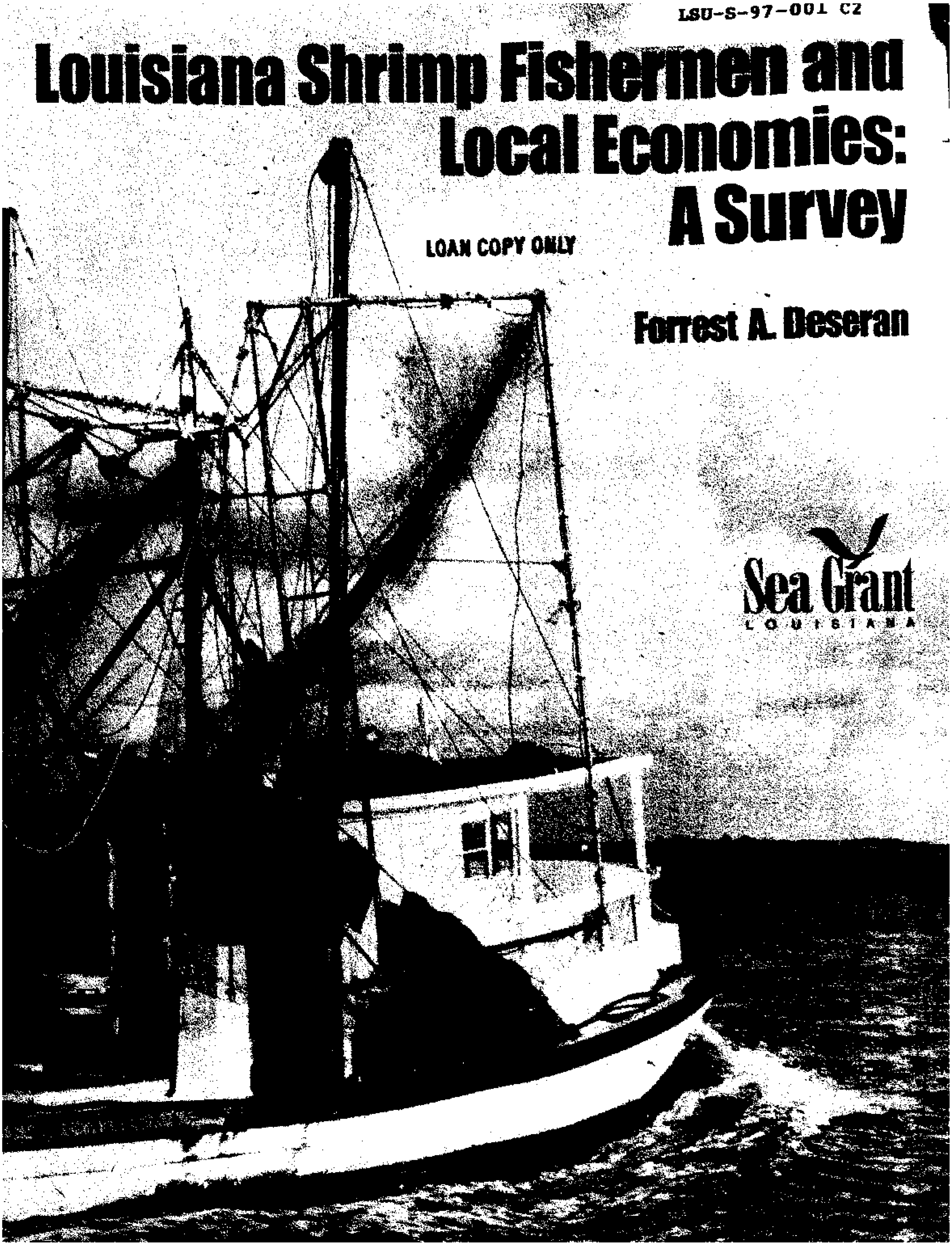

LOUISIANA SHRIMP FISHERMEN AND LOCAL ECONOMIES:
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by

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TABLE OF CONTENTS

Page

LIST OF TABLES

INTRODUCTION

This paper reports selected findings from a telephone survey of Louisiana shrimp fishermen. The survey is part of a larger study being conducted by social scientists at Louisiana State University's Louisiana Population Data Center that examines the social and economic implications of changes occurring in Louisiana's coastal industries and was supported by the Louisiana Sea Grant College Program and the Louisiana Agricultural Experiment Station

Background: Problems Facing the Shrimping Industry

The Louisiana shrimp industry, which accounts for over half of the total Louisiana seafood harvest, is faced with problems that have far-reaching economic and social implications. One of these problems is the overcapitalization of the fishery. Simply put, there are too many fishermen relative to the amount of shrimp available for harvest. This has reduced profits and has made it increasingly difficult for many fishermen to stay in business. In addition, increased Asian and Latin-American shrimp imports have driven down domestic shrimp prices and are threatening Louisiana's value-added industries.

Louisiana's rapidly disappearing wetlands also present an urgent problem for the industry. Marsh loss and the privatization of public water bottoms are depriving the shrimp fishery of suitable estuarine habitat for shrimp. Beyond these economic and environmental issues, Louisiana shrimp fishermen have been faced with regulatory changes that are having and will continue to have a profound effect on their activities. For example, the requirement that shrimpers use Turtle Excluder Devices (TEDs) has created much public debate and opposition from shrimpers, who contend that TEDs reduce harvests.

Although much attention has been directed toward the problems and pressures facing the Louisiana shrimp industry, little systematic information is available about those most directly affected by changes in the industry--the shrimp fishermen. Our purpose for conducting this survey was to learn more about these fishermen, their families, and their communities. Without such information we cannot adequately assess the social consequences of the changes occurring in the fishery.

The Sample

The shrimp fishermen who participated in this survey were randomly selected from the 1994 fishing license records of the Louisiana Department of Wildlife and Fisheries. Those included in the sample were sent letters of introduction that explained the project and alerted them that they would be contacted by phone. We used 1994 license records to draw our sample because we were interested in shrimping activities for the full year preceding the survey. Information from the license records included, among other things, addresses, phone numbers, types of gear, and vessel length.

For our sample, we targeted shrimp fishermen who are the captains of shrimp vessels 35 feet or longer. We used this vessel length criterion to insure that the respondents included those for whom shrimp fishing is at least a major source of livelihood. Although our sample may not represent all shrimp fishermen, it is representative of those who account for the largest share of the commercial harvest.

