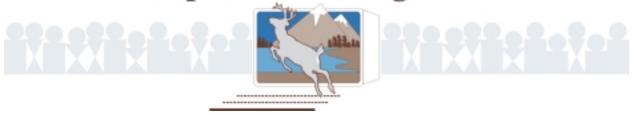
# **Responsive Management**



## CALIFORNIA RESIDENTS' OPINIONS ON AND ATTITUDES TOWARD COASTAL FISHERIES AND THEIR MANAGEMENT

Conducted for the Alliance of Communities for Sustainable Fisheries

by Responsive Management

## CALIFORNIA RESIDENTS' OPINIONS ON AND ATTITUDES TOWARD COASTAL FISHERIES AND THEIR MANAGEMENT

#### 2007

### **Responsive Management National Office**

Mark Damian Duda, Executive Director
Martin Jones, Research Associate
Andrea Criscione, Research Associate
Chad Craun, Research Associate
Tom Beppler, Research Associate
Tim Winegord, Survey Center Manager
Alison Lanier, Business Manager
Steven J. Bissell, Ph.D., Qualitative Research Associate
James B. Herrick, Ph.D., Research Associate

130 Franklin Street
Harrisonburg, VA 22801
Phone: 540/432-1888 Fax: 540/432-1892
E-mail: mark@responsivemanagement.com
www.responsivemanagement.com

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#### **EXECUTIVE SUMMARY**

#### INTRODUCTION AND METHODOLOGY

This study was conducted for the Alliance of Communities for Sustainable Fisheries (ACSF) to determine Californians' opinions on and attitudes toward commercial and recreational fishing in coastal areas of California, the ecological health of California's coastal fisheries and wildlife, and fisheries and wildlife management along the coast. The study entailed a telephone survey of California residents 18 years old and older.

For the survey, telephones were selected as the preferred sampling medium because of the universality of telephone ownership. The telephone survey questionnaire was developed cooperatively by Responsive Management and people associated with the ACSF. Responsive Management conducted a pre-test of the questionnaire, and revisions were made to the questionnaire based on the pre-test. Interviews were conducted Monday through Friday from 9:00 a.m. to 9:00 p.m., Saturday noon to 5:00 p.m., and Sunday from 5:00 p.m. to 9:00 p.m., local time. The survey was conducted in March 2007. Responsive Management obtained a total of 801 completed interviews. The software used for data collection was Questionnaire Programming Language 4.1.

The analysis of data was performed using Statistical Package for the Social Sciences software as well as proprietary software developed by Responsive Management. Throughout this report, findings of the telephone survey are reported at a 95% confidence interval. For the entire sample of California residents, the sampling error is at most plus or minus 3.46 percentage points.

#### PERCEPTION OF ISSUES FACING CALIFORNIA AND ITS ENVIRONMENT

The survey sought to determine Californians' concerns about the health of small family-run businesses versus the health of large corporations in California, as well as the level of concern for both of these relative to other issues facing California. The survey found that concern about small family-run businesses is much higher than concern about the health of large corporations. In the overall findings, concern about the health of small family-run businesses is just about equal to concern about highways and transportation. Overall, public education is the top concern.

- The survey asked respondents to rate six possible threats to California's marine waters, habitat, and fisheries. By far, water pollution in the ocean and coastal waters is perceived as the worst threat, with 72% of Californians saying it is a high threat. Nonetheless, corporate commercial fishing companies are also seen as a significant threat (29% rate them collectively as a high threat), second in the ranking of the six potential threats. In contrast, family-run commercial fishing boats (10% rate them as a high threat) and the sport of recreational fishing (5%) are not perceived as significant threats, being last in the ranking.
- ➤ California residents do not perceive the ecological health of California's natural resources positively. The mean ratings of ecological health (on a scale of 0 to 10, where 0 is not at all healthy and 10 is very healthy) of the various natural resources range from 4.78 for the ecological health of California's coastal fisheries (the last ranked) to 6.14 for the ecological health of California's forests (the top ranked). Perhaps more telling, no more than 12% gave any of the resources a rating 9 or 10 in health. Furthermore, for water and water-related resources (California's rivers and streams, its coastal fisheries, and its bays and estuaries), approximately a third of respondents rated the ecological health below the midpoint.

## PERCEPTION OF IMPORTANCE OF VARIOUS INDUSTRIES TO CALIFORNIA'S ECONOMY

The survey sought to gauge Californians' perceptions of the importance of various industries to California's economy. By far, agriculture and tourism are perceived as the most important (mean ratings of importance of 9.01 and 8.44, respectively). Commercial fishing is in the middle of the eight industries about which the survey asked.

# PERCEPTIONS OF ECOLOGICAL HEALTH OF FISHERIES AND MARINE WILDLIFE

- ➤ Nearly half of California residents (48%) say that they can name a type of fish or sea mammal off the coast of California that is depleted, threatened, or endangered. The most commonly named species are sea lion/seal, otter, whale, salmon, abalone, dolphin, tuna, and shark.
  - When asked what is causing the species to be depleted, threatened, or endangered, the most commonly named culprits are pollution and overfishing or overhunting.

- In a direct question about the health of California's wildlife, ratings are for the most part in the middle, with 48% giving a rating of 4 through 6 (on a scale of 0 to 10, with 0 being not healthy at all and 10 being very healthy). Only 5% give a rating of 9 or 10.
- ➤ The results regarding the health of California's sea mammals are similar to the results reported above regarding California's wildlife: the ratings of the health of California's sea mammals are generally in the middle, with the peak at the midpoint (5). Furthermore, 48% gave a middle rating from 4 to 6, and only 8% gave a rating of 9 or 10 regarding the health of California's sea mammals.
- Again, the results regarding the health of California's coastal fisheries are similar to the results reported above regarding California's wildlife and sea mammals: the ratings of the health of California's coastal fisheries, in general, are generally in the middle, with the peak at the midpoint (5). Furthermore, 41% gave a middle rating from 4 to 6, and only 4% gave a rating of 9 or 10 regarding the health of California's coastal fisheries.
- After asking respondents to name any types of fish that they could think of that are or were commercially fished in California's coastal waters, the survey asked them to indicate whether they think any of the types of fish they named are in trouble. Most commonly, respondents think that salmon, tuna, and abalone are in trouble.

## OPINIONS REGARDING UTILIZATION, HARVEST, AND MANAGEMENT OF FISHERIES

The survey asked respondents to rate the importance of six values regarding coastal fisheries, on a scale of 0 to 10, where 0 is not important at all and 10 is extremely important. The highest mean rating was ensuring that California properly manages its coastal waters and coastal fisheries (8.31), markedly higher than the rest. However, knowing that fishermen can harvest fish sustainably from coastal waters in California (mean of 7.44) and that people have the opportunity to recreationally fish in coastal waters of California (mean of 7.42) were relatively important. At the bottom of the ranking were knowing that family-run commercial fishing boats can harvest fish sustainably and knowing that family-run fishing boats (without

"commercial" in the term) can harvest fish sustainably (both with a mean of 6.93). Note, however, that even those at the bottom of the ranking have means above the midpoint.

- These questions also tested respondents' reaction to the term "commercial." This was done by asking two sets of paired questions (part of the sample received one question of each pair, another part of the sample received the other question). In the paired questions, one question included the term, "commercial," and the other question did not include "commercial." In general, there was not a markedly negative reaction to the term "commercial."
- The survey asked five questions related to what may harm the ocean, from fishing in general, to recreational fishing, to family-run commercial fishing boats, to large corporate commercial fishing companies, and even to personal consumer decisions. Looking at the results of the five questions together, large corporate commercial fishing companies are perceived most negatively, with 59% agreeing that those companies are harming the ocean's fisheries. No other question had more than 29% agreeing. The results are further discussed below:
  - In the most general question, 25% agree that fishing harms the ocean, but 65% disagree.
  - In the question allowing comparison between large corporate commercial fishing companies versus family-run commercial fishing boats, the large corporate commercial fishing companies (59% say they are harming the ocean's fisheries) fare poorly relative to family-run commercial fishing boats (29% say they are harming the ocean's fisheries).
  - Even consumers are perceived as harming the ocean's fisheries by some: 27% agree that people who consume frozen, packaged seafood from large supermarket chains are harming the ocean's fisheries.
  - Recreational fishing is not perceived negatively: only 16% agree that people who fish recreationally in California are harming the ocean's fisheries.
- Four questions explore opinions regarding possible causes of fishing declines and possible bans on (or reductions of) fishing. When overfishing is identified as a reason for declining fish populations, a large majority of Californians agree (72%) that commercial and recreational fishing should be banned. However, if the reason for the decline is undetermined or is shown to be caused by something other than fishing, agreement on a ban

is much lower (52% and 58% agree, respectively). However, these latter results show that, even if fishing is not a problem but fisheries are declining, Californians show deference to the fisheries over commercial and recreational fishing. A final result of these questions demonstrates Californians moderate opinions: the most agreement, if fisheries are declining, is for a *reduction* in fisheries harvest rather than an outright ban.

