## **UF/IFAS Extension**





# Seafood Knowledge, Perceptions, & Use Patterns in Florida

Findings from a 2013 Survey of Florida Residents



Chuck Adams, Lisa Krimsky, Brooke Saari, Bryan Fluech

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Florida Sea Grant University of Florida PO Box 110409 Gainesville, FL 32611-0409 (352) 392.2801 www.flseagrant.org

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Chuck Adams Florida Sea Grant Marine Economics Specialist

> Lisa Krimsky Florida Sea Grant Agent

> Brooke Saari Florida Sea Grant Agent

> Bryan Fluech Florida Sea Grant Agent

Florida Sea Grant College Program UF/IFAS Extension

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### INTRODUCTION

Florida represents a major component of the nation's seafood industry. The commercial fishing industry in Florida lands approximately 100 million pounds of wild-caught finfish and shellfish annually<sup>1</sup>. Over one hundred species, including shrimp, grouper, spiny lobster, stone crab, snapper, and others, are harvested in Florida and comprise an extremely diverse mix of high-quality products that are eventually sold into local, regional, and national markets. While effective management has kept the traditional finfish and shellfish species in the markets, an even more diverse group of seafood products are imported into Florida from other states and foreign sources.

During 2012, the quantity of imported seafood into the US market exceeded domestic landings by 42%<sup>2</sup>. With Florida being a leading state for importing and processing seafood, the contribution of imports into local markets cannot be understated. The seafood industry in Florida includes a complex network of harvesting, importation, processing, and sales which fuels a very large economic engine. Florida-harvested seafood annually generates \$171 million in economic impacts and creates over 7,400 jobs, while imported seafood generates \$2.4 billion in economic impacts and creates 65,000 jobs<sup>3</sup>. The economic importance of the state's industry aside, locally-harvested and imported seafood products provide Florida's seafood consumers with an unparalleled assortment of seafood products to savor and enjoy.

As the demand for seafood continues to grow in Florida, driven by a growing population, a constantly changing ethnicity mix, and evolving economic conditions, the need for a high-quality, diverse, sustainable, and affordable seafood supply is increasingly important. However, many Floridians are becoming more concerned about the origin, quality, sustainability, safety, affordability, and convenience of the seafood products they purchase. Local food movements are compelling consumers to purchase more locally sourced products. The growing presence of "green" products and eco-labeling is creating an awareness of the sustainability of seafood. Convenience packaging is realizing a growing market share as consumers continue to seek confidence in preparing seafood at home. In addition, the media exposure of contaminants in food products and the increasing incidence of economic fraud, such as mislabeling, contribute to a complex and confusing marketplace. Consumer confusion and uncertainty exists, creating a demonstrable need for educational programs that help can help buyers make informed decisions about the seafood products they should purchase for their households.

Thus, a survey of Florida seafood consumer preferences, perceptions and concerns was needed to assess the regional educational needs of seafood consumers. A survey was needed to address the myriad issues concerning seafood guality, safety, product origin, mislabeling, sustainability and traceability. The survey also addressed regional needs within the state (i.e., proximity to the coast, north/south/central with the peninsula, etc.), seasonality issues, consumer demographics, awareness of health benefits associated with seafood, preparation methods, and concerns associated with recent environmental events. The findings of the survey augment the information that exists from previous seafood perception surveys for Florida and the other states within the Gulf region. The survey findings are a key source of information to accurately assess the educational needs of the future educational programs and help

identify the topics of greatest concern to various clientele groups.

#### METHODS

An online survey instrument was developed that solicited information regarding seafood purchasing and consumption patterns, as well knowledge, attitudes, and perceptions regarding seafood. The survey effort was a component of a project titled "Florida Seafood at Your Fingertips" and funded by a University of Florida IFAS Extension Program Enhancement Grant. The survey instrument was disseminated using a commercial Internet marketing firm that broadcast the survey link in multiple waves via an email message to approximately 2,500,000 email addresses targeting adult consumers (age 18 and over) within the state of Florida. The survey was conducted via email during the summer of 2012. To further augment the visibility and response to the survey effort, an invitation to participate in survey was also posted on the home page of the Florida Sea Grant website. In addition, the survey was posted on several UF/IFAS county Extension websites, including the websites of several project PIs, co-PIs, and participants.

Survey protocol and questions were approved by the University of Florida Internal Review Board for Social and Behavioral Research. The survey was field-tested for content clarity, validity and readability. All recommendations were considered and the survey was revised based on field-test feedback. The survey campaign was launched during July, 2013 via the Internet marketing firm. However, the survey instrument was posted for several additional months on the various Extension websites in an attempt to enhance response.

Survey questions were divided into four categories: (1) basic consumption habits, (2) attitudes

about purchased seafood, (3) thoughts about seafood safety, and (4) demographics. The demographic section contained questions regarding gender, age, ethnicity, education, marital status, household income, and the number of children in the household. County of residence and years residing in Florida were solicited. Information was also collected regarding where and how respondents receive information regarding seafood. A complement of knowledge-based questions were included and graded as right or wrong based on the responses -Agree, Disagree, or Not Sure. For purposes of statistical assessment, "Not Sure" was considered a wrong answer, while 80% correct responses to the complement of knowledgebased questions was considered subject mastery<sup>4</sup>.

### FINDINGS

The survey findings will be discussed by question in the order in which the questions were presented on the survey instrument. The findings are reported on a statewide basis and by UF/IFAS Extension District (Figure 1). The following abbreviations will denote the UF/IFAS Extension Districts: Northwest (NWD), Northeast (NED), Central (CD), South Central (SCD), and South (SD). District information is provided to allow Extension professionals in those regions to better understand the possible need for seafood-related outreach programs within their respective District. In addition, these findings will provide insight necessary to design targeted educational programs that address District specific awareness levels, perceptions, knowledge base and information needs.

A total of 717 individuals responded to the survey and provided a response to some or all of the questions. This overall response yielded 560 surveys that were entirely

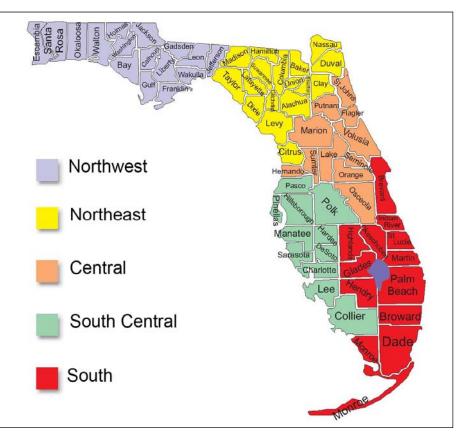


Figure 1. Survey findings are reported by UF/IFAS Extension district.

complete. Given the manner in which the survey instrument was administered, an overall "response rate" is not available, nor would such a metric provide much information. The initial email survey went to 2.5 million Florida residents, but the number of responses was extremely low and estimated to be less than 150. The majority of the completed returns came via the Extension and Sea Grant websites. These individuals encountered the survey on an opportunistic basis, with no information available to provide a measure of the number who chose not to complete the survey.

The data generated for each question is presented in a table provided for each question. Unless stated otherwise, all tabulated response data are provided as percentages, the total of which may not equal 100 due to rounding errors. In addition, respondents were directed to select

"all that apply" for a suite of choices on certain questions. Also, the response percentages were computed on a statewide and UF/IFAS District basis using the respective number of responses. Though some respondents may not have indicated their home District, such responses were included in statewide totals. Other sources of discrepancies may exist due to incomplete responses for all options within a given question. The authors can be contacted if additional information is needed regarding the number of responses to each question, on a statewide and IFAS District basis. Finally, some questions had an open-ended response option for "Other". Those responses are not tabulated or discussed in this report and can also be obtained from the authors if needed.

#### **Basic Consumption Patterns**

## Q.1 – Do you eat seafood such as any types and forms of finfish, and/or shellfish? (Table 1)

Of the respondents statewide who answered Q.1, 97% indicated that they do consume seafood. That measure of avidity was slightly higher for the SD (99%), NWD (98%) and CD (98%), and slightly lower for the NED (94%) and SCD (93%).

**Key Finding:** 97% of survey respondents consume seafood

### Q.2 – If you answered No to Q.1, please identify the primary reason(s) you do not eat seafood? (Table 2)

Of the 3% of respondents statewide who do not consume seafood (n=21), the primary reasons were that they don't like the taste of seafood (48%) or because the primary household meal preparer does not cook seafood (24%). Due to the survey delivery methodologies, only those email recipients and website visitors who regularly consume and/or purchase seafood were expected participate in the survey. Thus, the results for this survey may underestimate the number of people who do not consume seafood. However, as the purpose of this survey was to assess seafood consumption and purchasing patterns, as well as attitudes regarding seafood consumption by consumers, this potential underrepresentation of non-consumers may only provide a minimal detraction from the intended survey purpose and the usefulness of the survey results. The same general pattern of responses was found in the responses by IFAS District, with the majority of respondents indicating that non-consumption was due to a dislike for the taste of seafood. However, the leading reason for not consuming seafood by NED respondents was that the primary meal preparer does not cook seafood (66%). In addition, the primary

reasons for non-consumption as provided by SD respondents were both associated with taste and lack of knowledge regarding preparation.

**Key Finding:** "Not liking the taste" and the major at-home meal preparer not preparing seafood were identified as the primary reasons not consuming seafood.

### Q.3 – If you answered Yes to Q.1, how often do you eat seafood? (Table 3)

Of those respondents statewide who do consume seafood, 38% eat seafood less than once per week, 50% eat seafood 1 – 2 times per week, and 13% eat seafood more than three times per week. This finding is consistent with findings from a 2007 Florida Seafood Study conducted by the Florida Department of Agriculture and Consumer Services which reported 28, 52, and 12%, respectively, for the same frequency choices<sup>6</sup>. These results suggest that Floridians consume more frequently than the national average. This survey indicates that 63% of survey respondents (Florida residents) consume seafood at least once per week as compared to only 42% of U.S. seafood consumers<sup>6</sup>. The results are similar on an IFAS District basis, with only the NED being characterized by more respondents (52%) indicating consumption of seafood is less than once per week.

**Key Finding:** Florida seafood consumers primarily eat seafood at least 1-2 times per week.

### Q.4 – What percentage of the seafood you eat is purchased from a store and/or restaurant as opposed to being self-caught? (Table 4)

On a statewide basis, 77% of the respondents indicated that 81-100% of the seafood they consume is purchased at a store or restaurant, rather than being self-caught. Thus, for approximately three-quarters of the respondents, less than 20% of the fish they consume is self-caught. This finding was also found for respondents within the various IFAS Districts.