The Instrument

Prior to constructing the survey instrument, we consulted with selected shrimp fishermen, seafood industry representatives, local officials, marine agents, and other persons knowledgeable about the industry. In addition, we reviewed literature and news media accounts that dealt with the Louisiana shrimping industry. Drawing upon what we learned from this review, we assembled a set of questions dealing with shrimp fishing. The survey included questions about the following topics:

- Characteristics of fishing operations
- Individual demographic characteristics (age, ethnicity, etc.)
- Family and household characteristics
- Social networks
- Employment and earnings outside of shrimping
- Satisfaction with community, work, and lifestyle
- Future plans
- Opinions about the industry's major problems and their solutions

Telephone Interviews

For several reasons, we decided to conduct our interviews using the telephone rather than a mail survey or face-to-face interviews in the home. First, because phone surveys are much more cost effective than face-to-face or mail surveys, we were able to interview a larger number of respondents. This is important because the greater the number of cases, the more robust are the statistical findings. Second, phone surveys are less intrusive for respondents than face-to-face interviews conducted in the home. Third, because shrimp fishermen have relatively irregular work schedules, making contact by phone was more efficient than arranging for personal contacts at homes or places of work. Finally, survey researchers have found that subjects are more willing to complete phone interviews than they are to return mailed surveys or to arrange to meet interviewers for face-to-face interviews.

The interviews were done from the Louisiana Population Data Center's Survey Research Laboratory using a Computer-Aided Telephone Interviewing (CATI) system. A CATI system allows interviewers (in this case, graduate and undergraduate students) to read survey questions to respondents from individual work station screens and to enter responses via their individual work station keyboards. Interviews are managed by a central work station that selects the phone numbers either randomly or from a predetermined list. The CATI system determines the correct order of questions for each respondent and stores the responses on the file server (central work station). The software alerts interviewers of any inconsistencies or erroneous entries. This ongoing data "cleaning" insures minimal errors.

It is important to note that as each interview was taking place, a unique and untraceable identification number was assigned to the information being entered. Once an interview was completed, the respondent's identity could not be linked with the information. This insured that all answers were anonymous and confidential.

SURVEY FINDINGS

Response Rate

Twelve interviewers (LSU undergraduate and graduate students) completed 424 interviews between March and June of 1995. Almost all of the surveys were conducted between 4:30 p.m. and 8:30 p.m. during week nights and between 1:00 p.m. and 8:00 p.m. during weekends. The interviews ranged from 15 to 45 minutes, with an average of about 30 minutes per interview.

Because of the onset of the shrimping season, it was often necessary to make numerous call-backs. Even though many respondents were difficult to reach, most shrimp captains were very cooperative once they were contacted. A total of 534 shrimp fishermen were reached, of which 105 declined to participate and five did not finish after beginning the survey. This is a 79 percent completion rate, which is considered a very good rate for survey research.

Vessel Length

The size of a captain's shrimping vessel represents an investment and commitment to fishing as a livelihood. The larger the vessel, the more the fisherman has an economic stake in the industry. For this reason, we have organized the survey findings according to vessel size. An examination of the distribution of vessel lengths in our sample suggests three logical size categories—small vessels (35-49 feet), medium vessels (50-59 feet), and large vessels (60 feet or longer). Although these categories can be only a rough measure of a captain's involvement in shrimping, by presenting the findings in this way we may get some indication of whether the extent of fishermen's investment in shrimping (as reflected by vessel size) is related to other factors.

Vessel length in our sample ranges from 35 to 98 feet. The average length for all of the vessels in the sample is 56 feet. By size category, 27.5 percent of those surveyed operate small vessels (35-49 foot), 36.5 percent operate medium vessels (50-59 foot), and 36.0 percent operate large vessels (60 foot and over).

Individual Characteristics

Parish. Tables 1 and 2 summarize the individual characteristics of those interviewed, including parish of residence, age, education, and ethnicity. As shown in Table 1, two coastal parishes are home for over half of the fishermen; over one-third reside in Terrebonne Parish and about 20 percent live in Lafourche Parish. The residences of just more than 11 percent are in Jefferson Parish with the remainder found throughout 15 other Louisiana parishes.

Table 1. Parish of Residence by Vessel Size

Parish	Full Sample (N=422)	Vessel Length (feet) 35-49 (N=116)	50-59 (N=154)	60 + (N=152)
Terrebonne	**33.9**	34.5	39.0	28.3
Lafourche	**20.1**	20.7	18.2	21.7
Jefferson	**11.6**	12.1	10.4	12.5
Vermilion	**6.2**	3.5	4.6	9.9
St. Bernard	**4.7**	5.2	6.5	2.6
St. Mary	**4.5**	1.7	5.2	5.9
Plaquemine	**4.3**	6.9	2.6	4.0
Cameron	**3.6**	2.6	6.5	1.3
Orleans	**1.9**	1.7	0.0	4.0
St. Tammany	**1.7**	1.7	2.0	1.3
Iberia	**1.4**	1.7	0.7	2.0
Lafayette	**1.4**	0.9	0.7	2.6
Calcasieu	**0.9**	0.9	0.7	1.3
St. Charles	**0.9**	0.9	0.7	1.3
Jefferson Davis	**0.7**	0.0	1.3	0.7
Acadia	**0.2**	0.9	0.0	0.0
Assumption	**0.2**	0.0	0.7	0.0
St. John the Baptist	**0.2**	0.9	0.0	0.0

Age. The average age of the shrimp captains in our sample is 46.6 years. The age distribution of shrimp captains is skewed toward the older age categories, with less than 17 percent under 35 and more than 30 percent over 54. We find some variation in age categories by vessel size, with a disproportionate number of captains from 35 to 44 who operate larger vessels (see Table 2).

Education. Table 2 shows the highest completed grade of schooling. The educational attainment levels reported by the fishermen are comparatively low. Approximately 43 percent reported that they had obtained a high school diploma. This is about 25 percentage points lower than the average for Louisiana adults (68.3 percent; 1990 U.S. Census).

Table 2. Selected Individual Characteristics of Shrimp Boat Captains by Vessel Length

Individual Characteristics	Full Sample	Vessel Length (Feet) 35-49	50-59	60+
How old are you?	**(N=395)**	(N=108)	(N=149)	(N=138)
Under 25 years old (percent)	**1.5**	2.8	1.3	0.1
25 - 34	**15.4**	14.8	17.4	13.8
35 - 44	**30.1**	30.6	24.8	35.5
45 - 54	**22.5**	25.9	20.1	22.5
55 - 64	**24.1**	17.6	30.2	22.5
65 and over	**6.3**	8.3	6.0	5.1
Mean Age (years)	**46.7**	46.5	47.3	46.0
Educational Attainment				
What is the highest grade of schooling you completed?	**(N=397)**	(N=108)	(N=150)	(N=139)
8th Grade or less	**40.1**	45.4	41.3	34.5
Some High School	**17.1**	11.1	20.0	18.7
High School Diploma or more*	**42.8**	43.6	38.7	46.8
Some College	**7.6**	7.4	4.7	10.8
College Degree or Higher	**3.0**	1.9	3.3	3.6
Did your father complete high school? (percent yes)	**33.1**	32.4	31.5	35.3
Did your mother complete high school? (percent yes)	**40.3**	39.8	39.6	41.3
Ethnicity				
Do you consider yourself primarily	**(N=395)**	(N=108)	(N=149)	(N=138)
Cajun/Creole/French	**69.9**	74.1	73.2	63.0
White	**18.7**	17.6	20.1	18.1
Vietnamese**	**4.6**	0.9	0.0	12.3
American Indian	**2.8**	2.8	3.4	2.2
Black	**0.5**	0.0	0.7	0.7
Other	**3.5**	4.6	2.7	3.6

*Percentages also include those with some college, college degrees, or more
**Vietnamese are under-represented in the sample.