- Another set of four questions explores opinions on harvesting California's coastal fisheries. Again, there is a split in opinions regarding the protection versus utilization dichotomy, but there is much concern about commercial fishermen's livelihoods, particularly family-run fishing boats.
  - In one question, deference is again shown for family-run commercial fishing boats over corporate commercial fishing companies: 52% agree that if scientific evidence shows that fish populations are declining, only corporate commercial fishing companies should be banned from fishing in California's coastal waters, but family-run commercial fishing boats should be allowed; disagreement for this is 36%.
  - One question shows the split in opinion on commercial fishing: 50% agree that if scientific evidence shows that fish populations are declining, commercial fishing should be banned, but recreational fishing is okay; 40% disagree.
  - When discussion of banning commercial fishing if scientific evidence shows that fish populations are declining includes the caveat that "even if it means that commercial fishermen's livelihood will be ended," more disagree (45%) than agree (39%).
  - The least agreement is for a complete ban of fishing, both commercial and recreational, if scientific evidence shows that fish populations are declining: only 32% agree, but 59% disagree.
- ➤ Californians show concern both for having their seafood harvested sustainably as well as for ensuring that California's seafood industry not be unduly harmed. The survey asked seafood consumers (those who typically eat seafood at least once a month) five questions about their opinions on the harvesting of seafood. Overwhelming majorities agree that it matters to them that local seafood is harvested sustainably (86% agree) and that imported seafood is harvested sustainably (79% agree). They also overwhelmingly agree (82%) that they would

buy California seafood over imported seafood when informed that California currently has more conservation safeguards in place than exist in most other countries. However, seafood consumers show concern about California's fishing industry, with less than a majority agreeing that they would be willing to buy their seafood only from international markets to put the highest priority on protecting California's fisheries (37%), and even less than that saying that they would be willing to buy their seafood from non-California sources if they knew that doing so would likely force many family-run commercial fishermen out of business in California (23%). Regarding this last question, 63% disagree that they would be willing to buy their seafood from non-California sources if they knew that doing so would likely force many family-run commercial fishermen out of business in California.

- In a question directly about use or protection of California's coastal fisheries, Californians are in the middle: they favored the moderate answers ("utilized with just a few limitations" and "mostly protected with just a little utilization") over the extreme answers ("fully utilized with almost no limitations" and "fully protected with almost no utilization"). Furthermore, the two moderate answers are supported by nearly equal percentages. Overall, this question shows an almost even split between utilization and protection.
- Another question, like the one discussed above, asks about opinions on use versus protection of California's coastal fisheries. There is much more support (by more than 2 to 1) for allowing fishing in all areas, with science-based limits on the total harvest (68% support this position) over fully protecting (i.e., prohibiting *all* harvesting in) some areas with the concomitant result that fishermen would concentrate their fishing in remaining open areas (24%). In simple terms, Californians support *harvest limitations* over *complete harvest bans*.
- More Californians oppose (38%) than support (27%) adding additional fishing restrictions to California coastal waters if it means that family-run commercial fishing boats may go out of business. As a demonstration of the difficulty in making this choice, nearly a third answered this question with "don't know" (29%).

Finally, the survey sought to determine exactly how Californians perceive the term, "protect," as in "We should protect the ocean." In this regard, they are, again, moderate in their opinions: they overwhelmingly (87%) perceive "protect" to mean that the resources can be used in a sustainable way rather than not used at all (8%).

#### FISHERIES AND TOURISM

- Working waterfronts are important for tourism in coastal towns, as a large majority of Californians (71%) agree that they seek out and enjoy going to working waterfronts in communities that have them; only 7% disagree.
- ➤ In another question that pertains to tourism, an overwhelming majority of Californians (84%) agree that the State of California and local governments should work to keep charter boat opportunities available to the public, given that charter boat businesses provide opportunities to people who otherwise would not be able to boat because they cannot afford a boat of their own.

#### CONCERNS REGARDING COMMERCIAL FISHING IN CALIFORNIA

- The survey asked Californians what exactly they think of when the term, "commercial fishing," is applied to California, and family-run commercial fishing boats are *not* primarily on their mind, as 59% think primarily of large foreign factory ships or large U.S. corporations; only 28% think primarily of small family-run fishing boats.
- The survey asked Californians directly to rate the importance of commercial fishing to California's economy, and they think it is important: a large majority (60%) rated it above the midpoint, and 79% rated it at the midpoint or higher; only 17% rated it less than the midpoint.
- ➤ Californians do not perceive that fishing itself harms the ocean: in answer to a basic question, two-thirds of Californians (66%) disagree that fishing harms the ocean, and only 25% agree. However, when asked about large corporate commercial fishing companies, the

perception is more negative: 58% agree that large corporate commercial fishing companies are harming the ocean's fisheries.

- ➤ A large majority of Californians (73%) perceive corporate commercial fishing companies as being a high or moderate threat to California's marine waters, habitat, and fisheries; conversely, only 5% say that they are not a threat at all, and 10% say that they are only a low threat. Family-run commercial fishing boats are not perceived as being as great a threat, with opinion evenly split: 44% see them as a high or moderate threat to California's marine waters, habitat, and fisheries, and 44% see them as only a low threat or not a threat at all.
- Disagreement (59%) far exceeds agreement (32%) for a complete ban of fishing, both commercial and recreational, if scientific evidence shows that fish populations are declining. However, agreement is higher if recreational fishing is allowed while commercial fishing is still banned, if scientific evidence shows that fish populations are declining: 50% agree and 40% disagree. Finally, when a ban of commercial fishing is discussed with the caveat that commercial fishermen's livelihood will be ended, agreement erodes: only 39% agree, while 45% disagree. In short, Californians, in general, do not favor a complete ban, and they are concerned about commercial fishermen's livelihood, although substantial percentages, nonetheless, support a ban if scientific evidence shows that fish populations are declining.
- There is much more support (by more than 2 to 1) for allowing fishing in all areas, with science-based limits on the total harvest (68% support this position) over fully protecting (i.e., prohibiting *all* harvesting in) some areas with the concomitant result that fishermen would concentrate their fishing in remaining open areas (24%). In simple terms, Californians support *harvest limitations* over *complete harvest bans*.
- When presented with the scenario where fish stocks are stable or already recovering, there is little support for a ban, as only 24% agree that commercial fishing should still be banned if scientific evidence shows that fish stocks are stable or already recovering (66% disagree). Slightly higher agreement (37%) is found when it is suggested that commercial fishing be

banned while allowing recreational fishing, if scientific evidence shows that fish stocks are stable or already recovering (53% disagree).

- When asked to name commercially fished species off the coast of California, respondents most commonly named salmon (34%), tuna (28%), halibut (16%), and bass (13%). Note that 40% could not name a species. In a follow-up question asking if any of the named species are in trouble, salmon, tuna, and abalone are most commonly named.
- ➤ Of the 801 respondents to the survey, 6 respondents (0.75%) personally work in the commercial or recreational fishing industry or a closely related field. Additionally, 1.75% have family who work in the commercial or recreational fishing industry or a closely related field. Finally, 5.5% have one or more friends who work in the commercial or recreational fishing industry or a closely related field.

#### CONCERNS REGARDING RECREATIONAL FISHING IN CALIFORNIA

- The survey asked Californians to rate the importance of recreational fishing to California's economy, and they think it is somewhat important: just barely a majority (52%) rated it above the midpoint, and 69% rated it at the midpoint or higher. However, a quarter (25%) rated it less than the midpoint in importance.
- ➤ A substantial percentage of California residents (15%) consider themselves to be recreational saltwater anglers.
- Recreational fishing is not perceived as a great threat to California's marine waters, habitat, and fisheries: only 5% rate it as a high threat, while 66% say it is a low threat or not a threat at all. Furthermore, 76% disagree that people who recreationally fish in California are harming the ocean's fisheries (only 16% agree). On the other hand, the opportunity to be able to recreationally fish is perceived as important (even if the respondent does not personally fish himself or herself): an overwhelming majority (88%) rate ensuring that the opportunity exists at the midpoint or higher in the rating scale, and 29% rate it 10.