**Key Finding:** The majority of seafood in Florida is purchased rather than self-caught

## Q.5 – Do you consider yourself to have a varied seafood diet? (Table 5)

Most respondents indicated they had a varied diet of seafood, in that they consumed multiple types of finfish and shellfish. Of the total respondents statewide, 81% indicated they consumed multiple types of finfish and shellfish. This same basic finding holds across the various IFAS Districts, with responses ranging from 85% for SCD respondents to 74% for NED respondents.

**Key Finding:** Approximately 80% of seafood consumers eat multiple types of finfish and shellfish

### Q.6 – If you answered No to trying different types of seafood, what factor(s) prevent you from trying new varieties (Table 6)

The reasons for not trying different types of seafood were wide-ranging. However, the majority of respondents on a statewide basis indicated the primary reasons for avoiding variety in the seafood they consumed was taste (52%), cost (47%), and "habit/tradition" (32%). Uncertainty about preparation methods (26%), contamination concerns (20%), knowing where to find (14%), and that the primary household meal preparer does not prepare seafood (12%) were other reasons provided. Those three key reasons were also common to the various IFAS Districts, with slight variations in rank ordering being found. For example, the most important reason for a lack of seafood variety for NED and SCD respondents was cost, rather than taste.

Preparation methods were of greater importance to NED and SD respondents than in other Districts, while the same was found for contamination issues for SCD respondents.

**Key Finding:** The biggest barriers to trying different types of seafood are "taste", "price" and "tradition."

#### Q. 7 – As compared to 5 to 10 years ago, how has the amount of seafood you consume changed? (Table 7)

Statewide responses suggest that most respondents (64%) have experienced a change in seafood consumption over the last 5 to 10 years. Overall, 43% of respondents indicated an increase in consumption, 21% indicated a decrease in consumption, and 36% indicated that consumption had "stayed about the same". In general, this finding was held across all the IFAS Districts, with one exception. The largest share of respondents in the SD (43%) indicated that consumption had remained about the same, while 40% and 18% indicated that seafood consumption had increased and decreased, respectively.

**Key Finding:** The majority of respondents increased their consumption of seafood in the last 5 to 10 years.

### Q. 8 – If you consumption has changed, what are the reasons for that change? (Table 8)

Recall from Q.7 that 64% of the respondents on a statewide basis indicated their consumption of seafood had changed, with 43% of those respondents indicating an increase in consumption, while 21% indicated a decrease in consumption. The reasons for the change in consumption varied considerably. On a statewide basis, of those respondents who indicated a <u>decrease</u> in their consumption, 21% associated that decrease with the cost of seafood, while 16% indicated that environmental concerns led to decreased consumption. Of those respondents who indicated an *increase* in consumption, 53% cited the healthful benefits of seafood, while 31% suggested that the increased availability of seafood led to an increase in consumption. The relative importance of the reasons for a decrease or increase in consumption were in general consistent across IFAS Districts.

**Key Finding:** The primary reason for increasing consumption of seafood is due to the recognized health benefits of seafood, while decreases in consumption are linked to the cost of seafood.

#### **Attitudes toward Seafood**

### Q.9 – Identify the top 3 factors in order of importance that influence your seafood purchasing decisions. (Table 9)

Respondents were asked to select their top three choices in terms of factors that influenced their seafood purchasing. On a statewide and District basis, freshness was the most cited "First Choice" among factors that might influence seafood purchasing. "Freshness" was selected by 60% of the respondents, while "Flavor/taste" (33%) and "Price" (23%) were other factors selected by respondents as the most important factor affecting purchasing decisions. These findings were somewhat consistent across IFAS Districts as well. "Price" was most often selected as the "Second Choice" and "Third Choice" of importance, while other consistently important factors among the top three choices included "Health benefits", "Wild Caught", and "Country of Origin". Factors such as "Sustainable source" and "Habit/tradition" were deemed of lesser importance by respondents.

**Key Finding:** "Freshness", "flavor/taste", and "price" are the

most important factors when purchasing seafood.

### Q.10 - When you purchase seafood, how often do you purchase it from (options)? (Table 10)

Respondents were asked how often they purchase seafood by type of seller. On a statewide basis, most respondents (when assessing their purchases by type of seller) indicated that seafood is most frequently purchased from grocery stores (47%) and restaurants (44%). In contrast, 63% and 73% of respondents indicated that seafood is never purchased from farmers markets or roadside vendors. Local seafood markets were "Never" or "Rarely" used by approximately 20% of respondents, while approximately 30% of respondents used them "Occasionally" or "Frequently". In general, the same relative patterns held across IFAS Districts. Exceptions to that generality include a higher level of avoidance of local seafood markets in the CD and SCD, while a slightly more frequent use of local seafood markets in the SD and NWD.

**Key Finding:** Restaurants and grocery stores are the primary points of seafood purchase.

### Q.11 – Why do you purchase seafood where you do? (Table 11)

Most respondents on a statewide basis indicated that the most important determinants regarding where they purchase seafood is freshness (64%), followed by location (57%) and price (48%). Local availability (42%), variety (30%), and vendor sales staff knowledge (19%) were of lesser importance in determining where seafood is purchased. The relative importance of these factors was generally consistent across IFAS Districts, with few exceptions. Location was the most important determinant in the SCD, while local availability was slightly more important in the NED and SD.

**Key Finding:** "Freshness" and "location" are identified as the most important reasons for determining where seafood is purchased

### Q. 12 – How often do you purchase seafood that is caught/raised in (options)? (Table 12)

Respondents were asked about their preferences regarding the origin of the seafood they purchase: local (Florida), regional (Gulf of Mexico), domestic (United States), or imported (foreign countries). Specifically, respondents were asked to indicate how often they purchased seafood from these various sources. On a statewide basis, most respondents indicated a higher frequency for purchases of seafood from domestic, regional, or local sources. The majority of respondents indicated purchasing seafood from these three sources either ">50% of the time" or "always". In contrast, the majority of respondents indicated the frequency of purchases of seafood from foreign sources either "Never" or "<50% of the time". Approximately one-quarter of the respondents were unsure of the frequency by which they purchased seafood from these four sources. These findings were in general consistent across the IFAS Districts. Respondents from the NED exhibited a greater frequency for purchases of regional and local seafood.

**Key Finding:** Approximately half of all respondents more frequently purchase seafood from local, regional, and domestic sources, and much less frequently from imported foreign seafood.

### Q. 13 – How important is it to you to know that the seafood you purchased was caught/raised in (options)? (Table 13)

Respondents were asked to rank the importance of knowing that the seafood they purchased came foreign, domestic, regional or local sources. The ranking was done by utilizing a Likert scale, where "Very unimportant" was given a value of "1" and "Very important" was given a value of "5". The average Likert scores were computed across the total number of respondents on a statewide and IFAS District basis. On a statewide basis, the average Likert scores for the foreign, domestic, regional, and local source seafood were 3.7, 4.0, 3.8, and 3.8, respectively. These Likert scores suggest that respondents deemed the purchase of domestic seafood to be of greatest importance, followed by regional and local sources, with foreign sources being of least importance. These scores and relative ranking amongst sources was consistent across IFAS Districts. One exception is that respondents in the NED indicated that domestic, regional, and local sources were of equal importance to their seafood purchasing decisions.

**Key Finding:** As suggested in Q. 12, knowing the geographic identity of seafood was important for seafood respondents, with the most importance associated with domestic (U.S.) seafood sources.

### Q. 14 - Indicate your opinion of the following seafood origins. (Table 14)

Respondents were asked to rank foreign, domestic, regional and local sources of seafood, based on their general "opinion". A Likert scale to be utilized for the ranking ranged from "most negative" (value of "1") to "most positive" (value of "5"). The average Likert scores were computed across the total number of respondents on a statewide and IFAS District basis. On a statewide basis, the average Likert scores for the foreign, domestic, regional, and local source seafood were 1.8, 4.1, 4.1, and 4.3, respectively. These rankings indicate that respondents had a prevailing negative opinion of seafood originating from foreign countries, with significantly higher

(and approximately equal) rankings of seafood originating from the other three source options. Local (Florida) seafood received the highest ranking. This rank ordering was also found across the IFAS Districts, with slight differences found in the rank ordering of domestic and regional seafood. But, across the various IFAS Districts, seafood from foreign sources received the lowest ranking in terms of the respondents' "opinion".

**Key Finding:** Opinions associated with foreign seafood are largely negative, whereas local, regional, and domestic seafood is regarded with a more positive view.

### Q. 15 – When purchasing seafood from a retailer how confident are you in your ability to identify whether it is from Florida? (Table 15)

Respondents were asked to express their confidence in being able to identify seafood as originating from Florida when purchasing from a retail outlet (e.g., seafood retail shop, grocer). Respondents were asked to select one of the following responses: "Not confident at all", "Somewhat confident", "Confident", "Very confident", "Not sure". On a statewide basis, approximately one-third of the respondents indicated they were both "Not confident ... " and "Somewhat confident" in their ability to identify Florida seafood when purchased at a retail outlet. A smaller share of the respondents indicated they were "Confident", with less than 10% of respondents indicating they were "Very confident" or "Unsure". This finding was consistent across IFAS Districts, with respondents in the NED indicating a relatively higher percentage (30%) indicating they were "Confident" in the ability to identify Florida seafood when purchased from a retail outlet.

**Key Finding:** Despite the perceived importance of knowing where seafood is caught or harvested, the

majority of respondents were "not confident" or "somewhat confident" in their ability to identify Florida seafood when purchased in a retail setting.

### Q. 16 – When purchasing seafood at a restaurant how confident are you in your ability to identify whether it is from Florida? (Table 16)

Respondents were asked to express their confidence in being able to identify seafood as originating from Florida when purchasing from a restaurant. Respondents were asked to select one of the following responses: "Not confident at all", "Somewhat confident", "Confident", "Very confident", "Not sure". On a statewide and IFAS District basis, the majority of respondents indicated they were "Not Confident" in their ability to identify Florida seafood when purchased from a restaurant. On a statewide basis, 58% were "Not Confident", while on an IFAS District basis, the percentage of respondents who were "Not Confident" ranged from 52% (NED and NWD) to 67% (SD). Approximately one-third of the respondents indicated they were "Somewhat confident", although that ranged from 19% for CD to 33% for NED respondents. Significantly fewer respondents indicated any higher level of confidence, with about 10% of the respondents indicating they were "Not sure", though the actual percent ranged from 4% (NED) to 12% (CD).