Educational attainment varies somewhat according to vessel length. Slightly more than 46 percent of the captains of large vessels have at least a high school diploma compared with 38.7 percent and 43.6 percent of the captains of medium and small vessels respectively (Figure 2). However, the differences are not great. Regardless of the size of the vessel, educational attainment is well below the average for the state.

The educational attainment levels of the parents of shrimp boat captains are also reported in Table 2. While the high school completion rate for captains in our sample was low, the percent of their fathers who graduated from high school was much lower (33.1

percent). Shrimpers' mothers had a higher educational attainment level than their fathers (40.3 percent of the mothers graduated from high school). The variation in parental educational attainment across vessel size categories was minor.

Ethnicity. The majority of those we interviewed consider themselves to be Cajun French (Table 2), as more than 73 percent of the small- and medium-sized vessel captains selected this category. Among the large vessel captains, 63 percent identified themselves in this category. The second most frequently reported category is white (18.7 percent). Vietnamese fishermen made up 4.6 percent of our sample. All but one of the Vietnamese who participated in our survey captained large vessels, accounting for 12.3 percent of the large-vessel captains. Slightly less than 3 percent of our sample identify themselves as American Indians and less than 1 percent of the fishermen identify themselves as black.

Marital Status and Household Size

Table 3 contains findings for marital status and household size. In marked contrast to the percent of married couples found in the adult population in Louisiana as a whole (55.2 percent; 1990 U.S. Census), the percent of shrimp captains who are married is very high (91.4 percent). Single or never-married captains account for only 4.8 percent of the sample and the percent divorced (3.4 percent) is less than half of that for the state as a whole (7.8 percent). The number of persons per household varies considerably by vessel size. We find a disproportionate number of large households (i.e., those with five or more persons) among the large vessel captains (32.1 percent versus 19.1 and 14.4 percent for small- and medium-vessel captains, respectively).

Table 3. Selected Household Characteristics of Shrimp Boat Captains by Vessel Length

Selected Household Characteristics	Full Sample	Vessel Length (Feet) 35-49	50-59	60+
Marital Status	**(N=417)**	(N=115)	(N=153)	(N=149)
Married/Living with Partner	**91.4**	91.3	93.5	89.3
Divorced	**3.4**	5.2	1.3	4.0
Single/Never Married	**4.8**	2.6	4.6	6.7
Number of Persons in Household	**(N=417)**	(N=115)	(N=153)	(N=149)
One	**3.4**	3.5	1.3	5.4
Two	**29.0**	33.9	34.0	20.1
Three	**20.9**	17.4	23.5	20.8
Four	**24.7**	26.1	26.8	21.5
Five or more	**22.1**	19.1	14.4	32.2

Vessel Ownership and Mortgages. Table 4 contains findings for vessel ownership, mortgage amount, and vessel age. Nearly all (94.6 percent) of the respondents captain their own vessels. A slightly lower percent of large-vessel captains own their boats than do smaller vessel captains. About one-fourth of the owners are making payments on their vessels and for the majority of these captains their mortgage is less than half of the value of the boat. As expected, a much higher proportion of the large-vessel owners reported carrying a mortgage on their vessels than did owners of smaller vessels.

Shrimp Fishing Operation Characteristics

Sales of Shrimp. In response to the question of where they sell their shrimp, nearly 90 percent of the captains reported that most of their sales are to local seafood processors and wholesalers (Table 5). However, where respondents sell their shrimp varies considerably according to vessel size. Captains of larger vessels are more likely to sell to local seafood processors, while smaller vessel captains are more likely to sell their catch to local wholesalers and ice houses.

Table 4. Vessel Ownership and Vessel Age by Vessel Length

Selected Characteristics	Full Sample	Vessel Length (Feet)		
		35-49	50-59	60+
Do you own the boat that you normally operate?	**(N=424)**	(N=116)	(N=154)	(N=154)
(Percent yes)	**94.6**	96.6	94.2	93.5
Do you owe money on your boat?	**(N=401)**	(N=112)	(N=145)	(N=144)
(Percent yes)	**25.2**	14.3	18.6	40.3
How much of the value of the boat is mortgaged?	**(N=102)**	(N=16)	(N=27)	(N=59)
Less than 25%	**32.4**	31.3	29.6	33.9
25-49%	**35.3**	43.7	37.0	32.2
50-74%	**18.6**	12.5	11.1	23.7
75% or more	**10.8**	12.5	18.5	6.8
Don't Know	**2.9**	0.0	3.7	3.4
In what year was your boat built?	**(N=401)**	(N=112)	(N=145)	(N=144)
Prior to 1960	**12.2**	8.9	11.0	16.0
1960-1969	**7.2**	8.9	8.3	4.9
1970-1979	**27.2**	29.5	28.3	24.3
1980-1989	**43.6**	42.0	42.1	46.5
Since 1989	**7.7**	8.0	7.6	7.6
Don't Know	**2.0**	2.7	2.8	0.7

Table 5. Selected Shrimp Fishing Operation Characteristics by Vessel Length

		Vessel Length (Feet)		
Operation Characteristics	Full Sample (N=424)	35-49 (N=116)	50-59 (N=154)	60+ (N=154)
To whom did you sell most of your shrimp during 1994?				
Local Seafood Processors	61.3	50.9	61.0	69.5
Local Wholesalers	27.6	34.5	28.6	21.4
Local Ice Houses	8.7	11.2	9.1	6.5
Directly to the Public	0.7	0.9	0.0	2.0
Don't Know/No Response	1.4	2.6	1.3	0.7
For how many years have you been shrimping?				
5 or fewer years	4.3	4.3	2.6	5.8
6-15 years	19.3	19.0	14.9	24.0
16-25 years	30.0	30.2	30.5	29.2
26-35 years	17.9	17.2	18.8	17.5
More than 35 years	26.9	25.9	32.5	22.1
Don't Know	1.7	3.5	0.7	1.3

Years of Experience. Collectively, the captains in our survey have worked many years operating shrimp boats. The average length of time spent captaining a shrimp boat is 21.3 years. Over one-fourth of the captains have more than 35 years of experience shrimping, while less than 3 percent of the sample entered the business within the last five years (Table 5). Consistent with findings for age noted above, large vessel captains tend to have less years of experience than smaller vessel owners.

Employment Outside of Shrimp Fishing

American families increasingly must rely on income from multiple job-holding by household heads and from employment of other household members in order to maintain a desired standard of living. An important goal of our survey was to discover the extent to which shrimp captains supplement their incomes from earnings outside of the shrimp industry. Such information is important in light of the economic uncertainties facing the fishery.