- ➤ Disagreement (59%) far exceeds agreement (32%) for a complete ban of fishing, both commercial and recreational, if scientific evidence shows that fish populations are declining. However, agreement is higher if recreational fishing is allowed while commercial fishing is still banned, if scientific evidence shows that fish populations are declining: 50% agree and 40% disagree.
- An overwhelming majority of Californians (84%) agree that the State of California and local governments should work to keep charter boat opportunities available to the public, given that charter boat businesses provide opportunities to people who otherwise would not be able to boat because they cannot afford a boat of their own.

#### CONCERNS REGARDING FAMILY-RUN BUSINESSES IN CALIFORNIA

- Californians express much concern about the health of small family-run businesses: a quarter rate their concern about this at 10 (on a 0 to 10 scale), and the overwhelming majority (87%) rate their concern at the midpoint or higher. Compare this to their ratings of concern about large corporations in California: only 14% rate their concern about large corporations at 10, and 67% rate their concern at the midpoint or higher.
- ➤ Californians indicate a desire that family-run fishing boats can work and harvest fish sustainably in California. When asked how important it is to them that they know that family-run fishing boats can harvest fish sustainably in California, 80% to 84% give a rating at the midpoint or higher (note that one question asked part of the sample about family-run commercial fishing boats and the other asked a different part of the sample about family-run fishing boats without the term "commercial," and there was no marked difference in the two results).
- ➤ Californians indicate that they care that family-run commercial fishing boats operate in California's waters. Only 23% of seafood consumers (those who consume seafood at least once a month) agree that they would be willing to forgo buying California seafood knowing that doing so would drive family-run commercial fishing boats in California out of business; 63% disagree.

- More Californians oppose (38%) than support (27%) adding additional fishing restrictions to California coastal waters if it means that family-run commercial fishing boats may go out of business. As a demonstration of the difficulty in making this choice, nearly a third answered this question with "don't know" (29%).
- When asked directly whether family-run commercial fishing boats are harming the ocean's fisheries, the majority of Californians (55%) disagree, while 29% agree.
- Finally, the survey asked Californians what exactly they think of when the term, "commercial fishing," is applied to California, and family-run commercial fishing boats are not primarily on their mind, as 59% think primarily of large foreign factory ships or large U.S. corporations, and only 28% think primarily of small family-run fishing boats.

# OPINIONS ON FISH CONSUMPTION AND ITS EFFECTS ON CALIFORNIA'S COASTAL FISHERIES

> Californians show concern both for having their seafood harvested sustainably as well as for ensuring that California's seafood industry not be unduly harmed. The survey asked seafood consumers (those who typically eat seafood at least once a month) five questions about their opinions on harvesting of seafood. Overwhelming majorities agree that it matters to them that local seafood is harvested sustainably (86% agree) and that imported seafood is harvested sustainably (79% agree). They also overwhelmingly agree (82%) that they would buy California seafood over imported seafood when informed that California currently has more conservation safeguards in place than exist in most other countries. Seafood consumers show concern about California's fishing industry, with less than a majority agreeing that they would be willing to buy their seafood only from international markets to put the highest priority on protecting California's fisheries (37%), and even less than that saying that they would be willing to buy their seafood from non-California sources if they knew that doing so would likely force many family-run commercial fishermen out of business in California (23%). Regarding this last question, 63% disagree that they would be willing to buy their seafood from non-California sources if they knew that doing so would likely force many family-run commercial fishermen out of business in California.

- ➤ Interestingly, while the majority of seafood consumers in California agree that large corporate commercial fishing companies in California are harming the ocean's fisheries (59%), less than half that amount agree that people who consume frozen, packaged seafood from large supermarket chains are harming the ocean's fisheries (27%).
- The overwhelming majority of Californians (91%) are not vegetarian, while 5% are vegetarian but not vegan, and 3% are vegan. Those who are not vegan were asked how often they purchase seafood, with the large majority of them (57% of non-vegans) consuming seafood at least once a week. Interestingly, in a follow-up question, half of those who consume seafood do not know if any of the seafood they consume is harvested in California's waters; 38% indicated that some of the seafood is harvested in California's waters.
- ➤ When asked to name commercially fished species off the coast of California, respondents most commonly named salmon (34%), tuna (28%), halibut (16%), and bass (13%). Note that 40% could not name a species. In a follow-up question asking if any of the named species is in trouble, salmon, tuna, and abalone are most commonly named.

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#### INTRODUCTION AND METHODOLOGY

This study was conducted for the Alliance of Communities for Sustainable Fisheries (ACSF) to determine Californians' opinions on and attitudes toward commercial and recreational fishing in coastal areas of California, the ecological health of California's coastal fisheries and wildlife, and fisheries and wildlife management along the coast. The study entailed a telephone survey of California residents 18 years old and older. Specific aspects of the research methodology are discussed below.

For the survey, telephones were selected as the preferred sampling medium because of the universality of telephone ownership. In addition, a central polling site at the Responsive Management office allowed for rigorous quality control over the interviews and data collection. Responsive Management maintains its own in-house telephone interviewing facilities. These facilities are staffed by interviewers with experience conducting computer-assisted telephone interviews on the subjects of natural resources and outdoor recreation. The telephone survey questionnaire was developed cooperatively by Responsive Management and people associated with the ACSF. Responsive Management conducted a pre-test of the questionnaire, and revisions were made to the questionnaire based on the pre-test.

To ensure the integrity of the telephone survey data, Responsive Management has interviewers who have been trained according to the standards established by the Council of American Survey Research Organizations. Methods of instruction included lecture and role-playing. The Survey Center Managers and other professional staff conducted project briefings with the interviewers prior to the administration of this survey. Interviewers were instructed on type of study, study goals and objectives, handling of survey questions, interview length, termination points and qualifiers for participation, interviewer instructions within the survey instrument, reading of the survey instrument, skip patterns, and probing and clarifying techniques necessary for specific questions on the survey instrument. The Survey Center Managers and statisticians monitored the data collection, including monitoring of the actual telephone interviews without the interviewers' knowledge, to evaluate the performance of each interviewer and ensure the integrity of the data. After the surveys were obtained by the interviewers, the Survey Center Managers and/or statisticians edited each completed survey to ensure clarity and completeness.

Interviews were conducted Monday through Friday from 9:00 a.m. to 9:00 p.m., Saturday noon to 5:00 p.m., and Sunday from 5:00 p.m. to 9:00 p.m., local time. A five-callback design was used to maintain the representativeness of the sample, to avoid bias toward people easy to reach by telephone, and to provide an equal opportunity for all to participate. When a respondent could not be reached on the first call, subsequent calls were placed on different days of the week and at different times of the day. The survey was conducted in March 2007. Responsive Management obtained a total of 801 completed interviews.

The software used for data collection was Questionnaire Programming Language 4.1 (QPL). The survey data were entered into the computer as each interview was being conducted, eliminating manual data entry after the completion of the survey and the concomitant data entry errors that may occur with manual data entry. The survey instrument was programmed so that QPL branched, coded, and substituted phrases in the survey based on previous responses to ensure the integrity and consistency of the data collection. The analysis of data was performed using Statistical Package for the Social Sciences software as well as proprietary software developed by Responsive Management.

Throughout this report, findings of the telephone survey are reported at a 95% confidence interval. For the entire sample of California residents 18 years old and older, the sampling error is at most plus or minus 3.46 percentage points. This means that if the survey were conducted 100 times on different samples that were selected in the same way, the findings of 95 out of the 100 surveys would fall within plus or minus 3.46 percentage points of each other. Sampling error was calculated using the formula described on the following page, with a sample size of 801 and a population size of 25,623,626 California residents 18 years old and older.

#### **Sampling error equation:**

$$B = \left(\sqrt{\frac{\frac{N_p(.25)}{N_s} - .25}{N_p - 1}}\right) (1.96)$$
Where: B = maximum sampling error (as decimal)
$$N_P = \text{population size (I.e., total number who could be surveyed)}$$

$$N_S = \text{sample size (I.e., total number of respondents surveyed)}$$

Derived from formula: p. 206 in Dillman, D. A. 2000. Mail and Internet Surveys. John Wiley & Sons, NY.

**Note**: This is a simplified version of the formula that calculates the <u>maximum</u> sampling error using a 50:50 split (the most conservative calculation because a 50:50 split would give maximum variation).

Note that some results may not sum to exactly 100% because of rounding. Additionally, rounding on the graphs may cause apparent discrepancies of 1 percentage point between the graphs and the reported results of combined responses (e.g., when "strongly support" and "moderately support" are summed to determine the total percentage in support).