**Key Finding:** The majority of seafood consumers are less confident in their ability to identify Florida seafood when purchasing from a restaurant, with more than 50% "not confident at all".

### Q. 17 – What steps, if any, do you take to identify if the seafood you purchase is caught or raised in Florida? (Table 17)

Respondents were asked to indicate which strategies they use to identify

Florida caught/raised seafood. The choices are provided in Table 17. Respondents were asked to select all that apply. On a statewide basis, 56% indicated they would "Ask the waiter or store attendant", while 26% indicated they would "Look for the Fresh from Florida logo", the latter in reference to the FDACS point-of-sale marketing campaign logo. Approximately equal numbers of respondents (26% and 23%) indicated "I don't take any steps" and "Buy it directly from certified fisherman dealer", respectively. Less than 10% indicated they simply don't eat Florida seafood. This general, relative finding was found across the IFAS Districts.

**Key Finding:** The waiter or store attendant is the primary source of information regarding the geographic source of seafood being purchased.

### Q. 18 – Why do you choose to purchase seafood caught/raised in Florida? (Table 18)

Respondents were asked to indicate the reasons why they choose to purchase Florida caught/raised seafood. The choices are provided in Table 18. Respondents were told to select all that apply. On a statewide basis, the reasons were "Support of local fishermen/economy", "It's fresher", and "Safer to eat than imported seafood" (79%, 65%, and 39%, respectively). Issues such as affordability, taste and sustainability were revealed to be have a significantly lower ranking among the reasons from which respondents could choose. This ranking was consistent across the IFAS Districts.

**Key Finding:** "Support of local fishermen/economy" and "freshness" were identified as the two most common reasons for purchasing Florida seafood.

### Q. 19 – What barrier(s), if any, cause you to NOT purchase seafood caught/raised in Florida? (Table 19)

Respondents were asked to identify factors that influenced their decision to not purchase Florida seafood. Respondents were told to select all that apply. Statewide, the top factors selected were "Don't know where to find it" (45%), "Don't know what types of seafood are caught/raised in Florida" (37%), and "Cost prohibitive" (29%). Factors such as "Never available" and "Difficult to prepare" were suggested to be of lesser importance regarding the decision to not purchase Florida seafood products. This general finding was found across IFAS Districts, with a few exceptions. For example, respondents in the NWD indicated that "Cost prohibitive" was the leading factor in the decision to not purchase Florida seafood, while NED respondents indicated the leading factor was "Don't know what types ...".

**Key Finding:** The top 3 barriers to purchasing Florida seafood were not knowing where to find it, not knowing what seafood is caught/raised in Florida, and cost.

### Q. 20 – How confident are you at finding locations where Florida seafood is sold? (Table 20)

On a statewide basis, most respondents (30%) indicated being "Somewhat confident" in their ability to find Florida seafood in the markets. An approximate equal share of respondents indicated they were either "Not confident" (22%), "Confident" (21%), or "Very confident" (22%). This findings was consistent across the regions, with NWD and NED respondents indicating a higher level of confidence and CD and SCD respondents indicating a slightly lower level of confidence.

**Key Finding:** With the exception of the NWD respondents, the majority (>50%) of respondents are "not

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confident at all" or "somewhat confident" in their ability to find Florida seafood.

### Thoughts about Seafood Safety

## Q. 21 – How confident are you in the safety of seafood caught/raised in (options)? (Table 21)

Respondents were asked to consider their perception of the safety of the seafood they can purchase, and indicate their level of confidence in the "safety" of the seafood that comes from foreign, domestic, regional, and local sources (see Q.11 for definitions of sources). On a statewide basis. most respondents (59%) were "Not confident at all" in the safety of seafood that comes from foreign sources. Respondents associated a higher level of confidence with domestic, regional and local seafood, while the 43% of respondents indicated they were "Very confident" of the safety associated with locally sourced seafood. This general finding was mirrored across Districts, with NWD respondents exhibiting a relatively lower level of confidence (64%) in imported seafood, while NED respondents indicated a relative higher level of confidence (58%) in local seafood.

**Key Finding:** Confidence in the safety of foreign seafood is low, whereas this perception is more positive for seafood from domestic, regional, and local origins.

### Q. 22 – If you answered "not confident" or "somewhat confident" to the safety of seafood from any of the regions in Q.21, please identify the top seafood safety concerns that influenced your decision for that region. (Table 22)

Respondents who indicated in Q.21 a relatively lower level of confidence in seafood from any source were then asked to indicate the reasons, from a suite of options (see Table 22). On a statewide basis, lower confidence in

imported seafood was due primarily to "bacteria" (26%), "chemicals" (21%), "additives/preservatives" (15%), and "mercury" (12%). With regard to domestic seafood, the same set of safety concerns were most frequently selected, but ranked in a different order (additives/preservatives" (9%), "mercury" (8%), "chemicals" (7%), and "bacteria" (5%). With regard to regional (Gulf of Mexico) seafood, "Oil" (15%) was the most frequently selected concern, likely due to lingering concerns over the BP Oil Spill that occurred during 2010. With regard to local seafood, the most frequently selected concerns were "chemicals" (6%), "mercury" (6%), and "oil" (5%). The relative frequency by which respondents identified issues of concerns for the various sources of seafood was approximately the same across IFAS Districts.

**Key Finding:** "Bacteria" and "chemicals" were cited as the primary reasons for the lack of confidence in foreign seafood safety. However, "mercury", "food poisoning" and "additives/preservatives" were identified as additional concerns.

### Q.23 – From where do you get your seafood information? (Table 23)

Respondents were gueried as to their sources of information about seafood. Respondents were asked to identify all that apply and the frequency with which they seek seafood information from each source they utilize. On a statewide basis, most respondents only occasionally sought information about seafood. And for those who did seek seafood information, a greater percentage did so via traditional media and informational outlets, such as TV (35%), newspapers (39%), printed educational materials (43%), and festivals and other public events (30%). Another more frequent utilized source was the internet (38%). Relatively few respondents more frequently sought seafood-related information via any these and any other sources. Respondents rarely

sought seafood information from the digital sources such as podcasts, mobile apps, and the social media. Relatively larger percentages of respondents indicate they never sought seafood information via podcasts (72%), social media (61%), mobile apps (73%), educational workshops (56%), webinars (67%), and workshops/demonstrations (62%). These findings were in general consistent across the IFAS Districts, with some exceptions. For NED respondents, TV, newspapers, and festivals and public events were less frequently utilized as information sources.

**Key Finding:** Respondents only occasionally sought information about seafood. When they did, traditional news sources (TV, newspapers, internet) and printed educational materials were the primary sources for information.

### Q. 24 – Indicate your level of trust of the following groups in providing you with accurate information about seafood. (Table 24)

Respondents were asked to express their level of trust in various sources of seafood-related information. A 1 to 5 Likert scale rating was utilized again, with "1" being "least trustful" and "5" being "most trustful". An average rating was computed across all responses by region and response choice. On a statewide basis, the highest average ratings value, or highest level of trust, was associated with "Universities" (4.0) and "Cooperative Extension" (4.0). The next highest ratings were associated with "Health care professionals" (3.6) and "Family/friends" (3.6). Lower ratings were associated with "Governmental agencies" (3.1), "Nongovernmental organizations" (3.0), and "Store attendants/fish mongers" (3.0). The lowest rating of trust was associated with "Industry". The relative rankings of ratings by information source were in general

consistent with respondents across the IFAS Districts.

**Key Finding:** Universities and the Cooperative Extension Service were the most trusted sources of accurate seafood information. Industry was regarded as the least trusted source.

### Q. 25 – Please indicate whether you agree or disagree with the following statements regarding seafood. (Table 25)

Respondents were asked to respond, with a choice of "Agree", "Disagree", or "Not Sure", to a series of statements designed to assess their level of seafood knowledge. All of the statements were true and factual. The statements concerned a variety of issues, including seafood quality, safety, management, and rules. On a statewide basis, the highest level of agreement was with statements concerning seafood freshness (84%), seafood processor safety standards (82%), and recommended seafood consumption levels (70%). Interestingly, more than half the respondents disagreed with the statement regarding the FDA mercury advisory, which was a true statement. In addition, a significant percentage of respondents indicated they were "Not Sure" about their knowledge concerning the statements about seafood dealer license requirements (44%), recommended internal temperature for cooked seafood (63%), Florida DOH advisories on locally caught fish (58%), and aquaculture/farm raised terminology (37%). Other statements also created significant uncertainty, with 25% and 23% of respondents indicating "Not Sure" for the FDA mercury advisory and the recommended weekly seafood serving statements, respectively. The findings regarding the respondent's agreement or uncertainty regarding the various seafood-related statements was consistent across the IFAS Districts.

**Key Finding:** Statewide, seafood consumers' mastery of seafood related information is generally low. The number of "Not Sure" responses on the statements indicates a need for additional seafood educational programs and/or information dissemination.

### Q. 26 – Please indicate whether you agree or disagree with the following statements regarding seafood. (Table 26)

Respondents were asked to provide their opinion regarding their level of agreement or disagreement with a series of seafood-related statements. The statements were neither true nor false, but rather simply addressed respondent perception concerning several seafood-related issues. Respondents were asked to indicate their level of agreement via a 1 to 5 Likert scale, with "1" indicating "Strong Disagreement", "3" being indifferent, and "5" indicating "Strongly Agree". An average rating was computed across all responses by region and response choice. On a statewide basis, most respondents expressed a higher level of agreement to being "comfortable" preparing seafood at home. And with the exception of disagreement (2.2) with the statement that imported seafood is a safe as local seafood, most respondents were somewhat indifferent ("Neither disagree or agree") with the other statements. Thus, respondents seemed unable to make a strong statement in agreement or disagreement about having adequate seafood information (3.1), ease in judging seafood (3.4), risks vs benefits of eating seafood (3.5), willingness to pay more for seafood (3.5), and being concerned about mercury in seafood (3). The findings were very consistent across IFAS Districts, with average Likert ratings being very similar by District.

**Key Finding:** The various statements presented regarding seafood were generally met with ambivalence,

however most respondents disagreed that foreign seafood was as safe as domestic, while most respondents agreed with being comfortable buying and preparing seafood in the home.