Although shrimp fishing is the main income source for respondents in our sample, a considerable number of the captains, especially those with smaller vessels, held second jobs outside shrimping. As Table 6 shows, when asked about earnings from work outside shrimping, over half (54.4 percent) of the smaller vessel captains responded affirmatively. Outside jobs are held by 36.6 percent of the shrimpers in the medium vessel category and by 23.7 percent of the larger boat category shrimpers. Of those who hold other jobs, most (54.9 percent) reported that they worked for someone else. However, captains of the smaller vessels

Table 6. Employment in Addition to Shrimping in 1994 by Vessel Length

	Full Sample	Vessel Length (Feet) 35-49	50-59	60+
In 1994, did you earn any income from any kinds of work OTHER THAN shrimping?	**(N=415)**	(N=114)	(N=153)	(N=148)
(percent yes)	**36.9**	54.4	36.6	23.7
IF YES				
Were you self-employed or work for someone else?	**(N=153)**	(N=62)	(N=56)	(N=35)
Worked for someone else	**54.9**	46.8	57.1	65.7
Self-employed	**44.4**	53.2	42.9	31.4
Don't Know/No Response	**0.7**	0.0	0.0	2.9
How much of your personal 1994 income was from all of your non-shrimping jobs?	**(N=152)**	(N=62)	(N=56)	(N=34)
Less the 10%	**20.4**	12.9	25.0	26.5
10% to 25%	**21.1**	11.3	25.0	32.4
26% to 50%	**25.0**	25.8	28.6	17.7
51% to 75%	**11.2**	16.1	8.9	5.9
More than 75%	**18.4**	29.0	7.1	17.7
Don't Know/No Response	**4.0**	4.8	5.4	0.0

are more likely to be self-employed in their nonshrimping work while larger vessel operators are more likely to work for someone else.

Not surprisingly, captains of smaller vessel with second jobs earn a higher proportion of their income from those jobs than do captains of larger vessels. Approximately 45 percent of the small vessel captains earn over half of their income from other jobs. This is relatively high compared with the 16 percent of the medium-vessel captains and the 23.6 percent of the large-vessel captains for whom second jobs account for more than half their incomes.

Table 7 contains findings for the types of second jobs reported by shrimp fishermen. We have categorized these jobs according to whether respondents claimed to have been self-employed or to have worked for someone else. Also, because of the large presence of the oil and gas industry in the Gulf region, we have reported oil-industry related jobs separately.

Employed By Someone Else. As noted above, most captains who hold jobs in addition to their shrimping work are employed by someone else (54.9 percent). While commercial fishing is a predominant type of self-employment as a second job (61.8 percent), very few of those we interviewed who earn a second income by working for others are engaged in fishing (8.4 percent). Well over one-third (40.9 percent) of this group of captains worked at jobs that required skilled labor (e.g., mechanics, carpenters, welders). Jobs as transport operators (marine vessels) and work in the service industry (e.g., retail sales, real estate) are also reported, but much less frequently (14.5 percent in each category).

Table 7. Type of Employment in Addition to Shrimping by Vessel Length

	Full Sample	Vessel Length (Feet)		
		35-49	50-59	60+
If you earned any income from work OTHER THAN shrimping, what kind of job did you have?				
EMPLOYED BY SOMEONE ELSE	**(N=83)**	(N=29)	(N=32)	(N=22)
Fishing (Other Than for Shrimp)	**8.4**	6.9	9.4	9.1
Marine Vessel Operation (Other than Fishing)	**14.5**	34.5	9.4	9.1
Unskilled Labor	**16.8**	0.0	12.5	31.8
Skilled Labor	**40.9**	34.5	56.3	27.3
Services (clerical, professional, personal)	**14.5**	17.2	12.5	13.7
Other Jobs	**4.8**	6.9	0.0	9.1
SELF EMPLOYED	**(N=68)**	(N=32)	(N=24)	(N=12)
Fishing (Other Than for Shrimp)	**61.8**	68.8	62.5	41.7
Marine Vessel Operation (Other Than Fishing)	**1.5**	0.0	4.2	0.0
Unskilled Labor	**1.5**	0.0	4.2	0.0
Skilled Labor	**14.7**	9.4	16.7	25.0
Services (clerical, professional, personal)	**10.3**	9.4	8.3	16.7
Other Jobs	**10.3**	12.5	4.2	16.7
OIL INDUSTRY-RELATED *	**(N=9)**	(N=1)	(N=5)	(N=3)
Marine Vessel Operation (Other Than Fishing)	**2**	0	1	1
Unskilled Labor	**0**	0	0	0
Skilled Labor	**3**	0	2	1
Services (clerical, professional, personal)	**2**	0	1	1
Other Jobs	**2**	1	1	0

*Responses for oil industry are included in the categories above in this table. Numbers instead of percentages are reported due to the low Ns.

Self-Employment. Turning to findings for self-employment, we see that the predominant type of nonshrimping work reported by respondents involved other types of commercial fishing. Although fishing is the most frequently reported type of self-employment for all categories of vessel size, small boat captains are the most likely to report other kinds of fishing as alternative employment (68.8 percent compared to 62.5 and 41.7 percent for medium and large boat captains respectively). Work involving skilled labor and services are the next most frequently reported types of self-employment as second jobs, especially for captains of the large vessels.

Although we had anticipated that jobs related to the oil industry in the Gulf would account for a large proportion of nonshrimping jobs, our findings indicate that very few jobs are in this category. Because the numbers are so small, we report the actual numbers instead of percentages in Table 7.

Prior Work Experience

In addition to information about the kinds of extra jobs held by shrimp captains in the preceding year, we asked about the kinds of full-time jobs that they may have held prior to entering shrimping (Table 8). Although shrimping is the only full-time job for the majority of respondents, a sizable proportion (37.8 percent) reported that they had other full-time jobs prior to entering shrimping. Captains who operate the largest vessels are the least likely to have had full-time work experience prior to shrimping (29.7 percent, compared with 42.5 and 42.1 percent for midsized and smaller vessels, respectively). Of those reporting full-time employment prior to taking up shrimping, slightly more than half claim to have had only one such job, while the remainder report having held more than one job.