A note about the layout of the report: some graphs pertain to more than one section, so these graphs are discussed in more than one section of the report. In addition, some of these graphs are shown in multiple sections of the report to facilitate readability. In other instances, a graph may be discussed in more than one section, but the graph is only shown in one section, with a call-out in the other section indicating where the graph is located.

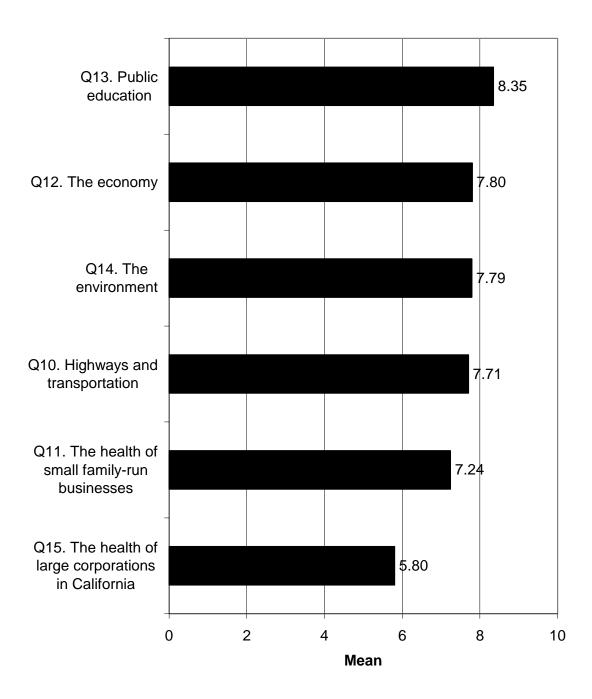
# PERCEPTION OF ISSUES FACING CALIFORNIA AND ITS ENVIRONMENT

- The survey sought to determine Californians' concerns about the health of small family-run businesses versus the health of large corporations in California, as well as the level of concern for both of these relative to other issues facing California. The survey found that concern about small family-run businesses is much higher than concern about the health of large corporations. In the overall findings, concern about the health of small family-run businesses is just about equal to concern about highways and transportation. Overall, public education is the top concern.
  - The mean rating of concern (on a scale of 0 to 10, where 0 is not at all concerned and 10 is extremely concerned) for the health of small family-run businesses is 7.24, compared to a mean of 5.80 for large corporations in California. (Public education had a mean of 8.35.) While 25% rated their concern about the health of small family-run businesses at a 10, only 14% gave a similar rating for their concern about the health of large corporations in California. (At the top, 47% rated their concern about public education as a 10.)
- The survey asked respondents to rate six possible threats to California's marine waters, habitat, and fisheries. By far, water pollution in the ocean and coastal waters is perceived as the worst threat, with 72% of Californians saying it is a high threat. Nonetheless, corporate commercial fishing companies are also seen as a significant threat (29% rate them collectively as a high threat), second in the ranking of the six potential threats. In contrast, family-run commercial fishing boats (10% rate them as a high threat) and the sport of recreational fishing (5%) are not perceived as significant threats, being last in the ranking.
- ➤ California residents do not perceive the ecological health of California's natural resources positively. The mean ratings of ecological health (on a scale of 0 to 10, where 0 is not at all healthy and 10 is very healthy) of the various natural resources range from 4.78 for the ecological health of California's coastal fisheries (the last ranked) to 6.14 for the ecological health of California's forests (the top ranked). Perhaps more telling, no more than 12% gave any of the resources a rating 9 or 10 in health. Furthermore, for water and water-related

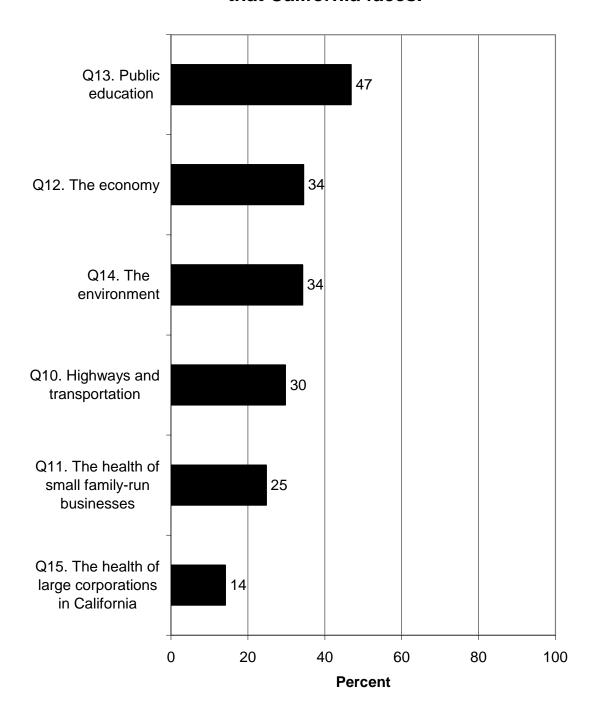
resources (California's rivers and streams, its coastal fisheries, and its bays and estuaries), approximately a third of respondents rated the ecological health below the midpoint.

• In the ranking of these six resources, California's forests are perceived as the most healthy, and its coastal fisheries are perceived as the most unhealthy (however, note that all ratings are fairly close to each other).

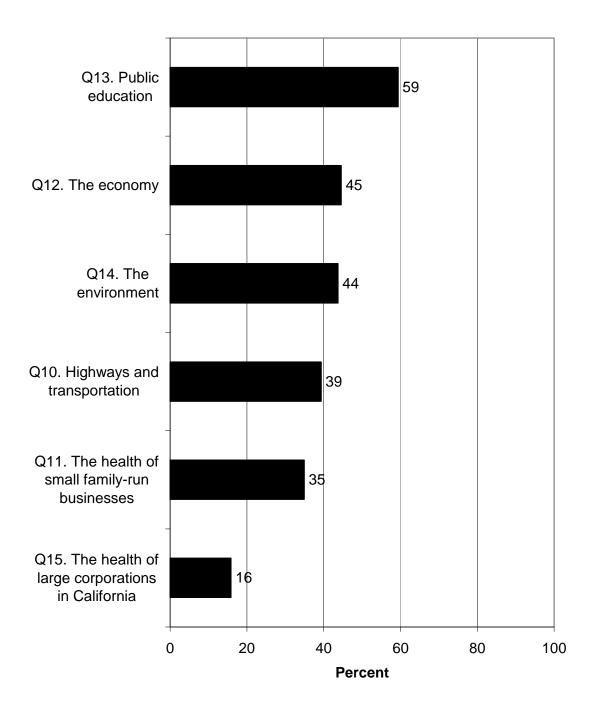
Q10-15. Mean ratings regarding their concern about each of the following issues that California faces. (Don't know responses removed.)



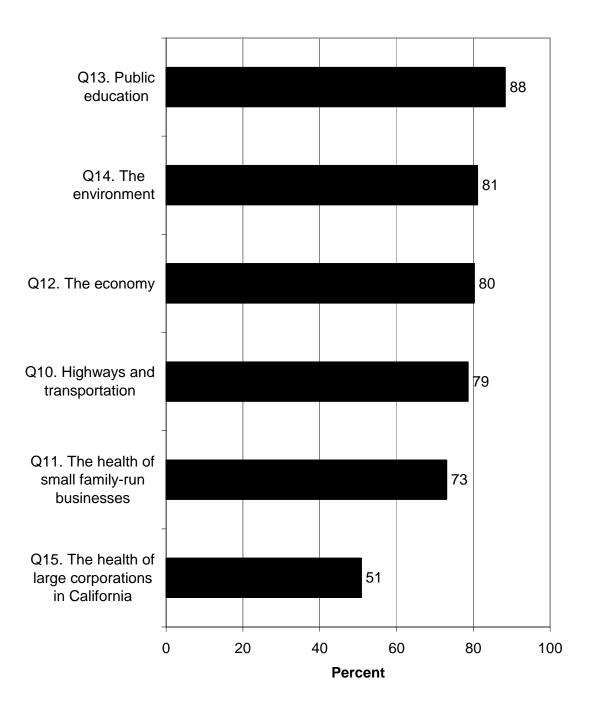
Q10-15. Percent giving a rating of 10 regarding their concern about each of the following issues that California faces.