### DEMOGRAPHICS OF SURVEY RESPONDENTS

Demographic characteristics of the survey respondents were compared to that of the state of Florida as reported in the 2010 U.S. Census<sup>7</sup> (Table 27). Generally, survey respondents were comparable to that of Florida with some discrepancies. The majority of survey respondents (66.9%) were female as compared to 51% of the statewide population. African American and Hispanic populations were underrepresented in the survey pool and survey respondents were older than U.S. Census populations, though this age discrepancy may be associated with the study's requirement that survey respondents were at least 18 years of age or older. More survey respondents were married and had higher levels of education than that of the Florida population. Some of these demographic discrepancies may also be explained by the survey delivery methodologies, with an obvious bias toward that segment of the Florida population that would have a greater propensity to avail themselves to the internet and email usage.

In order to assess geographic representation of the survey respondents as compared to the Florida population, the number of respondents who completed the survey was compared to the statewide population, by county (**Table 28**). Counties were deemed to be disproportionately represented if the percentage of the respondents completing the survey within a given County differed by  $\pm$  5% difference from that County's percentage of the total Florida population. For example, the southeast Florida tri-county

region of Palm Beach, Broward and Miami-Dade Counties was underrepresented (i.e., differences of -5, -7and -12%, respectively), whereas Okaloosa County was overrepresented (i.e., a difference of +15%). This spatial distribution of survey respondents may have influenced demographic data in various ways, such as reducing the diversity in ethnic respondents. African Americans and Hispanics account for a dominant segment of the tri-county region's population (38, 70 and 84%, respectively), whereas Okaloosa County's populations is primarily comprised of White, non-Hispanics (76%).

Of those who did complete the survey, the majority (74%) have lived in Florida for more than 15 years. Only 7% of respondents have resided in Florida for less than 5 years. Note that survey recruitment relied heavily on the active participation of UF/IFAS County Extension and Sea Grant website visitors to click on the seafood survey link. This strategy provided broad regional coverage but targeted coastal counties. Despite this, survey responses were received from 52 of Florida's 67 counties (78%), including 21 of the 32 landlocked counties, suggesting strong statewide participation.

Data for other demographic questions are tabulated in Tables 29-36. These questions provided the data that are summarized in Table 27.

#### SUMMARY

A survey designed to assess perceptions, awareness, and knowledge regarding seafood was conducted as part of the UF/IFASfunded study "Seafood at Your Fingertips". The purpose of the overall study was to provide guidance for future educational programs oriented toward seafood consumption by Florida residents. The survey was administered during 2013 via email and website access. At total of 717 individuals responded to the survey, and provided information pertaining to their seafood purchasing and consumption patterns, as well knowledge, attitudes, and perceptions regarding seafood sources, safety, ability to identify species, and other factors that may impact the purchase and consumption of seafood. Floridians, on average, consume more seafood than the national average. Consumers are recognizing seafood as part of healthy diet, though the prohibitive cost of seafood is becoming a barrier to seafood consumption. This is important for Florida consumers who appear to have a strong affinity for U.S. sourced seafood. During the past several years, the influx of lower-cost, imported seafood has displaced local seafood in many commercial markets along with the rich traditions associated with it. Florida consumers want to purchase local seafood to support the economy but find barriers in knowing how or where to locate it. With imported seafood currently making up 86% of the market and growing, Florida consumers may find they are decreasing their seafood consumption due to misconceptions about the safety imported seafood. Universities and the Cooperative Extension Service are recognized as respected outlets for seafood information as long as they utilize appropriate outreach outlets such as traditional (educational brochures) and non-traditional (internet) strategies. The findings of the survey suggest that UF/IFAS Extension has an opportunity to deliver focused, seafood-based educational programs for Florida residents. Specific educational programs may focus on developing a "train-the-trainer" model for restaurant and retail staff to better assist with customer questions and needs. Other opportunities for seafood-related outreach programming include species identification, sustainability assurance, contaminant level and

related health issues, assessing freshness, proper handling of seafood, and increasing awareness of product sourcing. The survey findings should help extension educators better understand the consumerrelated educational opportunities associated with seafood, thereby helping the Florida seafood industry maintain a viable market share in the face of strong import competition.

### REFERENCES

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**Table 1.** Do you eat seafood such as any types and forms of finfish and/or shellfish? Examples include, but are not limited to: shrimp, canned tuna, salmon, tilapia, catfish, crab, cod, and clams and other types of aquatic products?

	Yes	No
Statewide (n = 717)	97	3
Northwest (n = 201)	98	2
Northeast (n = 49)	94	6
Central (n = 134)	98	2
South Central (n = 127)	93	7
South (n = 92)	99	1

**Table 2.** If you answered **No** to Question 1, please identify the primary reason(s) you do not eat seafood (*check all that apply*).

	Allergic to seafood	I don't like the taste of seafood	Seafood is too expensive to buy	I don't know how to prepare seafood	l'm worried about contamination issues	Seafood is not a sustainable food source	I am not familiar with where to purchase seafood products	The primary household meal preparer does not cook seafood
Statewide (n = 21)	10	48	5	14	19	10	5	24
Northwest (n = 4)	0	50	0	0	25	0	0	25
Northeast (n = 3)	0	33	0	33	33	0	33	66
Central (n = 2)	33	67	0	0	0	0	0	33
South Central (n = 9)	0	33	11	11	22	22	0	11
South (n = 1)	0	100	0	100	0	0	0	0

Table 3. If you answered Yes to Question 1, how often do you eat seafood?

	Less than once per week	1 -2 times per week	3 times or more per week
Statewide (n = 678)	38	50	13
Northwest (n = 196)	37	53	10
Northeast (n = 46)	52	37	9
Central (n = 134)	30	53	16
South Central (n = 118)	40	44	14
South (n = 90)	37	48	16

	0 – 20%	21 – 40%	41 – 60%	61 – 80%	81 – 100%
Statewide (n = 687)	7	3	4	8	77
Northwest (n = 196)	7	3	7	9	74
Northeast (n = 46)	4	4	4	9	78
Central (n = 131)	6	4	2	8	79
South Central (n = 118)	4	2	2	4	88
South (n = 90)	8	3	3	12	73

**Table 4.** What percentage of the seafood you eat is purchased from a store and/or restaurant as opposed to being self-caught?

Table 5. Do you consider yourself to have a varied seafood diet (i.e. you eat multiple types of finfish and shellfish)?

	Yes	No
Statewide (n = 689)	81	19
Northwest (n = 196)	84	16
Northeast (n = 46)	74	26
Central (n = 131)	81	19
South Central (n = 118)	85	15
South (n = 91)	80	20

**Table 6.** If you answered **No** to trying different types of seafood, what factor(s) prevent you from trying new varieties? (*select all that apply*)

	Allergies	Habit/ tradition	Do not like/ not sure of the taste	Some types are too expensive to buy	I don't know how to prepare other types of seafood	I'm worried about contamination issues	I am not familiar with where to purchase	The primary household meal preparer does not cook seafood
Statewide (n = 128)	7	32	52	47	26	20	14	12
Northwest (n = 32)	3	31	53	38	22	19	6	9
Northeast (n = 12)	8	25	33	42	33	8	8	33
Central (n = 25)	4	28	48	24	24	20	8	16
S Central (n = 18)	17	39	44	50	17	33	22	6
South (n = 18)	11	50	72	44	33	17	22	6

	Increased	Decreased	Stayed about the same
Statewide (n = 686)	43	21	36
Northwest (n = 196)	42	23	36
Northeast (n = 46)	43	20	37
Central (n = 131)	46	22	32
South Central (n = 118)	44	20	36
South (n = 91)	40	18	43

### **Table 7.** As compared to 5 to 10 years ago, how has the amount of seafood you consume changed?

Table 8. If your consum	ption has changed, what	are the reasons for that change?

	Prohibitive cost of seafood	Health benefits of seafood	Increased availability	Allergies	Decreased availability	Environmental concerns
Statewide (n=386)	26	53	29	1	7	19
Northwest (n = 127)	22	44	34	3	8	18
Northeast (n = 29)	31	52	28	0	10	10
Central (n = 89)	33	49	24	0	8	21
South Central (n = 76)	22	53	26	1	5	25
South (n = 52)	27	54	25	0	8	19

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	Freekraa	Deles	Health	Sustainable	Flavor/	Ease of		Former and a set	Country of	Habit/	A !! !!!!!
<u>1st CHOICE</u> Statewide (n = 650)	Freshness 60	Price 23	benefits 18	source 15	taste 33	preparation 12	Wild caught 15	Farm raised 5	origin 17	tradition 9	Availability 19
Northwest (n = 201)	63	23	10	10	33	12	15	3	17	12	20
Northeast (n = $46$ )	61	17	17	7	37	13	17	7	22	9	13
Central (n = 131)	61	27	15	15	31	11	21	7	22	7	19
South Central ( $n = 131$ )	51	23	21	21	29	8	11	6	11	9	17
South (n = 91)	63	23	18	15	27	9	9	2	11	5	10
					EL /	F (					
2 <sup>nd</sup> CHOICE	Freshness	Price	Health benefits	Sustainable source	Flavor/ taste	Ease of preparation	Wild caught	Farm raised	Country of origin	Habit/ tradition	Availability
Statewide (n = 650)	16	31	15	13	14	11	15	9	11	7	10
Northwest (n = 201)	15	31	17	14	17	13	12	8	10	5	9
Northeast (n = 46)	11	22	20	20	17	11	11	4	13	11	9
Central (n = 131)	21	33	18	11	11	11	16	11	9	6	11
South Central (n = 118)	12	31	11	14	14	9	18	7	12	5	8
South (n = 91)	15	33	8	7	12	11	20	9	7	7	12
			Health	Sustainable	Flavor/	Ease of			Country of	Habit/	
3 <sup>rd</sup> CHOICE	Freshness	Price	benefits	source	taste	preparation	Wild caught	Farm raised	origin	tradition	Availability
Statewide (n = 650)	6	19	12	9	8	10	12	11	10	11	12
Northwest (n = 201)	6	16	9	5	7	11	13	14	12	12	10
Northeast (n = 46)	9	28	13	9	11	4	4	11	7	2	17
Central (n = 131)	4	21	16	14	8	12	10	12	6	15	14
South Central (n = 118)	6	14	14	7	9	8	8	8	13	8	12
South (n = 91)	5	18	14	15	9	7	13	9	12	11	13

Table 9. Please identify the top 3 factors in order of importance that influence your seafood purchasing decisions.