Table 8. Prior Work Experience of Shrimp Vessel Captains by Vessel Length

	Full Sample	Vessel Length (Feet)		
		35-49	50-59	60+
Before 1994, did you hold any full-time jobs (or occupations) other than shrimping? (percent yes)	**(N=415)** **37.8**	(N=114) 42.1	(N=153) 42.5	(N=148) 29.7
If yes, how many jobs have you held?[1]	**(N=157)**	(N=49)	(N=64)	(N=44)
1 job	**52.2**	61.2	46.9	50.0
2 jobs	**15.3**	12.2	15.6	18.2
3 jobs	**12.7**	12.2	15.6	9.1
4 or more jobs	**19.8**	14.3	21.9	22.7
Since you first started working full time, have you ever been unemployed or out of work? (percent yes)	**(N=414)** **22.0**	(N=114) 31.6	(N=153) 20.9	(N=147) 15.7

Unemployment. The findings shown in Table 8 indicate that unemployment has been a greater problem for the captains in the smaller vessel category. Almost 32 percent of the 35- to 49-foot vessel captains report having been unemployed at some point since they started working full-time. Only 20.9 percent of the captains of the 50- to 59-foot vessels have been unemployed, and even fewer of largest vessel captains, 15.6 percent, report having experienced unemployment.

Employment of Other Household Members

Spouses in nearly one-third of the shrimp fishermen's households contributed to family income in 1994 by working in industries outside shrimping (Table 9). Spouses of large-vessel captains are most likely to have had jobs outside of shrimping (36.2 percent), while wives of the midsized vessel captains are the least likely to have such jobs (25.9 percent). In Table 9

Table 9. Employment by Household Members by Vessel Length

	Full Sample	Vessel Length (Feet)		
		35-49	50-59	60+
In 1994, was your spouse employed or self-employed, outside shrimping? (percent yes)	**(N=377)** **31.0**	(N=104) 31.7	(N=143) 25.9	(N=130) 36.2
Household Employment Status (Married Couples Only)	**(N=374)**	(N=104)	(N=142)	(N=128)
Captain Shrimps Only				
Spouse not employed outside of home	**46.5**	36.5	49.3	51.6
Spouse employed outside of home	**16.3**	10.6	14.1	23.4
Captain Shrimps and has Other employment				
Spouse not employed outside of home	**22.1**	31.7	24.7	11.7
Spouse employed outside of home	**15.0**	21.2	12.0	13.3
Did any of your children (over 14 years old) living at home have paying jobs in 1994? (percent yes)	**(N=135)** **34.8**	(N=35) 31.4	(N=49) 34.7	(N=51) 37.3

is a breakdown of the working status of married couple households based upon the employment statuses of both husband and wife. Shrimp fishing is the sole income for less than half of the households. It is interesting to note that wives of large-vessel captains are more apt to have a paying job than wives of small-vessel captains when the husband did not have a second job. However, in cases where the husband has a second job, wives of small vessel captains are more likely to be employed.

In addition to the spouses of the shrimpers in the survey, some children who live at home also are gainfully employed. Approximately 30 percent of the households reported having children over 14 years old living at home. Of these families, 34.8 percent had children with paying jobs outside of the household.[1] Children from the households of captains from the largest vessel category are the most likely to have jobs (37.3 percent compared with 31.4 percent and 34.7 percent of working children from the homes of small and midsized-vessel captains, respectively).

Alternative Work Options and Intentions to Leave Shrimping

An important question in our study is what shrimp fishermen would do if they could no longer harvest shrimp. Table 10 contains the findings for responses to that question. Notably, over half of all respondents said either that they would not seek other avenues of employment or that they had no idea of what they would do. Those who indicated that they would not seek employment (19.0 percent) mentioned options such as retiring, going on welfare, or doing nothing. The most frequent response is that they had no idea of what they would do (35.5 percent). The percent answering this way remains relatively constant across categories of vessel size.

On the other hand, approximately 45 percent of all captains reported that they would find some sort of job outside the shrimping industry if they were no longer able to shrimp. Understandably, the most frequently mentioned type of work involved other kinds of fishing or marine vessel operations (14.8 percent). The small vessel captains are more likely than large-vessel captains to list fishing or vessel operation as an alternative. A range of other employment possibilities is listed by 30.7 percent of the captains, including skilled and unskilled laborer jobs, work in service industries, and running their own business. The large-vessel captains are more likely than smaller vessel captains to report that they would take these kinds of jobs.

As an indicator of the perceived availability of alternative forms of employment, we asked the captains if they would have to leave the area to find work if they were unable to shrimp. As can be seen in Table 10, nearly half answered that they would not have to leave the area. However, close to a third of those in the sample reported that they would have to leave in order to find work, and almost a fifth (19.3 percent) are unsure or did not know if they would have to leave the area to find work. This suggests that approximately half of the sampled fishermen are pessimistic about the prospects of finding nonshrimping jobs within their communities.

When asked if they had any plans to leave shrimp fishing, 17.7 percent of the captains answered affirmatively. Of these, 43.2 percent reported that they plan to leave shrimping within the next 12 months. Interestingly, captains of small vessels are the least likely and

[1]Unlike income from a spouse, it is difficult to estimate the effect of a child's earnings on family finances. Children generally apply most their own earnings to goods and services that otherwise would not be paid for from family resources.

Table 10. Plans to Leave Shrimping and Possible Alternative Work Options by Vessel Length

	Full Sample	Vessel Length (Feet) 35-49	50-59	60+
If unable to shrimp, what would you do?	**(N=411)**	(N=114)	(N=151)	(N=146)
Other fishing or boat operation	**14.8**	18.4	16.6	10.3
Work, other than fishing or boat operation	**30.7**	29.8	26.5	35.6
Not work (go on welfare, retire, do nothing)	**19.0**	19.3	18.5	19.2
No idea of what to do	**35.5**	32.5	38.4	34.9
If unable to shrimp, would you have to leave the area to find work?	**(N=416)**	(N=114)	(N=153)	(N=149)
No	**49.0**	50.9	47.7	49.0
Yes	**31.7**	29.8	33.3	31.5
Don't know/No idea	**19.2**	19.3	19.0	19.5
Do you have any plans to leave shrimp fishing?	**(N=417)**	(N=115)	(N=153)	(N=149)
(percent yes)	**17.7**	16.5	17.0	19.5
If you plan to leave shrimp fishing, do you plan to do this in the next 12 months? (percent yes)	**(N=74)** **43.2**	(N=19) 31.6	(N=26) 50.0	(N=29) 44.8
If you are planning to leave shrimping, what is the major reason for your decision?	**(N=74)**	(N=19)	(N=26)	(N=29)
Retiring	**16.2**	21.0	11.5	17.2
Can't make enough money	**35.1**	26.3	46.1	31.0
Health reasons	**12.2**	5.3	23.1	6.9
Prefer other kinds of work	**1.4**	5.3	0.0	0.0
Other reason	**33.8**	42.1	19.2	41.4

captains of medium-sized vessels are the most likely to report plans to leave within 12 months. More than a third of those leaving claimed that the major reason for exiting is that they could not make enough money. This response is most frequent among mid-sized vessel captains (46.1 percent of those leaving within 12 months).

Family Background

The extent to which fishing has been a way of life for the respondents is shown in Table 11. When asked about their father's type of work, 40.6 percent reported shrimping or other types of fishing, and an additional 26.9 percent indicated that their fathers are employed in marine related jobs. Furthermore, well over half of the fishermen reported that one or both of their grandfathers were shrimpers (57.1 percent). Although the larger vessel captains are more likely to report that their fathers and grandfathers were in the industry, the percentages remain high for all respondents.