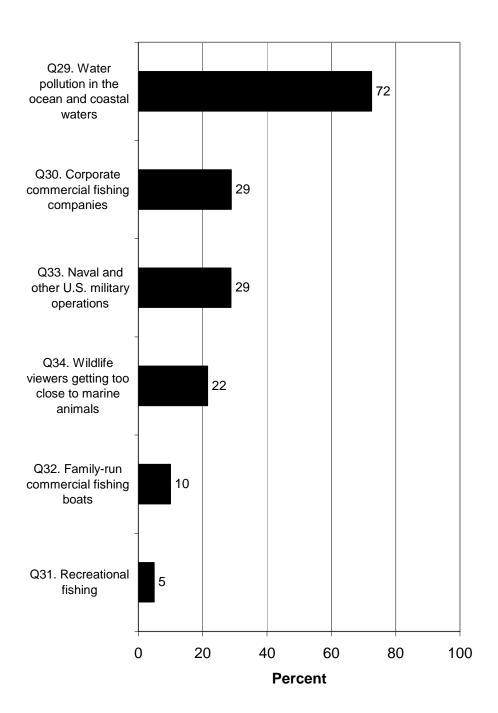
Q10-15. Percent giving a rating of 9 or 10 regarding their concern about each of the following issues that California faces.



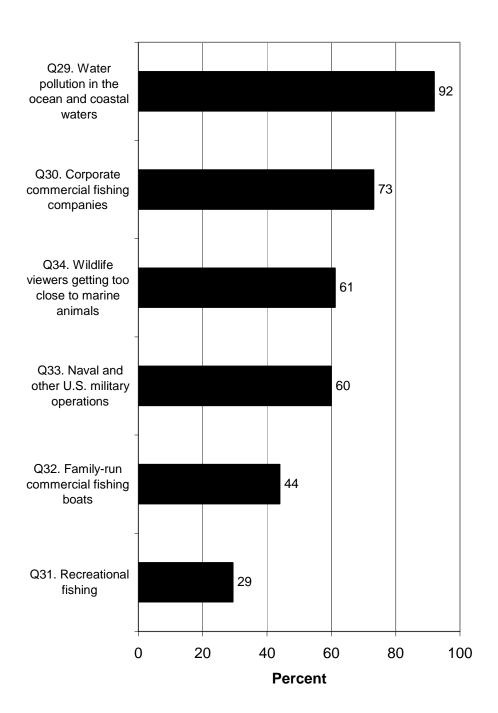
Q10-15. Percent giving a rating of greater than the midpoint (5) regarding their concern about each of the following issues that California faces.



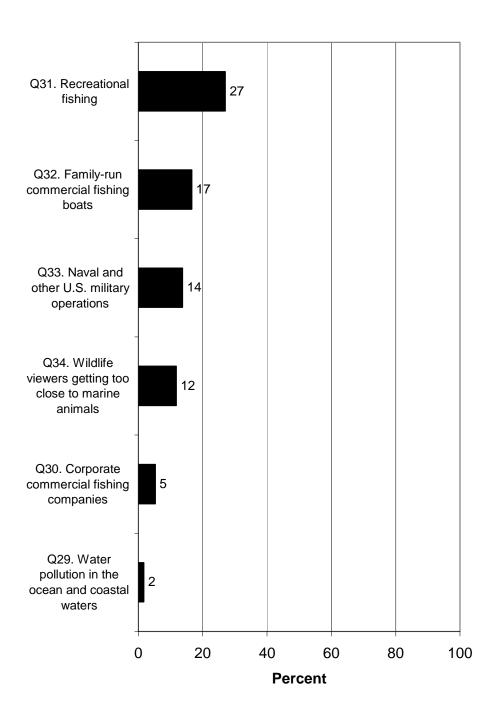
Q29-34. Percent saying that each of the following is a high threat to California's marine waters, habitat, and fisheries.



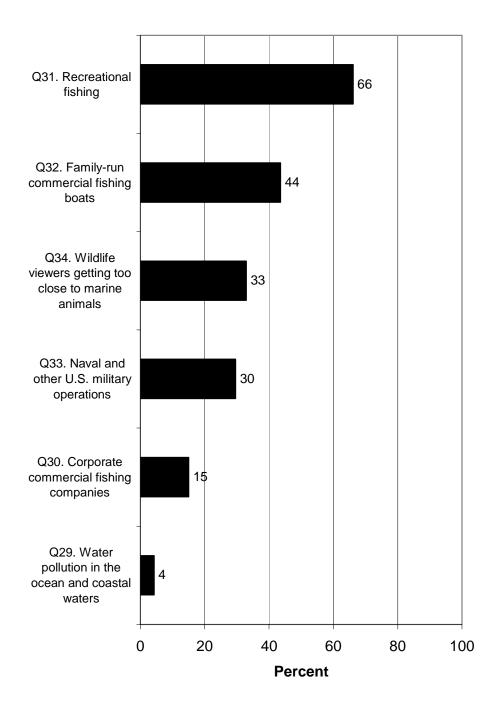
Q29-34. Percent saying that each of the following is a high or moderate threat to California's marine waters, habitat, and fisheries.



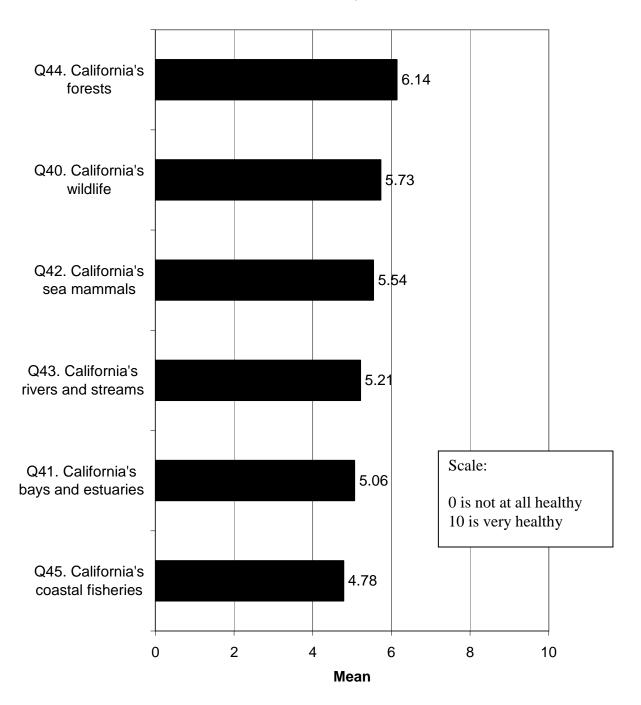
Q29-34. Percent saying that each of the following is not a threat at all to California's marine waters, habitat, and fisheries.



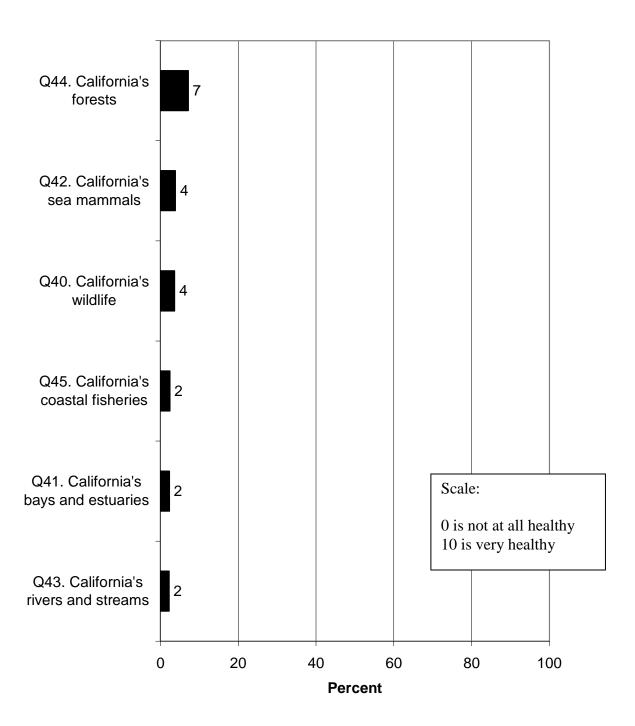
Q29-34. Percent saying that each of the following is a low threat or not a threat at all to California's marine waters, habitat, and fisheries.