Roadside Vendors

Statewide (n = 648)	Never	Rarely	Occasionally	Frequently	Not Sure
Local Seafood Markets	15	24	29	28	0
Restaurants	4	9	40	44	0
Grocery Stores	6	15	29	47	0
Farmers Markets	63	17	9	2	1
Roadside Vendors	73	12	5	1	0
Northwest					
(n = 196)	Never	Rarely	Occasionally	Frequently	Not Sure
Local Seafood Markets	8	21	29	40	0
Restaurants	2	8	44	44	0
Grocery Stores	12	20	29	34	1
Farmers Markets	68	17	2	1	2
Roadside Vendors	69	14	7	0	1
Northeast					
(n = 46)	Never	Rarely	Occasionally	Frequently	Not Sure
Local Seafood Markets	17	22	30	24	0
Restaurants	4	4	41	46	0
Grocery Stores	2	17	28	43	2
Farmers Markets	59	17	11	4	0
Roadside Vendors	70	11	7	2	0
<b>Central</b> (n = 130)	Never	Rarely	Occasionally	Frequently	Not Sure
Local Seafood Markets	25	25	25	21	1
Restaurants	7	16	35	39	0
Grocery Stores	3	14	27	55	0
Farmers Markets	55	18	19	3	2
Roadside Vendors	75	13	6	1	0
South Control					
South Central (n = 118)	Never	Rarely	Occasionally	Frequently	Not Sure
Local Seafood Markets	22	32	24	19	0
Restaurants	1	8	42	47	0
Grocery Stores	3	13	25	58	0
Farmers Markets	61	18	9	3	1
Roadside Vendors	74	11	3	1	0
<b>South</b> (n = 91)	Never	Rarely	Occasionally	Frequently	Not Sure
Local Seafood Markets	10	21	35	29	1
Restaurants	7	10	33	46	0
Grocery Stores	7	10	31	51	0
Farmers Markets	68	15	8	0	1
		1.1	0	V.	1

### Table 10. When you purchase seafood, how often do you purchase it from (select one from each row)

	Location	Knowledge of Staff	Freshness	Variety	Price	Local Seafood Availability
Statewide (n = 628)	57	19	64	30	48	42
Northwest (n = 195)	55	21	67	31	52	49
Northeast (n = 40)	55	20	56	28	33	45
Central (n = 131)	56	18	61	29	47	37
S. Central (n = 118)	60	15	58	25	42	32
South (n = 90)	51	20	63	29	41	44

### Table 11. Why do you purchase seafood where you do? (select all that apply)

### Table 12. How often do you purchase seafood that is caught/raised in (select one for each row)

Statewide (n = 645)	Never	< 50% of the time	>50% of the time	Always	Not Sure
Foreign countries	33	34	8	0	24
United States	1	13	36	27	20
Gulf of Mexico	4	16	36	12	28
Florida	2	16	38	16	26
Northwest					
(n = 196)	Never	< 50% of the time	>50% of the time	Always	Not Sure
Foreign countries	41	27	7	0	20
United States	2	15	34	31	14
Gulf of Mexico	4	17	37	18	19
Florida	2	16	40	17	20
Northeast					
(n = 46)	Never	< 50% of the time	>50% of the time	Always	Not Sure
Foreign countries	30	35	7	0	28
United States	0	7	37	30	26
Gulf of Mexico	0	15	46	11	26
Florida	0	9	52	17	22
Central					
(n = 131)	Never	< 50% of the time	>50% of the time	Always	Not Sure
Foreign countries	28	31	8	0	29
0			21	33	
United States	0	13	31	აა	23
United States Gulf of Mexico	0 5	<u> </u>	29	10	23 38
Gulf of Mexico Florida	5	15	29	10	38
Gulf of Mexico	5	15	29	10	38
Gulf of Mexico Florida South Central	52	15 15	29 33	10 16	<b>38</b> 32
Gulf of Mexico Florida South Central (n = 117)	5 2 Never	15 15 < 50% of the time	29 33 >50% of the time	10 16 Always	38 32 Not Sure
Gulf of Mexico Florida South Central (n = 117) Foreign countries	5 2 Never 21	15 15 < 50% of the time 45	29 33 >50% of the time 9	10 16 Always 0	38 32 Not Sure 24
Gulf of Mexico Florida South Central (n = 117) Foreign countries United States	5 2 <u>Never</u> 21 0	15 15 < 50% of the time 45 18	29 33 >50% of the time 9 43	10 16 Always 0 20	38 32 Not Sure 24 19
Gulf of Mexico Florida South Central (n = 117) Foreign countries United States Gulf of Mexico Florida	5 2 Never 21 0 2	15 15 < 50% of the time 45 18 13	29 33 >50% of the time 9 43 50	10 16 Always 0 20 7	38 32 Not Sure 24 19 27
Gulf of Mexico Florida South Central (n = 117) Foreign countries United States Gulf of Mexico Florida South	5 2 <u>Never</u> 21 0 2 1	15 15 < 50% of the time 45 18 13 18	29 33 >50% of the time 9 43 50 39	10 16 Always 0 20 7 9	38 32 Not Sure 24 19 27 30
Gulf of Mexico Florida South Central (n = 117) Foreign countries United States Gulf of Mexico Florida South (n = 90)	5 2 Never 21 0 2 1 Never	15 15 < 50% of the time 45 18 13 18 < 50% of the time	29 33 >50% of the time 9 43 50 39 >50% of the time	10 16 Always 0 20 7 9 Always	38 32 Not Sure 24 19 27 30 Not Sure
Gulf of Mexico Florida South Central (n = 117) Foreign countries United States Gulf of Mexico Florida South (n = 90) Foreign countries	5 2 Never 21 0 2 1 1 Never 37	15 15 < 50% of the time 45 18 13 13 18 < 50% of the time 32	29 33 >50% of the time 9 43 50 39 >50% of the time 6	10 16 Always 0 20 7 9 9 Always 1	38 32 Not Sure 24 19 27 30 Not Sure 24
Gulf of Mexico Florida South Central (n = 117) Foreign countries United States Gulf of Mexico Florida South (n = 90)	5 2 Never 21 0 2 1 Never	15 15 < 50% of the time 45 18 13 18 < 50% of the time	29 33 >50% of the time 9 43 50 39 >50% of the time	10 16 Always 0 20 7 9 Always	38 32 Not Sure 24 19 27 30 Not Sure

<u>Statewide</u> (n = 644)	Very unimportant	Unimportant	Neither unimportant or important	Important	Very important	Scale Average
Foreign countries	12	7	17	21	39	3.7
United States	9	4	14	29	43	4
Gulf of Mexico	8	5	20	31	34	3.8
Florida	9	5	18	32	35	3.8
	-					0.0
Northwest	Very		Neither unimportant		Very	Scale
(n = 195)	unimportant	Unimportant	or important	Important	important	Average
Foreign countries	25	7	18	17	41	3.7
United States	18	3	11	28	45	4
Gulf of Mexico	20	4	15	32	36	3.8
Florida	23	4	16	31	35	3.7
						-
Northeast	Very		Neither unimportant		Very	Scale
(n = 46)	unimportant	Unimportant	or important	Important	important	Average
Foreign countries	11	7	24	17	37	3.7
United States	4	4	20	28	43	4
Gulf of Mexico	4	7	20	30	39	4
Florida	4	7	15	35	39	4
<u>Central</u>	Very		Neither unimportant		Very	Scale
(n = 131)	unimportant	Unimportant	or important	Important	important	Average
Foreign countries	11	7	15	26	37	3.7
United States	8	3	12	30	44	4
Gulf of Mexico	8	6	24	30	28	3.7
Florida	8	4	21	29	36	3.8
South Central	Very		Neither unimportant		Very	Scale
(n = 111)	unimportant	Unimportant	or important	Important	important	Average
Foreign countries	12	6	21	22	42	3.7
United States	9	2	16	32	45	4
Gulf of Mexico	6	3	19	38	37	3.9
Florida	7	3	21	39	36	3.9
<u>South</u>	Very		Neither unimportant		Very	Scale
(n = 90)	unimportant	Unimportant	or important	Important	important	Average
Foreign countries	13	8	12	26	39	3.7
United States	8	7	16	26	43	4
Gulf of Mexico	8	8	23	32	27	3.9
Florida	7	8	16	36	31	3.9

### Table 13. How important is it to you to know that the seafood you purchased was caught/raised in (select one for each row)

**Table 14.** On a scale of 1 to 5 with 1 being the "most negative" and 5 being the "most positive," indicate your opinion of the following seafood origins.

Statewide (n=552)	1	2	3	4	5	Scale Average
Foreign countries	59	24	22	4	3	1.8
United States	1	5	26	33	48	4.1
Gulf of Mexico	5	3	20	37	47	4.1
Florida	2	2	16	28	65	4.3
Northwest (n=201)	1	2	3	4	5	Scale Average
Foreign countries	51	2	15	2	1	1.4
United States	1	4	22	28	38	3.9
Gulf of Mexico	4	2	12	28	48	4.4
Florida	1	2	14	24	53	4.6
Northeast (n=49)	1	2	3	4	5	Scale Average
Foreign countries	53	16	22	0	0	1.7
United States	0	6	18	37	31	4.0
Gulf of Mexico	0	2	6	43	39	4.3
Florida	0	2	6	27	55	4.5
Control (n. 124)	1	2	3	4	5	Casla Average
Central (n=134)			22	<u>4</u> 5		Scale Average
Foreign countries United States	45 1	18 2	  	23	4 50	2.0
Gulf of Mexico	4	2	22	<u> </u>	<u>50</u> 34	4.0
Florida	4 1	0	17	19	57	4.0
TIUTUd	l	0	17	17	57	4.4
South Central (n=127)	1	2	3	4	5	Scale Average
Foreign countries	48	23	16	3	2	1.8
United States	0	6	24	28	35	4.0
Gulf of Mexico	2	4	13	35	37	4.1
Florida	1	2	9	26	53	4.4
South (n=92)	1	2	3	4	5	Scale Average
Foreign countries	54	13	21	4	3	1.8
United States	0	2	23	27	42	4.2
Gulf of Mexico	4	5	30	26	28	3.7
Florida	3	1	15	21	55	4.3

	Not confident at all	Somewhat confident	Confident	Very confident	Not sure
Statewide (n = 646)	32	35	18	9	7
Northwest (n = 196)	29	34	17	13	8
Northeast (n = 46)	30	28	30	9	2
Central (n = 130)	35	32	11	13	9
South Central (n = 117)	32	44	16	3	3
South (n = 91)	36	36	15	4	8

Table 15. When purchasing seafood from a retailer how confident are you in your ability to identify whether it is from
Florida?

**Table 16.** When purchasing seafood at a restaurant how confident are you in your ability to identify whether it is from Florida?