Table 11. Work History of Parents and Grandfathers by Vessel Length

	Full Sample	Vessel Length (Feet)		
		35-49	50-59	60+
When you were growing up, what type of work did your **father** do?	**(N=394)**	(N=107)	(N=149)	(N=138)
Shrimping or Fishing	**40.6**	36.5	38.9	45.7
Marine related work	**26.9**	29.0	25.5	26.8
Oil industry related work	**8.6**	12.2	10.7	3.6
Other work	**22.8**	22.4	24.2	21.7
Did your **mother** work outside the home while you were growing up? (percent yes)	**(N=395)** **29.4**	(N=108) 33.3	(N=149) 33.6	(N=138) 21.7
Was either of your **grandfathers** a shrimper? (percent yes)	**(N=396)** **57.1**	(N=108) 59.3	(N=149) 52.4	(N=139) 60.4

We asked if their mothers were employed outside the home while the respondents were growing up (Table 11). Similar to what we found for captains' spouses with outside jobs (31.0 percent, Table 9), 29.4 percent of the captains' mothers had jobs outside the home. This suggests that wives' employment outside the household has remained relatively constant and has been an important strategy for enhancing family income. Large-vessel captains are the least likely to have had mothers in the labor force (21.7 percent compared to about 33 percent for the other vessel-size captains).

Indicators of Satisfaction and Well-Being

The decisions people make about entering, remaining, or exiting particular occupations or remaining in or moving from communities are influenced by lifestyle preferences, levels of satisfaction, family ties, and attachment to community. To tap this qualitative dimension of life, our survey included a series of questions about satisfaction and subjective evaluations of various aspects of work, personal circumstances, family, and community life.

Satisfaction with Shrimping as an Occupation and Way of Life. Table 12 contains findings for satisfaction with different aspects of shrimping. The responses to the first two items dealing with satisfaction with shrimping are quite positive. Approximately three-fourths of the captains reported that they are either extremely or generally satisfied with shrimping as a way of life and as an occupation. While few respondents expressed dissatisfaction with either item, the captains of midsized and smaller vessels are more likely than captains of larger vessels to answer negatively about shrimping as an occupation.

Table 12. Satisfaction and Stress with Selected Aspects of Shrimping

	Full Sample	Vessel Length (Feet)		
		35-49	50-59	60+
How satisfied are you with shrimping as a way of life?	**(N=412)**	(N=113)	(N=153)	(N=146)
Extremely satisfied	**32.3**	32.7	34.0	30.1
Generally satisfied	**41.8**	38.1	37.9	48.6
Generally dissatisfied	**18.7**	23.0	20.3	13.7
Extremely dissatisfied	**6.6**	5.3	6.5	7.5
Don't know/No response	**0.7**	0.9	1.3	0.0
How satisfied are you with shrimping as an occupation?	**(N=411)**	(N=113)	(N=153)	(N=145)
Extremely satisfied	**31.6**	29.2	31.4	33.8
Generally satisfied	**44.3**	47.8	42.5	43.5
Generally dissatisfied	**15.3**	15.0	17.7	13.1
Extremely dissatisfied	**8.0**	7.1	7.8	9.0
Don't know/No response	**0.7**	0.9	0.7	0.7
If you could make the decision again, would you still become a shrimper?	**(N=417)**	(N=115)	(N=153)	(N=149)
Yes	**66.9**	69.6	70.6	61.1
No	**30.0**	27.8	29.4	32.2
Don't Know/No response	**3.1**	2.6	0.0	6.7
Have you encouraged, or would you encourage your children to enter shrimping?	**(N=416)**	(N=114)	(N=153)	(N=149)
Yes	**23.3**	21.9	24.8	22.8
No	**72.8**	74.6	71.2	73.2
Don't know/No response	**3.8**	3.5	3.9	4.0
How much of the time would you say you feel overburdened by the demands of your shrimping operation?	**(N=409)**	(N=111)	(N=153)	(N=145)
A lot of the time	**27.1**	26.1	26.1	29.0
Some of the time	**27.4**	23.4	23.5	34.5
Only once in a while	**25.4**	21.6	30.7	22.8
Never	**19.3**	28.8	19.0	12.4
Don't know/No response	**0.7**	0.0	0.7	1.4
How often do you have problems with equipment, especially your boat?	**(N=409)**	(N=111)	(N=153)	(N=145)
A lot of the time	**21.8**	20.7	25.5	18.6
Some of the time	**28.6**	25.2	25.5	34.5
Only once in a while	**45.7**	47.8	47.7	42.1
Never	**3.7**	6.3	1.3	4.1
Don't know/ No response	**0.2**	0.0	0.0	0.7

Choose Shrimping Again? Respondents were asked that, if they could make the decision again, would they still become shrimpers. A substantial majority of the captains indicated that they would make that decision again (66.9 percent), although nearly one-third indicated that they would not. The responses of smaller-vessel captains are more positive for this question than are those of the larger-vessel captains, although the spread between the highest and lowest is less than five percentage points.

Encourage Children to Enter Shrimping? Perhaps the most telling indicator of the captains' optimism or pessimism about the future of shrimping as a way of life or occupation is whether they have encouraged or would encourage their children to enter shrimping. With very little variation across vessel size, more than three-fourths of the captains in our sample responded negatively (Table 12). Taking into consideration the high proportion of the captains themselves who grew up in households with a long tradition of shrimping (as indicated by fathers and grandfathers in the industry), this apparent pessimism about the industry could signal a substantial change in the demographic and cultural composition of the Louisiana shrimp fishing community.

Level of Stress with Shrimping. Well over half of all respondents, especially the large-vessel captains, indicated that they felt overburdened or had problems with equipment (Table 12). More than 63 percent of the larger vessel captains reported feeling over burdened with their occupation either a lot of the time or some of the time, compared to 49.6 percent of the midsized-vessel and 54.5 percent of the smaller-vessel captains.

Taken together, the findings reported in Table 12 suggest that Louisiana shrimp fishermen tend to be well satisfied with shrimping as a way of life and an occupation, although it is clear that they also find shrimping to be stressful and hard work. If given the opportunity, a large majority reported that they would again decide to enter shrimping. However, despite their enthusiasm for shrimp fishing, most would discourage their children from entering the industry. This last indicator reflects a deep-seated pessimism about the future of shrimp fishing which has serious implications for the shrimping community in the years to come.

Community Satisfaction. Our survey included two questions about respondents' attachment to their communities -- satisfaction with their community as a place to live and how pleased they would be if they had to move. Responses to the question of satisfaction with community as a place to live are very positive. Over three-fourths of the captains reported that they are very satisfied and less than 10 percent expressed any dissatisfaction with their community. Smaller vessel captains are slightly more dissatisfied with their communities than are other captains, but the differences are not great.