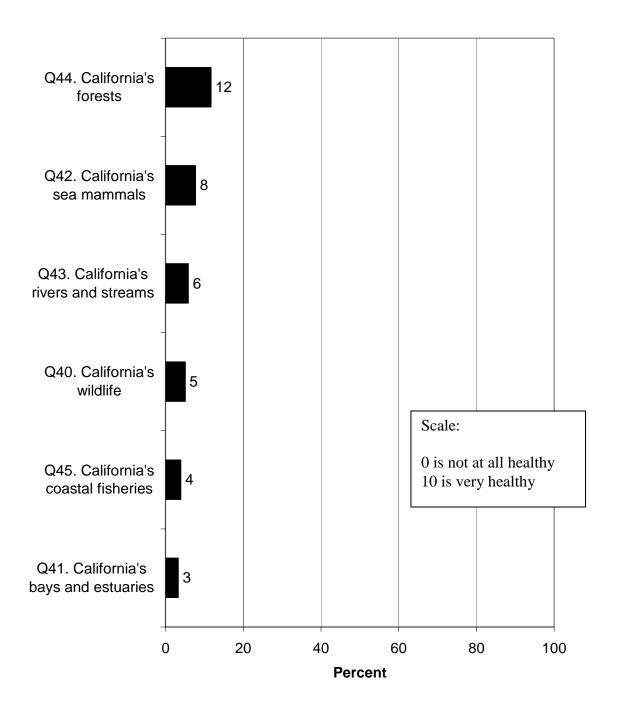
Q40-45. Mean ratings of the ecological health of each of the following. (Don't know responses removed.)



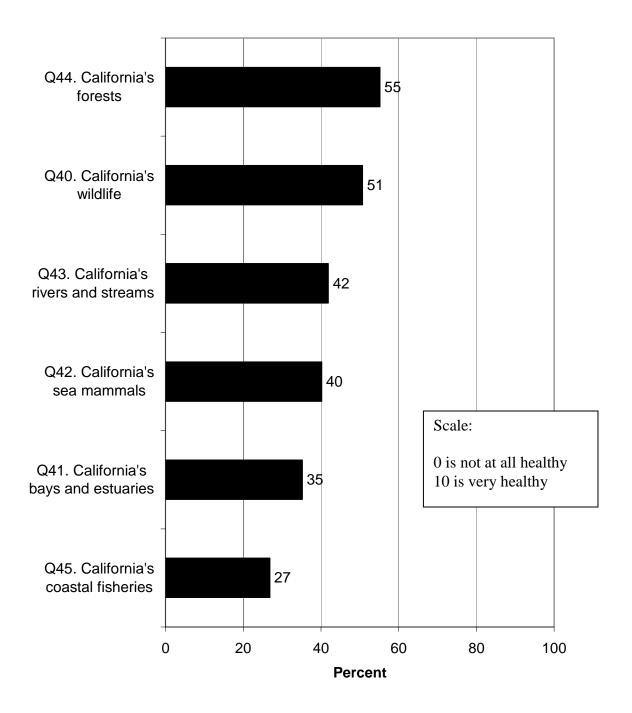
Q40-45. Percent rating the ecological health of each of the following as a 10.



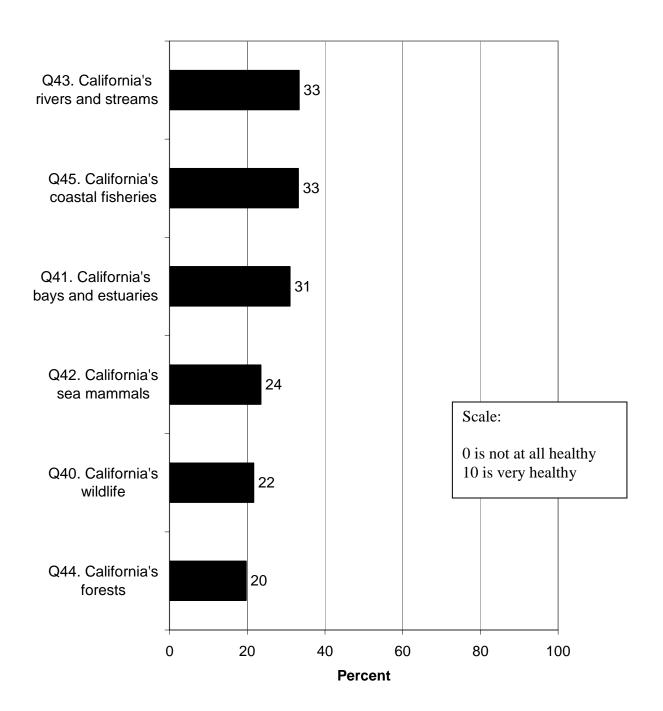
Q40-45. Percent rating the ecological health of each of the following as a 9 or 10.



Q40-45. Percent rating the ecological health of each of the following as greater than the midpoint (5).



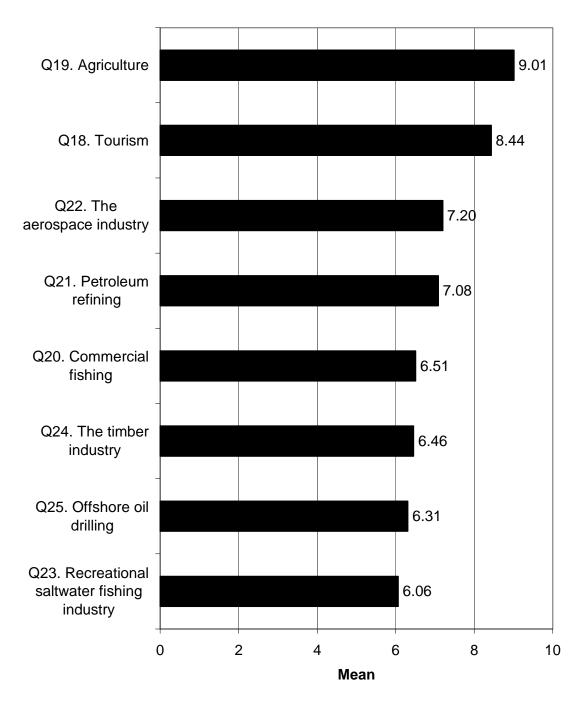
Q40-45. Percent rating the ecological health of each of the following as less than the midpoint (5).



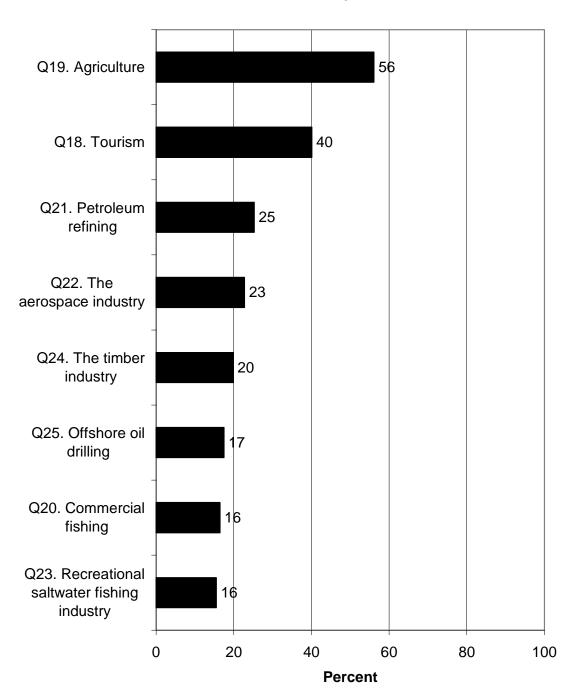
# PERCEPTION OF IMPORTANCE OF VARIOUS INDUSTRIES TO CALIFORNIA'S ECONOMY

The survey sought to gauge Californians' perceptions of the importance of various industries to California's economy. By far, agriculture and tourism are perceived as the most important (mean ratings of importance of 9.01 and 8.44, respectively). Commercial fishing is in the middle of the eight industries about which the survey asked (mean of 6.51), below the aforementioned top two as well as the aerospace industry and petroleum refining, but above the timber industry, offshore oil drilling, and the recreational saltwater fishing industry.

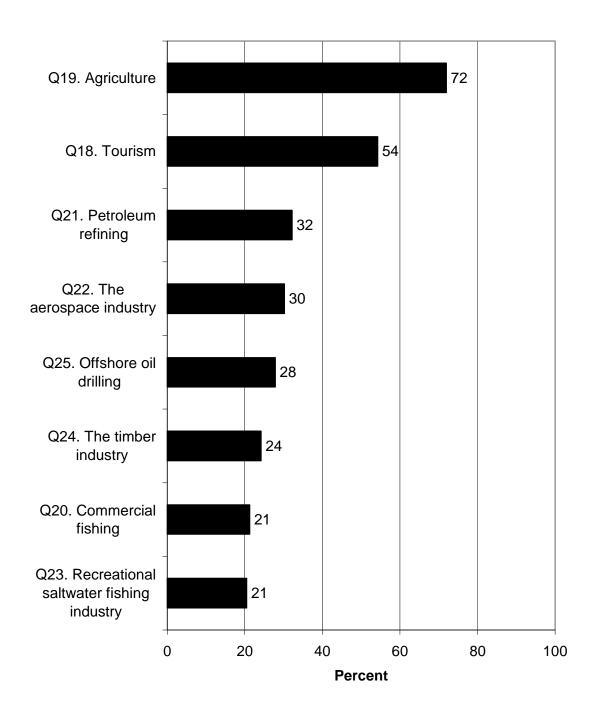
Q18-25. Mean ratings of importance of the following industries for California's economy. (Don't know responses removed.)