	Not confident at all	Somewhat confident	Confident	Very confident	Not sure
Statewide (n = 645)	58	27	6	1	9
Northwest (n = 196)	52	32	6	1	10
Northeast (n = 46)	52	33	7	2	4
Central (n = 129)	64	19	4	2	12
South Central (n = 118)	55	30	8	1	6
South (n = 91)	67	20	4	0	9

**Table 17.** What steps, if any, do you take to identify if the seafood you purchase is caught or raised in Florida? (select all that apply)

	l don't take any steps	Look for Fresh from Florida logo	Ask the waiter or store attendant	Buy it directly from certified fishermen dealer	l don't eat Florida seafood
Statewide (n=627)	26	36	56	23	1
Northwest (n=196)	22	31	64	31	1
Northeast (n=45)	24	40	60	13	0
Central (n=130)	31	40	45	20	1
South Central (n=117)	25	37	55	17	2
South (n=90)	29	32	50	17	0

	lt's fresher	Tastes better	Support of local fishermen/ economy	Safer to eat than imported seafood	More affordable	More sustainable than other sources	Don't know	l don't eat Florida seafood
Statewide (n=616)	65	29	79	39	18	16	8	2
Northwest (n=197)	69	35	78	38	20	11	7	1
Northeast (n=44)	57	25	82	39	14	18	7	0
Central (n=130)	58	22	72	34	20	17	12	2
S. Central (n=114)	60	28	81	37	11	21	5	2
South (n=88)	61	28	73	50	18	19	10	1

Table 18. Why do you choose to purchase seafood caught/raised in Florida? (select all that apply)

Table 19. What barrier(s), if any, cause you to NOT purchase seafood caught/raised in Florida? (select all that apply)

	Don't know where to find it	Never available	Don't know what types of seafood are caught/ raised in Florida	Cost prohibitive	Difficult to prepare
Statewide (n=374)	45	12	37	29	5
Northwest (n=137)	23	7	23	30	7
Northeast (n=34)	26	6	41	21	9
Central (n=120)	42	11	29	16	2
South Central (n=89)	42	10	30	19	4
South (n=61)	44	10	34	30	0

Table 20. How confident are you at finding locations where Florida seafood is sold?

	Not confident at all	Somewhat confident	Confident	Very Confident	Not sure
Statewide (n = 642)	22	30	21	22	6
Northwest (n = 193)	15	25	24	34	3
Northeast (n = 46)	15	37	9	30	9
Central (n = 131)	30	34	16	11	8
South Central (n = 118)	30	35	19	14	3
South (n = 91)	23	31	22	15	9

### Table 21. How confident are you in the safety of seafood caught/raised in:

Statewide (n=592)	Not confident at all	Somewhat confident	Confident	Very confident	Not sure
Foreign countries	59	27	8	1	5
United States	2	24	44	26	3
Gulf of Mexico	6	21	33	35	4
Florida	3	16	34	43	4
Northwest (n=198)	Not confident at all	Somewhat confident	Confident	Very confident	Not sure
Foreign countries	64	24	6	1	3
United States	3	26	45	22	2
Gulf of Mexico	6	19	32	40	2
Florida	4	16	32	43	3
Northeast (n=45)	Not confident at all	Somewhat confident	Confident	Very confident	Not sure
Foreign countries	56	33	9	0	4
United States	2	20	44	31	4
Gulf of Mexico	2	13	33	47	7
Florida	0	11	29	58	4
Central (n=130)	Not confident at all	Somewhat confident	Confident	Very confident	Not sure
Foreign countries	54	28	10	1	7
United States	1	18	45	29	6
Gulf of Mexico	5	22	32	31	8
Florida	1	15	33	45	6
South Central (n=118)	Not confident at all	Somewhat confident	Confident	Very confident	Not sure
Foreign countries	59	26	9	1	3
United States	3	27	43	25	2
Gulf of Mexico	5	23	37	32	3
Florida	3	18	39	38	2
South (n=91)	Not confident at all	Somewhat confident	Confident	Very confident	Not sure
Foreign countries	58	27	7	1	7
United States	1	27	37	30	3
Gulf of Mexico	9	30	27	27	5
Florida	3	18	34	40	4

**Table 22.** If you answered "not confident" or "somewhat confident" to the safety of seafood from any of the regions in the previous question, please identify the top seafood safety concern that influenced your decision for that region using the dropdown menus below.

Statewide	Mercury	Allergies	Oil	Bacteria	Food poisoning	Additives/ preserva- tives	Chemicals	Bones and/or shells	Other	Does not apply
Foreign countries	12	0	0	26	11	15	21	0	11	2
United States	8	1	1	5	2	9	7	0	4	16
Gulf of Mexico	4	0	15	3	1	2	7	0	3	16
Florida	6	1	5	3	1	2	6	0	3	20

Northwest	Mercury	Allergies	Oil	Bacteria	Food poisoning	Additives/ preserva- tives	Chemicals	Bones and/or shells	Other	Does not apply
Foreign countries	12	0	0	28	8	18	20	0	10	1
United States	5	1	2	7	1	10	6	0	2	15
Gulf of Mexico	2	0	14	2	0	1	6	1	1	18
Florida	3	0	8	2	1	2	5	0	2	19

Northeast	Mercury	Allergies	Oil	Bacteria	Food poisoning	Additives/ preserva- tives	Chemicals	Bones and/or shells	Other	Does not apply
Foreign countries	17	0	0	24	19	12	19	0	2	10
United States	10	2	0	2	2	12	10	0	0	17
Gulf of Mexico	7	0	17	2	5	2	0	0	0	24
Florida	10	2	7	0	5	0	5	0	0	24

Central	Mercury	Allergies	Oil	Bacteria	Food poisoning	Additives/ preserva- tives	Chemicals	Bones and/or shells	Other	Does not apply
Foreign countries	13	1	1	21	11	14	22	0	16	1
United States	6	0	1	4	1	8	6	0	6	20
Gulf of Mexico	3	0	17	3	2	1	8	0	4	19
Florida	5	1	3	6	1	1	4	0	6	24

South Central	Mercury	Allergies	Oil	Bacteria	Food poisoning	Additives/ preserva- tives	Chemicals	Bones and/or shells	Other	Does not apply
Foreign countries	13	0	0	30	8	13	25	0	10	0
United States	12	1	0	1	4	8	10	0	5	11
Gulf of Mexico	6	1	12	3	0	4	7	0	5	11
Florida	7	1	2	3	1	5	7	0	3	15

South	Mercury	Allergies	Oil	Bacteria	Food poisoning	Additives/ preserva- tives	Chemicals	Bones and/or shells	Other	Does not apply
Foreign countries	11	0	0	2	15	14	20	0	15	0
United States	14	0	0	7	1	7	5	0	4	16
Gulf of Mexico	3	0	6	5	4	4	15	0	3	7
Florida	11	1	1	4	1	3	7	0	3	18

### Table 23. From where do you get your seafood information?

### Statewide

(n = 562)	Never	Rarely	Occasionally	Frequently
TV	24	27	35	7
Newspapers	21	21	39	12
Internet	18	12	38	26
Podcasts	72	10	4	1
Social Media (Facebook, Twitter, YouTube)	61	14	10	3
Mobile Apps	73	8	5	2
Printed Educational materials	18	18	43	14
Educational Workshops	56	17	13	3
Webinars (online presentations)	67	13	7	1
Workshops/demonstrations	62	14	10	2
Festivals and public events	30	25	30	6

### Northwest

(n = 185)	Never	Rarely	Occasionally	Frequently
TV	19	24	43	11
Newspapers	18	21	41	15
Internet	24	12	37	20
Podcasts	71	10	3	2
Social Media (Facebook, Twitter, YouTube)	64	10	9	4
Mobile Apps	76	6	4	2
Printed Educational materials	18	18	47	11
Educational Workshops	58	18	9	3
Webinars (online presentations)	69	15	5	1
Workshops/demonstrations	65	12	11	2
Festivals and public events	28	24	32	5

### Northeast

(n = 45)	Never	Rarely	Occasionally	Frequently
TV	31	29	24	9
Newspapers	31	27	18	20
Internet	18	16	42	22
Podcasts	71	9	7	0
Social Media (Facebook, Twitter, YouTube)	56	20	13	2
Mobile Apps	71	11	4	0
Printed Educational materials	27	16	42	9
Educational Workshops	58	11	16	2
Webinars (online presentations)	67	13	7	0
Workshops/demonstrations	67	11	7	0
Festivals and public events	42	24	18	9

Central

(n = 126)	Never	Rarely	Occasionally	Frequently
TV	25	29	31	3
Newspapers	25	19	40	6
Internet	15	10	37	33
Podcasts	72	7	4	2
Social Media (Facebook, Twitter, YouTube)	56	14	10	5
Mobile Apps	70	6	7	3
Printed Educational materials	19	17	38	17
Educational Workshops	51	17	13	4
Webinars (online presentations)	63	11	7	3
Workshops/demonstrations	57	13	13	3
Festivals and public events	33	20	31	4

### South Central

(n = 114)	Never	Rarely	Occasionally	Frequently
TV	25	31	32	4
Newspapers	20	18	46	11
Internet	13	12	39	28
Podcasts	74	11	3	1
Social Media (Facebook, Twitter, YouTube)	61	17	10	1
Mobile Apps	74	6	7	1
Printed Educational materials	17	14	44	18
Educational Workshops	50	19	17	4
Webinars (online presentations)	68	11	6	3
Workshops/demonstrations	60	16	10	2
Festivals and public events	25	28	31	5

### South

(n = 86)	Never	Rarely	Occasionally	Frequently
TV	30	27	31	6
Newspapers	19	24	36	13
Internet	17	12	36	31
Podcasts	72	10	6	1
Social Media (Facebook, Twitter, YouTube)	63	12	13	3
Mobile Apps	74	10	5	1
Printed Educational materials	15	26	37	13
Educational Workshops	65	12	12	1
Webinars (online presentations)	69	12	10	0
Workshops/demonstrations	66	14	8	1
Festivals and public events	34	28	26	6

**Table 24.** Indicate your level of trust of the following groups in providing you with accurate information about seafoodwith 1 being the "least trustful" and 5 being the "most trustful."