We also asked how pleased respondents would be if they suddenly found that they had to move to a similar kind of area more than 100 miles away (Table 13). Not surprisingly, responses to this question are predominantly negative. Over three-fourths of the captains indicated that they would be very displeased and only 7 percent indicated that they would be

Table 13. Satisfaction with Community and Economic Status by Vessel Size

	Full Sample	Vessel Length (Feet) 35-49	50-59	60+
How satisfied are you with your community as a place to live?	**(N=405)**	(N=109)	(N=151)	(N=145)
Very satisfied	**75.6**	72.5	76.2	77.2
Somewhat satisfied	**17.3**	17.4	19.2	15.2
Somewhat dissatisfied	**5.9**	9.2	4.6	4.8
Very dissatisfied	**1.0**	0.9	0.0	2.1
Don't know/No response	**0.2**	0.0	0.0	0.7
Suppose you suddenly found that you had to move to a similar kind of area, more than a 100 miles away from here. How would the idea of leaving this neighborhood make you feel	**(N=403)**	(N=109)	(N=151)	(N=143)
1. Very Pleased	**2.5**	1.8	1.3	4.2
2. Fairly Pleased	**4.7**	4.6	6.6	2.8
3. Fairly Displeased	**13.9**	14.7	14.6	12.6
4. Very Displeased	**75.2**	76.1	75.5	74.1
5. Not Sure	**2.2**	2.8	0.7	3.5
9. Don't know/No response	**1.5**	0.0	1.3	2.8
How often do you feel that you don't have enough money to meet your needs.	**(N=409)**	(N=111)	(N=153)	(N=145)
A lot of the time	**32.5**	46.0	34.0	20.7
Some of the time	**28.1**	23.4	26.1	33.8
Only once in a while	**25.9**	19.8	26.1	30.3
Never	**13.6**	10.8	13.7	15.2
Don't know/No response	**0.0**	0.0	0.0	0.0
How much of the time would you say you feel overburdened by your debt load?	**(N=409)**	(N=111)	(N=153)	(N=145)
A lot of the time	**21.3**	26.1	17.6	21.4
Some of the time	**25.7**	20.7	24.2	31.0
Only once in a while	**25.2**	21.6	29.4	23.4
Never	**27.6**	31.5	28.1	24.1
Don't know/No response	**0.2**	0.0	0.7	0.0
Do you generally feel that you have enough people to help out?	**(N=409)**	(N=111)	(N=153)	(N=145)
No	**20.8**	18.9	22.2	20.7
Yes	**77.0**	78.4	75.2	77.9
Don't know/No response	**2.2**	2.7	2.6	1.4
Do you generally feel that you have enough people to talk to?	**(N=408)**	(N=111)	(N=152)	(N=145)
No	**10.0**	9.0	9.2	11.7
Yes	**89.0**	90.1	88.8	88.3
Don't know/No response	**1.0**	0.9	2.0	0.0

pleased with such a situation. Vessel size had no bearing on how captains responded to this question.

Economic Well-Being. Our survey included questions about two important dimensions of economic well-being -- how often captains felt that they did not have enough money to meet their needs and how much of the time they felt overburdened by their debt load. In response to the question about how often they feel that they do not have enough money, close to a third of the captains claimed that they feel this way a lot of the time (Table 13). Responses are highly correlated to vessel size; the small vessel captains are much more likely to report financial concerns than are their larger vessel counterparts. Almost half (46.0 percent) of the small-vessel owners answered that they feel that they do not have enough money to meet their needs a lot of the time, while 34.0 percent of the midsized-vessel captains and 20.7 percent of the large-vessel captains selected this response (Table 13).

The second question dealing with economic well being asked how often the respondents felt overburdened by their debt load. The responses to this question suggest that indebtedness is less of a concern than having enough money to meet needs, although this aspect of financial well being is still a substantial concern among the captains. Slightly more than a fifth of the respondents indicated that they feel overburdened by debt a lot of the time and an additional 25.7 percent answered that they feel this way some of the time. Unlike responses to concerns about having enough money, there is no clear-cut relationship between vessel size and feelings of being overburdened by dept.

Social Well-Being. The survey included two items about the adequacy social support felt by the captains. Over all, the responses are positive. When asked if they generally feel that they have enough people to help out, more than three-fourths of the captains answered yes. And to the question of whether or not they feel that there are enough people to talk to, almost 90 percent answered yes. Vessel size had no effect on the pattern of responses to these two items.

Trust in Local Government. We asked how much the local government could be trusted to do what is right (Table 14). Less than 10 percent of the captains in our sample answered that they just about always trust local government and about a fourth of the captains claimed that they could trust local government most of the time. However, well over half of all respondents trusted local government only some of the time or almost never. In this respect, the larger vessel captains tended to be less distrusting than smaller vessel captains (22.8 percent of the larger vessel owners claimed to almost never trust local government while 33.1 and 31.2 percent of the medium-sized and small-vessel captains, respectively, selected this response).

Political Efficacy. An important indicator of satisfaction with community is the perceived accessibility and responsiveness of local leaders. In this regard, the captains were asked if they have ever personally spoken to or written to some member of the local government or some other person of influence in the community about some needs or problems. Responses to this question (Table 14) indicate that a large proportion (66.4 percent) of the captains have made attempts to influence local decision-making. Although the large-vessel captains are less likely than the other captains to have answered affirmatively, the overall rate remains high. This high level of interaction with local officials suggests that fishermen feel a measure of efficacy even in light of the pervasive sentiment of distrust of local government.

Table 14. Trust and Influence in Local Government by Vessel Size

	Full Sample	Vessel Length (Feet) 35-49	50-59	60+
How much of the time do you think you can trust the local government here in your town to do what is right?	**(N=405)**	(N=109)	(N=151)	(N=145)
Just about always	**9.9**	10.1	9.3	10.3
Most of the time	**24.7**	21.1	27.8	24.1
Only some of the time	**32.1**	33.9	28.5	34.5
Almost never	**28.9**	31.2	33.1	22.8
Don't know	**4.4**	3.7	1.3	8.3
Have you ever personally spoken to or written to some member of local government or some other person of influence in the community about some needs or problems?	**(N=405)**	(N=109)	(N=151)	(N=145)
No	**32.8**	31.2	27.8	39.3
Yes	**66.4**	68.8	70.9	60.0
Don't know	**0.7**	0.0	1.3	0.7

Major Issues, Concerns, and Solutions

We asked the captains to tell us what they considered to be the most pressing issue or problem facing Louisiana shrimp fishermen. Although we received a wide array of answers, most of these could be grouped into four categories: regulatory concerns, overcrowding, environmental quality, and costs and market conditions. Because regulatory matters are of such overriding concern to the respondents, accounting for 69.2 percent of all answers, we subdivided this category into concerns with restrictive regulations and concerns with insufficient regulatory control. Table 15 contains the findings for these categories.