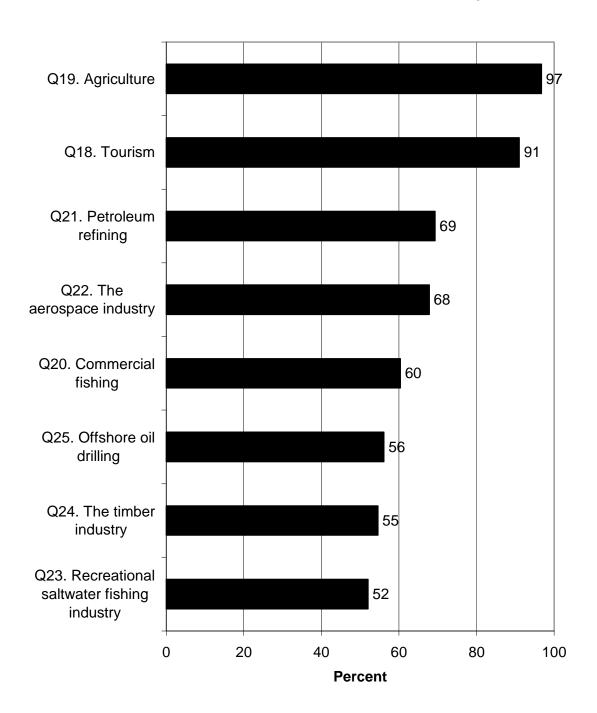
Q18-25. Percent giving a rating of 10 in importance of the following industries for California's economy.



Q18-25. Percent giving a rating of 9 or 10 in importance of the following industries for California's economy.



Q18-25. Percent giving a rating of greater than the midpoint (5) in importance of the following industries for California's economy.



#### OPINIONS ON CALIFORNIA'S COASTAL FISHERIES AND MARINE WILDLIFE

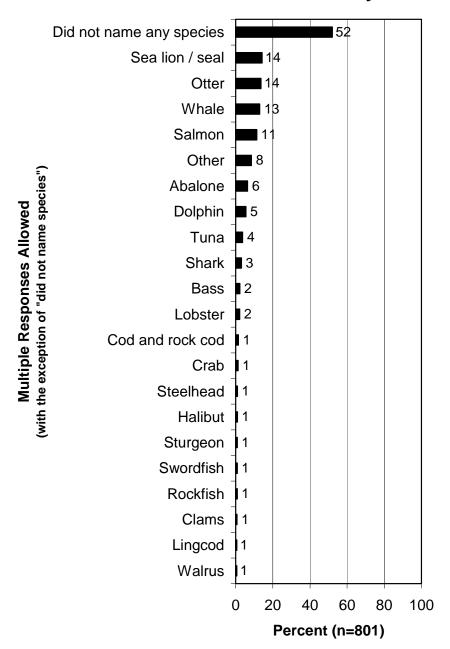
#### PERCEPTIONS OF ECOLOGICAL HEALTH OF FISHERIES AND MARINE WILDLIFE

- Nearly half of California residents (48%) say that they can name a type of fish or sea mammal off the coast of California that is depleted, threatened, or endangered (note that some of these 48% named species that may not be depleted, threatened, or endangered, with a few naming species that do not exist in California, such as penguin or walrus; also note that "depleted, threatened, or endangered" was subjective, as the survey instructed interviewers to say, if the respondent asked about the definitions, "that you, personally feel are depleted, threatened, or endangered, regardless of any possible federal or state listing"). The most commonly named species are sea lion/seal, otter, whale, salmon, abalone, dolphin, tuna, and shark (all named by 3% or more).
  - When asked what is causing the species to be depleted, threatened, or endangered, the most commonly named culprits are pollution (25% of all respondents gave this answer) and overfishing or overhunting (19%). (Note that among those who named a species, 53% said pollution was causing the problem, and 41% said overfishing or overhunting.)
- In a direct question about the health of California's wildlife, ratings are for the most part in the middle, with 48% giving a rating of 4 through 6 (on a scale of 0 to 10, with 0 being not healthy at all and 10 being very healthy). Only 5% give a rating of 9 or 10.
- ➤ The results regarding the health of California's sea mammals are similar to the results reported above regarding California's wildlife: the ratings of the health of California's sea mammals are generally in the middle, with the peak at the midpoint (5). Furthermore, 48% gave a middle rating from 4 to 6, and only 8% gave a rating of 9 or 10 regarding the health of California's sea mammals.
- Again, the results regarding the health of California's coastal fisheries are similar to the results reported above regarding California's wildlife and sea mammals: the ratings of the health of California's coastal fisheries, in general, are generally in the middle, with the peak

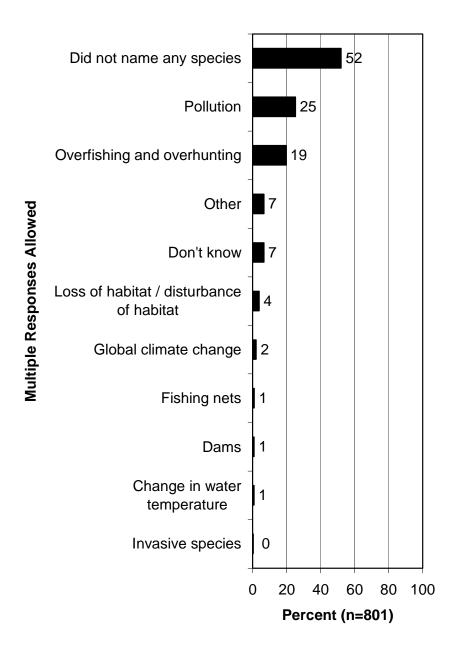
at the midpoint (5). Furthermore, 41% gave a middle rating from 4 to 6, and only 4% gave a rating of 9 or 10 regarding the health of California's coastal fisheries (the 4% does not appear to match the graph because of rounding).

After asking respondents to name any types of fish that they could think of that are or were commercially fished in California's coastal waters, the survey asked them to indicate whether they think any of the types of fish they named are in trouble. Most commonly, respondents think that salmon, tuna, and abalone are in trouble. (This graph is shown in the section of this report titled, "Concerns Regarding Commercial Fishing in California.")

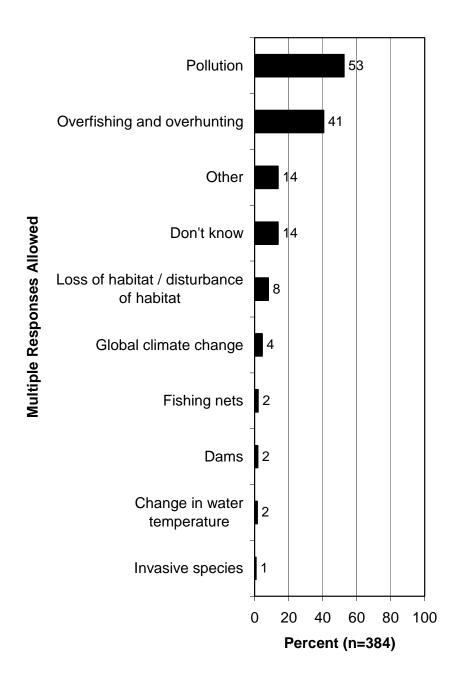
Q35. Can you name any types of fish or sea mammals off the coast of California that are depleted, threatened, or endangered? Q36. If yes, what are they?



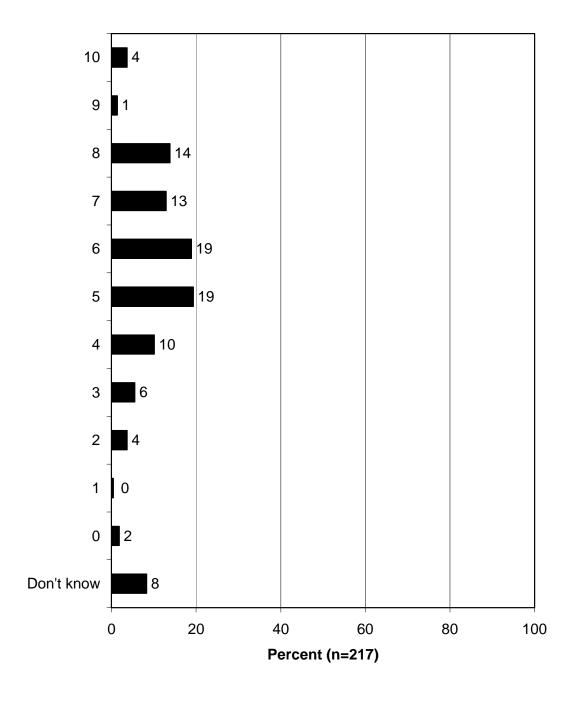
(Follow-up to Q35. Can you name any types of fish or sea mammals off the coast of California that are depleted, threatened, or endangered? and Q36. If Yes, what are they?) Q37. What is causing them to be depleted, threatened, or endangered?