Statewide (n=573)	1	2	3	4	5	Scale Average
Non-governmental organizations	10	18	37	24	7	3.0
Governmental agencies	11	17	32	29	10	3.1
Universities	1	5	18	42	32	4.0
Industry	13	26	39	17	4	2.7
Health care professionals	2	7	32	40	17	3.6
Cooperative Extension Service	2	4	21	37	33	4.0
Family/friends	3	11	32	32	20	3.6
Store attendants/fish mongers	8	20	37	28	6	3.0
Northwest (n=201)	1	2	3	4	5	Scale Average
Non-governmental organizations	10	16	37	23	5	3.2
Governmental agencies	12	20	25	27	9	3.1
Universities	1	5	21	41	25	4.1
Industry	11	19	39	20	4	2.7
Health care professionals	1	5	30	41	16	3.7
Cooperative Extension Service	3	3	21	35	31	4.2
Family/friends	3	8	26	33	24	3.9
Store attendants/fish mongers	8	17	34	27	7	3.3
Northeast (n=49)	1	2	3	4	5	Scale Average
Non-governmental organizations	6	18	33	24	10	3.2
Governmental agencies	10	18	22	27	12	3.1
Universities	0	4	18	31	39	4.1
Industry	6	31	41	10	2	2.7
Health care professionals	4	6	22	37	20	3.7
Cooperative Extension Service	2	4	10	31	45	4.2
Family/friends	2	4	20	41	24	3.9
Store attendants/fish mongers	2	14	31	41	4	3.3
Central (n=134)	1	2	3	4	5	Scale Average
Non-governmental organizations	9	18	35	27	6	3.0
Governmental agencies	10	14	39	24	8	3.1
Universities	0	5	17	35	35	4.1
Industry	10	24	40	14	4	2.8
Health care professionals	3	7	37	28	18	3.6
Cooperative Extension Service	1	4	21	35	32	4.0
•	4					
Family/friends	4	12	39	22	17	3.4

South Central (n=127)	1	2	3	4	5	Scale Average
Non-governmental organizations	10	18	27	21	13	3.1
Governmental agencies	11	11	31	27	10	3.2
Universities	2	2	13	43	29	4.1
Industry	21	25	31	8	3	2.4
Health care professionals	2	9	24	40	15	3.6
Cooperative Extension Service	2	5	14	36	31	4.0
Family/friends	6	14	30	28	11	3.3
Store attendants/fish mongers	9	24	33	20	3	2.8
South (n=92)	1	2	3	4	5	Scale Average
South (n=92) Non-governmental organizations	1 9	2 16	3 42	4	5 7	Scale Average 3.0
. ,	1 9 5	_	-			ş
Non-governmental organizations	•	16	42	16	7	3.0
Non-governmental organizations Governmental agencies	5	16 11	42 34	16 30	7 11	3.0 3.3
Non-governmental organizations Governmental agencies Universities	5	16 11 4	42 34 15	16 30 35	7 11 30	3.0 3.3 4.0
Non-governmental organizations         Governmental agencies         Universities         Industry	5 3 12	16 11 4	42 34 15 30	16 30 35 21	7 11 30 2	3.0 3.3 4.0 2.7
Non-governmental organizationsGovernmental agenciesUniversitiesIndustryHealth care professionals	5 3 12 0	16 11 4 26 7	42 34 15 30 32	16 30 35 21 39	7 11 30 2 13	3.0 3.3 4.0 2.7 3.7

Table 25. Please indicate whether	you agree or disagree with the followin	a statements regarding seafood
Tuble 25: Thease maleate whether	you agree of alsagree with the followin	g statements regarding searood.

Statewide (n=582)	Agree	Disagree	Not Sure
Fresh seafood can be identified by its smell and appearance.	84	9	7
In Florida it is illegal to sell seafood without a commercial seafood dealer license.	46	10	44
The recommended internal temperature for cooked seafood is 145 degrees F.	28	9	63
Seafood processors in Florida must obey local, state, and national safety standards.	82	2	16
The FDA (Food and Drug Administration) and EPA (Environmental Protection Agency) Consumer Advisory about mercury is only intended for pregnant and nursing women and small children.	17	59	25
Florida's Department of Health (DOH) posts fish consumption advisories for locally caught fish in each of ts counties.	35	8	58
Aquaculture and farm-raised seafood mean the same thing.	33	30	37
Health experts recommend the average consumer eat two or more servings of a variety of seafood each week.	70	7	23
Northwest (n=194)	Agree	Disagree	Not Sure
Fresh seafood can be identified by its smell and appearance.	84	7	10
In Florida it is illegal to sell seafood without a commercial seafood dealer license.	45	8	42
The recommended internal temperature for cooked seafood is 145 degrees F.	26	12	62
Seafood processors in Florida must obey local, state, and national safety standards.	79	1	15
The FDA (Food and Drug Administration) and EPA (Environmental Protection Agency) Consumer Advisory about mercury is only intended for pregnant and nursing women and small children.	15	61	24
Florida's Department of Health (DOH) posts fish consumption advisories for locally caught fish in each of its counties.	36	12	52
Aquaculture and farm-raised seafood mean the same thing.	28	32	40
Health experts recommend the average consumer eat two or more servings of a variety of seafood each week.	74	8	18
Northeast (n=46)	Agree	Disagree	Not Sure
Fresh seafood can be identified by its smell and appearance.	85	13	2
n Florida it is illegal to sell seafood without a commercial seafood dealer license.	46	15	39
The recommended internal temperature for cooked seafood is 145 degrees F.	33	4	63
Seafood processors in Florida must obey local, state, and national safety standards.	78	2	20
The FDA (Food and Drug Administration) and EPA (Environmental Protection Agency) Consumer Advisory about mercury is only intended for pregnant and nursing women and small children.	26	43	30
Florida's Department of Health (DOH) posts fish consumption advisories for locally caught fish in each of ts counties.	33	7	61
Aquaculture and farm-raised seafood mean the same thing.	33	28	39
Health experts recommend the average consumer eat two or more servings of a variety of seafood each week.	78	7	15

Central (n=129)	Agree	Disagree	Not Sure
Fresh seafood can be identified by its smell and appearance.	88	9	3
In Florida it is illegal to sell seafood without a commercial seafood dealer license.	46	12	43
The recommended internal temperature for cooked seafood is 145 degrees F.	30	12	58
Seafood processors in Florida must obey local, state, and national safety standards.	84	3	13
The FDA (Food and Drug Administration) and EPA (Environmental Protection Agency) Consumer Advisory about mercury is only intended for pregnant and nursing women and small children.	16	61	22
Florida's Department of Health (DOH) posts fish consumption advisories for locally caught fish in each of its counties.	35	10	55
Aquaculture and farm-raised seafood mean the same thing.	35	34	30
Health experts recommend the average consumer eat two or more servings of a variety of seafood each week.	66	9	26
South Central (n=116)	Agree	Disagree	Not Sure
Fresh seafood can be identified by its smell and appearance.	81	11	8
In Florida it is illegal to sell seafood without a commercial seafood dealer license.	41	10	50
The recommended internal temperature for cooked seafood is 145 degrees F.	30	4	66
Seafood processors in Florida must obey local, state, and national safety standards.	81	1	18
The FDA (Food and Drug Administration) and EPA (Environmental Protection Agency) Consumer Advisory about mercury is only intended for pregnant and nursing women and small children.	16	59	25
Florida's Department of Health (DOH) posts fish consumption advisories for locally caught fish in each of its counties.	37	3	60
Aquaculture and farm-raised seafood mean the same thing.	40	28	33
Health experts recommend the average consumer eat two or more servings of a variety of seafood each week.	70	9	22
South (n=86)	Agree	Disagree	Not Sure
Fresh seafood can be identified by its smell and appearance.	85	8	7
In Florida it is illegal to sell seafood without a commercial seafood dealer license.	51	8	41
The recommended internal temperature for cooked seafood is 145 degrees F.	28	7	65
Seafood processors in Florida must obey local, state, and national safety standards.	83	1	16
The FDA (Food and Drug Administration) and EPA (Environmental Protection Agency) Consumer Advisory about mercury is only intended for pregnant and nursing women and small children.	17	57	26
Florida's Department of Health (DOH) posts fish consumption advisories for locally caught fish in each of its counties.	27	3	69
Aquaculture and farm-raised seafood mean the same thing.	31	26	43
Health experts recommend the average consumer eat two or more servings of a variety of seafood each week.	64	3	33

Statewide (n = 583)	Strongly Disagree (1)	Disagree (2)	Neither disagree or agree (3)	Agree (4)	Strongly Agree (5)	Scale Average
I have adequate information about seafood safety.	5	25	30	35	4	3.1
Seafood imported into the U.S. is as safe as locally harvested seafood.	22	42	27	5	1	2.2
I feel comfortable buying and preparing seafood at home.	2	5	8	48	35	4.1
It is easy to judge the freshness of seafood.	1	21	28	38	10	3.4
The health benefits of eating seafood outweigh the health risks.	3	13	26	41	15	3.5
I am willing to pay more for seafood if I know it's from Florida.	2	12	30	40	14	3.5
I worry about mercury when eating seafood.	7	27	28	26	9	3

**Table 26.** Please indicate whether you agree or disagree with the following statements regarding seafood.

Northwest (n = 195)	Strongly Disagree	Disagree	Neither disagree or agree	Agree	Strongly Agree	Scale Average
I have adequate information about seafood safety.	3	22	28	44	4	3.2
Seafood imported into the U.S. is as safe as locally harvested seafood.	22	47	26	3	1	2.1
I feel comfortable buying and preparing seafood at home.	1	5	8	50	35	4.1
It is easy to judge the freshness of seafood.	2	18	31	36	12	3.4
The health benefits of eating seafood outweigh the health risks.	4	12	28	41	15	3.5
I am willing to pay more for seafood if I know it's from Florida.	3	11	31	40	14	3.5
I worry about mercury when eating seafood.	8	35	25	26	6	2.9

Northeast (n = 46)	Strongly Disagree	Disagree	Neither disagree or agree	Agree	Strongly Agree	Scale Average
I have adequate information about seafood safety.	7	20	33	37	4	3.1
Seafood imported into the U.S. is as safe as locally harvested seafood.	22	39	20	15	4	2.4
I feel comfortable buying and preparing seafood at home.	2	11	13	43	30	3.9
It is easy to judge the freshness of seafood.	0	28	20	41	11	3.3
The health benefits of eating seafood outweigh the health risks.	2	15	20	41	17	3.6
I am willing to pay more for seafood if I know it's from Florida.	2	17	26	30	24	3.6
I worry about mercury when eating seafood.	9	24	30	28	9	3