Regulatory Issues. By far, the most pervasive concern of the captains we interviewed is over the issue of excessive federal and local regulations. Well over half of all responses referred to matters in this category. Although not reported in Table 15, the most commonly mentioned regulative issue is the requirement for Turtle Excluder Devices (TEDs). Many of the captains explained that the TEDs are inefficient, increasing costs and reducing their catch. Those who did not specifically mention TEDs as a major regulatory problem listed such problems as environmental laws, too much federal government intervention, too many licenses to buy, and so on. Comments about over-regulation are more frequent among larger-vessel captains than among those who operated smaller vessels. Over two-thirds (66.7 percent) of captains of larger vessels, compared to 59.5 percent of captains of medium-sized vessels and 46.1 percent of the smaller-vessel captains, reported regulatory constraints as the most serious problem facing shrimp fishermen.

Alternatively, a number of the captains reported that their greatest concern is with inadequate or insufficient regulatory control. The smaller vessel captains are more likely than larger-vessel captains to have answered in this category (19.1 percent vs. 13.1 percent for the medium-sized vessel captains and 13.3 percent for the large-vessel captains). Examples of responses in this category include too little regulation of skimmers and night trawling and inadequate regulations for offshore fishing.

Table 15. Perceived Problems and Solutions by Vessel Length

	Full Sample	Vessel Length (Feet)		
		35-49	50-59	60+
What do you view to be the most pressing problem or issue facing shrimp fishermen?				
Government Regulations				
Excessive Regulations	**58.4**	46.1	59.5	66.7
Insufficient Regulations	**14.8**	19.1	13.1	13.3
Crowded Conditions	**10.3**	12.2	10.5	8.7
Costs and Market Conditions	**7.7**	7.0	9.1	6.7
Environmental Quality	**7.2**	13.0	7.9	2.0
Other	**1.7**	2.6	0.0	2.7
What would you suggest as the most important solution to the problem or issue you mentioned?				
Relax Regulations	**34.3**	33.9	33.3	35.7
Tighten Regulations	**27.4**	30.4	26.1	26.4
More Local Input	**6.4**	2.6	5.9	10.0
Improve Cost and Market Conditions	**5.9**	4.3	7.2	5.7
Enviromental Quality	**4.7**	4.7	5.9	2.1
Turtle solution	**4.2**	2.6	5.9	3.6
Research	**2.9**	1.7	3.9	2.9
Other	**7.8**	8.7	7.2	7.9

Other Major Concerns. Other frequently mentioned areas of concern are overcrowding in the fishery, environmental issues, and financial problems caused by excessive operation costs and low shrimp prices. One out of every ten captains complained that the fishery is suffering from an influx of fishermen and crowding. Concern with environmental matters, which accounted for a little more than 7 percent of the responses overall, is mentioned more often by the smaller- than by the larger-vessel captains. Only two percent of the large-vessel captains mentioned environmental problems while 13 percent of the small vessel captains considered the environment to be their most important concern. Among the environmental problems mentioned are the loss of sanctuaries for shrimp breeding and pollution from agricultural runoff.

Solutions. Captains suggested a broad range of solutions for solving the problems facing shrimpers (Table 15). The most frequently mentioned solution is to relax regulations (34.3 percent of all responses). Those who responded this way are mainly referring to the issue of TEDs, although other issues are mentioned. While many captains thought that regulations needed to be lifted, more than a fourth (27.4 percent) of the captains suggested that specified regulations needed to be tightened including stricter control of licensing, greater scrutiny of skimmers, and night trawling.

Although solutions calling for either decreased or increased regulatory intervention accounted for more than 60 percent of the responses, a number of other suggestions were offered by the captains. Some (6.4 percent) called for greater local input into decision-making processes. A number of these captains commented that decisions affecting the shrimping industry often are made without input from the fishermen who are directly affected by these decisions. It is interesting to note that large-vessel captains are more likely to suggest this solution than are their smaller-vessel counterparts (10.0 percent versus 5.9 percent of medium and 2.6 percent of small vessel captains). Some suggested lowering costs and improving market conditions and others suggested improving environmental quality. Finally, a few captains pointed to the need for systematic research into the problems facing the fishery.

CONCLUSIONS

Although preliminary and descriptive, our findings point to several aspects of shrimp fishermen and shrimp fishing in Louisiana that merit attention. First, although the economic and regulatory pressures facing the Louisiana shrimp industry are sure to have an impact on all fishermen, it is likely that the impact will be uneven. As we have seen, the Louisiana fishermen are not necessarily a homogenous group. Their financial investment in the industry (as indicated by vessel size, for example) varies considerably. Household earnings may be from shrimp fishing only or supplemented by employment outside of the fishery. Not all fishermen are from families with a history of shrimp fishing. Fishermen vary in age, family composition, and ethnic background. All of these factors affect the ways that fishermen will respond to regulatory and economic fluctuations in the industry.

Despite the differences in demographic characteristics and in aspects of their fishing operations, Louisiana shrimp fishermen share a strong sense of attachment both to shrimping as a way of life and to the communities in which they live. Our findings indicate that most captains cannot imagine leaving their communities even if shrimp fishing were no longer an option. At the same time, many told us that they have no idea of what they would do if they could no longer shrimp. Although many hold second jobs or have been in other occupations prior to shrimp fishing, many others have no other work experience and\or little formal education. These factors suggest that options for employment are severely limited for a substantial number of the fishermen. On one hand, strong emotional attachment to community and lifestyle will be a restraint for fishermen leaving their communities to seek employment elsewhere. On the other hand, low levels of education and the lack of other work experience outside of shrimping will limit employment opportunities even if shrimpers are willing to move to find work.

Even without taking into consideration the disruptive effects that labor displacement would have for shrimping families and communities, the large proportion of fishermen that would discourage their children from following in their footsteps foreshadows dramatic changes in the complexion of the Louisiana shrimping fleet and the communities that have traditionally been home for the fishermen. Although we can only speculate, it is likely that working-age children of shrimp fishermen will increasingly relocate to find employment as family fishing operations become a less attractive career option. And if the stock of shrimp remains in the Gulf, failure to replace retiring fishermen with local residents will open opportunities for the in-migration of fishermen from outside the local communities.

What the future holds for the Louisiana shrimp industry remains uncertain. Our preliminary findings from a survey of shrimp vessel captains point to a number of important questions. Would downturns in the fishery (caused by environmental, market, or regulatory circumstances) have an uneven effect on fishermen? Related to this, what characteristics of shrimp fishermen would affect their adaptability or resilience in the face of potential change? Does holding other jobs by fishermen (and/or their spouses) provide pathways out of shrimp fishing? Or, do these jobs provide an economic cushion that allows fishermen to stay in the industry? Are captains with a family history of shrimp fishing more resilient to fluctuations than those without such a history? Does attachment to community affect decisions of fishermen to stay in or exit the fishery? To what extent are local economies able to absorb displaced fishermen? These and related questions will guide our subsequent analysis.