Central (n = 129)	Strongly Disagree	Disagree	Neither disagree or agree	Agree	Strongly Agree	Scale average
I have adequate information about seafood safety.	8	28	26	33	5	3
Seafood imported into the U.S. is as safe as locally harvested seafood.	21	37	34	7	1	2.3
I feel comfortable buying and preparing seafood at home.	2	5	7	43	43	4.2
It is easy to judge the freshness of seafood.	2	21	25	39	14	3.4
The health benefits of eating seafood outweigh the health risks.	5	11	26	42	16	3.5
I am willing to pay more for seafood if I know it's from Florida.	5	14	29	39	13	3.4
I worry about mercury when eating seafood.	8	26	33	26	9	3

South Central (n = 116)	Strongly Disagree	Disagree	Neither disagree or agree	Agree	Strongly Agree	Scale average
I have adequate information about seafood safety.	2	31	36	29	2	3
Seafood imported into the U.S. is as safe as locally harvested seafood.	21	45	29	4	1	2.2
I feel comfortable buying and preparing seafood at home.	2	4	9	53	32	4.1
It is easy to judge the freshness of seafood.	3	22	31	39	5	3.2
The health benefits of eating seafood outweigh the health risks.	0	16	24	42	17	3.6
I am willing to pay more for seafood if I know it's from Florida.	0	12	28	47	11	3.6
I worry about mercury when eating seafood.	3	26	30	28	11	3.2

South _ (n = 87)	Strongly Disagree	Disagree	Neither disagree or agree	Agree	Strongly Agree	Scale average
I have adequate information about seafood safety.	8	29	31	29	32	2.9
Seafood imported into the U.S. is as safe as locally harvested seafood.	29	41	25	3	1	2.1
I feel comfortable buying and preparing seafood at home.	2	3	8	54	33	4.1
It is easy to judge the freshness of seafood.	0	23	28	41	9	3.4
The health benefits of eating seafood outweigh the health risks.	1	14	28	41	14	3.5
I am willing to pay more for seafood if I know it's from Florida.	0	10	34	44	11	3.6
I worry about mercury when eating seafood.	10	21	29	28	13	3.1

	# of Respondents	Survey (%)	Florida (%)*
GENDER			
Male	198	33.1	48.9
Female	401	66.9	51.1
AGE			
18-24	14	2.3	13*
25-34	68	11.3	12.2
35-44	91	15.1	13
45-54	135	22.5	14.6
55-64	183	30.4	12.4
65 and older	110	18.3	17.4
ETHNICITY			
African American	9	1.5	16.6
Caucasian	517	87.2	57
Hispanic	32	5.4	23
Native American	12	2.0	0.5
Asian	6	1.0	2.7
Multi-racial	12	2.0	1.9
MARITAL STATUS*			
Married	413	69.2	50.5, 46.4
Single (never married)	78	13.1	33.2, 25.9
Divorced/Separated	79	13.3	13.1, 16.8
Widowed	26	4.4	3.1, 10.9
EDUCATION COMPLETED			
8th grade or less	1	0	5.7
High School/GED	67	11.4	38.9*
Vocational	18	3.1	N/A
2 Year College	111	18.9	8.6
4 Year College/University	204	34.8	16.8
Graduate Program	186	31.7	9.2
HOUSEHOLD INCOME			
Under \$25,000	37	6.6	24.8
\$25,000-\$50,000	140	24.9	27.1
\$50,001-\$75,000	131	23.3	18.7
\$75,001-\$100,000	98	17.4	11.4
More than \$100,000	113	20.1	18
HOUSEHOLD CHILDREN UNDER 18			
0	434	73.6	N/A
1	74	12.5	N/A
2	58	9.8	N/A
3	17	2.9	N/A
4	5	1	N/A
5	2	0	N/A

### Table 27. Demographic characteristics of survey respondents as compared to the Florida population.

\* http://quickfacts.census.gov/qfd/states/12000.html. N/A, not available.

County	Frequency	Percent Survey	US Census	Percent Statewide	Difference
Alachua	Frequency	Respondents	population	Population	Difference
Baker	20	3.3	247,336	1.3	-2.0
Bay	0	0.0	27,115	0.1	0.1
Bradford	12	2.0	168,852	0.9	-1.1
Brevard	0	0.0	28,520	0.2	0.2
Broward	42	7.0	543,372	2.9	-4.1
Calhoun	12	2.0	1,748,066	9.3	7.3
Charlotte	1	0.2	14,625	0.1	-0.1
Citrus	4	0.7	159,978	0.9	0.2
	2	0.3	141,236	0.8	0.4
Clay Collier	5	0.8	190,865	1.0	0.2
	7	1.2	321,520	1.7	0.5
Columbia	3	0.5	67,532	0.4	-0.1
Dade	11	1.8	2,496,457	13.3	11.5
DeSoto	0	0.0	34,862	0.2	0.2
Dixie	0	0.0	16,422	0.1	0.1
Duval	11	1.8	864,263	4.6	2.8
Escambia	20	3.3	297,619	1.6	-1.7
Flagler	1	0.2	95,696	0.5	0.3
Franklin	2	0.3	11,549	0.1	-0.3
Gadsden	2	0.3	47,746	0.3	-0.1
Gilchrist	1	0.2	16,939	0.1	-0.1
Glades	0	0.0	12,884	0.1	0.1
Gulf	0	0.0	15,863	0.1	0.1
Hamilton	0	0.0	14,799	0.1	0.1
Hardee	4	0.7	27,731	0.1	-0.5
Hendry	0	0.0	39,140	0.2	0.2
Hernando	0	0.0	172,778	0.9	0.9
Highlands	0	0.0	98,786	0.5	0.5
Hillsbourough	19	3.2	1,229,226	6.5	3.4
Holmes	3	0.5	19,927	0.1	-0.4
Indian River	2	0.3	138,028	0.7	0.4
Jackson	1	0.2	49,746	0.3	0.1
Jefferson	3	0.5	14,761	0.1	-0.4
Lafayette	0	0.0	8,870	0.0	0.0
Lake	11	1.8	297,052	1.6	-0.2
Lee	14	2.3	618,754	3.3	1.0
Leon	19	3.2	275,487	1.5	-1.7
Levy	3	0.5	40,801	0.2	-0.3
Liberty	0	0.0	8,365	0.0	0.0
Madison	1	0.2	19,226	0.1	-0.1
Manatee	13	2.2	322,833	1.7	-0.4

Table 28. Please identify the primary county where you reside in Florida.

County	Frequency	Percent Survey US Census Respondents population		Percent Statewide Population	Difference
Marion	9	1.5	331,298	1.8	0.3
Martin	4	0.7	146,318	0.8	0.1
Monroe	6	1.0	73,090	0.4	-0.6
Nassau	1	0.2	73,314	0.4	0.2
Okaloosa	95	15.8	180,822	1.0	-14.8
Okeechobee	0	0.0	39,996	0.2	0.2
Orange	45	7.5	1,145,956	6.1	-1.4
Osceola	24	4.0	268,685	1.4	-2.6
Palm Beach	14	2.3	1,320,134	7.0	4.7
Pasco	20	3.3	464,697	2.5	-0.8
Pinellas	33	5.5	916,542	4.9	-0.6
Polk	6	1.0	602,095	3.2	2.2
Putnam	2	0.3	74,364	0.4	0.1
Santa Rosa	19	3.2	151,372	0.8	-2.3
Sarasota	6	1.0	379,448	2.0	1.0
Seminole	14	2.3	422,718	2.2	-0.1
St Johns	10	1.7	190,039	1.0	-0.6
St Lucie	1	0.2	277,789	1.5	1.3
Sumter	3	0.5	93,420	0.5	0.0
Suwannee	0	0.0	41,551	0.2	0.2
Taylor	2	0.3	22,568	0.1	-0.2
Volusia	15	2.5	494,597	2.6	0.1
Union	0	0.0	15,535	0.1	0.1
Wakulla	5	0.8	30,776	0.2	-0.7
Walton	18	3.0	55,043	0.3	-2.7
Washington	2	0.3	24,896	0.1	-0.2

### Table 29. How long have you lived in Florida?

	Less than 5 years	5-15 years	Longer than 15 years
Statewide	7	19	74
Northwest	7	18	75
Northeast	10	10	79
Central	7	16	77
South Central	8	28	64
South	3	17	79

### Table 30. What is your gender?

Male	Female
33	67
34	66
35	65
29	71
31	69
35	65
	33 34 35 29 31

### Table 31. What is your age group?

	18-24	25-34	35-44	45-54	55-64	65 and older
Statewide	2	12	15	22	30	18
Northwest	2	12	11	23	30	21
Northeast	8	12	16	8	29	27
Central	2	12	20	24	30	11
South Central	2	8	18	23	28	21
South	2	11	11	26	37	13

### Table 32. What is your race/ethnicity?

	African			Native		
	American	Caucasian	Hispanic	American	Asian	Multi-racial
Statewide	2	88	4	2	1	2
Northwest	3	88	2	5	1	3
Northeast	2	91	7	0	0	0
Central	1	86	8	2	1	2
South Central	0	90	5	1	2	2
South	2	86	10	0	2	0

### Table 33. Are you (options)?

		Single					
	Married	(never married)	Widowed	Separated			
Statewide	69	13	4	13			
Northwest	73	10	6	12			
Northeast	67	13	6	15			
Central	71	14	2	13			
South Central	62	18	6	14			
South	69	13	2	16			

### Table 34. How many children under the age of 18 currently live with you?

	0	1	2	3	4	5 or more
Statewide	74	13	10	3	1	0
Northwest	74	15	10	1	1	0
Northeast	78	4	16	0	2	0
Central	67	14	12	5	2	0
South Central	79	10	7	3	0	0
South	73	14	8	4	0	0

### Table 35. What is your household income?

	Under \$25,000	\$25000- \$50,000	\$50,001- \$75,000	\$75,001- \$100,000	More than \$100,000	Not Sure
Statewide	7	25	23	17	20	8
Northwest	5	24	22	21	22	7
Northeast	6	35	25	15	13	6
Central	8	17	28	18	17	7
South Central	9	26	19	19	19	7
South	6	23	24	8	29	11

### Table 36. What is your highest level of education completed?

	8 <sup>th</sup> Grade or less	High School/GED	2-year college	4-year college/ university	Graduate Program	Vocational
Statewide	0	11	19	35	32	3
Northwest	0	9	17	40	29	6
Northeast	0	10	24	22	37	6
Central	0	17	21	31	30	2
South Central	0	9	15	34	39	2
South	0	14	21	37	29	0



### Florida Sea Grant

PO Box 110409 Gainesville, FL 32611-0409 (352) 392-5870 www.flseagrant.org