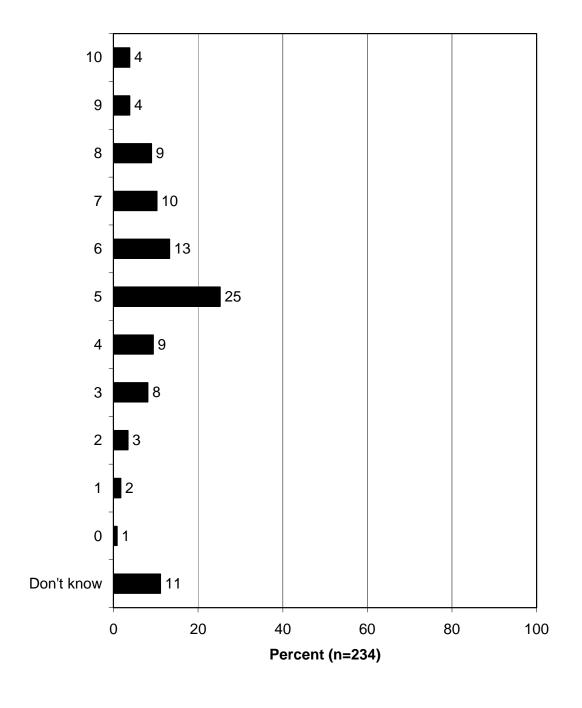
Q37. What is causing them to be depleted, threatened, or endangered? (The types of fish or sea mammals you named off the coast of California that are depleted, threatened, or endangered.)



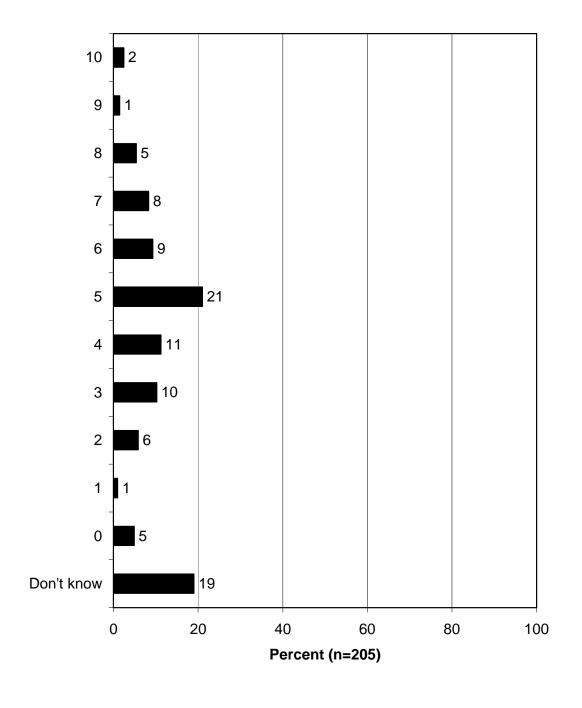
Q40. What about California's wildlife? (How healthy is this, on a scale of 0 to 10, where 0 is not healthy at all, and 10 is very healthy?)



Q42. What about California's sea mammals? (How healthy are these, on a scale of 0 to 10, where 0 is not healthy at all, and 10 is very healthy?)



Q45. What about California's coastal fisheries? (How healthy are these, on a scale of 0 to 10, where 0 is not healthy at all, and 10 is very healthy?)



#### OPINIONS REGARDING UTILIZATION, HARVEST, AND MANAGEMENT OF FISHERIES

- The survey asked respondents to rate the importance of six values regarding coastal fisheries, on a scale of 0 to 10, where 0 is not important at all and 10 is extremely important. The highest mean rating was ensuring that California properly manages its coastal waters and coastal fisheries (8.31), markedly higher than the rest. However, knowing that fishermen can harvest fish sustainably from coastal waters in California (mean of 7.44) and that people have the opportunity to recreationally fish in coastal waters of California (mean of 7.42) were relatively important. At the bottom of the ranking were knowing that family-run commercial fishing boats can harvest fish sustainably and knowing that family-run fishing boats (without "commercial" in the term) can harvest fish sustainably (both with a mean of 6.93). Note, however, that even those at the bottom of the ranking have means above the midpoint.
  - These questions also tested respondents' reaction to the term "commercial." This was done by asking two sets of paired questions (part of the sample received one question of each pair, another part of the sample received the other question). In the paired questions, one question included the term, "commercial," and the other question did not include "commercial." In general, there was not a markedly negative reaction to the term "commercial." In the first paired questions, the mean for "knowing that fishermen can harvest fish sustainably from coastal waters in California" was 7.44, and 26% gave a rating of 10 in importance, while the mean for "knowing that commercial fishermen can harvest fish sustainably from coastal waters in California" was 7.22, with 25% giving a rating of 10. The second set of paired questions (knowing that family-run commercial fishing boats can harvest fish sustainably from coastal waters in California and knowing that family-run fishing boats can harvest fish sustainably from coastal waters in California had identical means at 6.93, and 22% and 21%, respectively, rated their importance at 10.
- The survey asked five questions related to what may harm the ocean, from fishing in general, to recreational fishing, to family-run commercial fishing boats, to large corporate commercial fishing companies, and even to personal consumer decisions. Looking at the results of the five questions together, large corporate commercial fishing companies are perceived most

negatively, with 59% agreeing that those companies are harming the ocean's fisheries. No other question had more than 29% agreeing. The results are further discussed below:

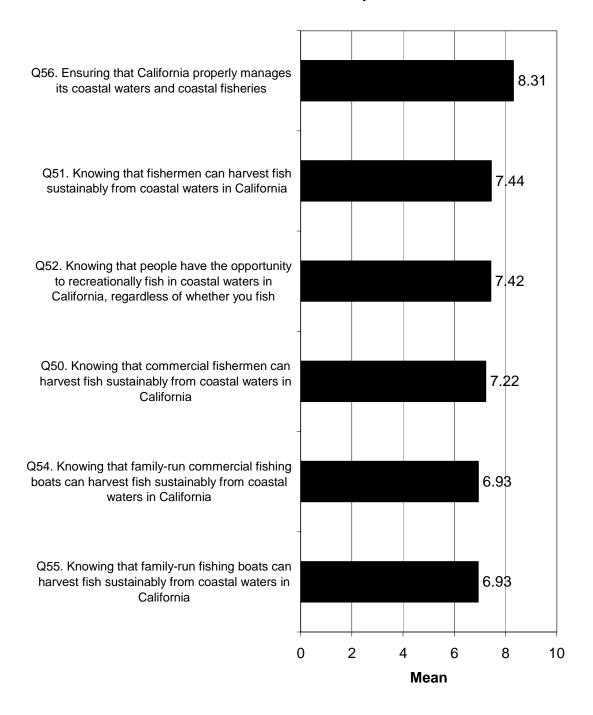
- In the most general question, 25% agree that fishing harms the ocean, but 65% disagree.
- In the question allowing comparison between large corporate commercial fishing companies versus family-run commercial fishing boats, the large corporate commercial fishing companies (59% say they are harming the ocean's fisheries) fare poorly relative to family-run commercial fishing boats (29% say they are harming the ocean's fisheries).
- Even consumers are perceived as harming the ocean's fisheries by some: 27% agree that
  people who consume frozen, packaged seafood from large supermarket chains are
  harming the ocean's fisheries.
- Recreational fishing is not perceived negatively: only 16% agree that people who fish recreationally in California are harming the ocean's fisheries.
- Four questions explore opinions regarding possible causes of fishing declines and possible bans on (or reductions of) fishing. When overfishing is identified as a reason for declining fish populations, a large majority of Californians agree (72%) that commercial and recreational fishing should be banned. However, if the reason for the decline is undetermined or is shown to be caused by something other than fishing, agreement on a ban is much lower (52% and 58% agree, respectively). However, these latter results show that, even if fishing is not a problem but fisheries are declining, Californians show deference to the fisheries over commercial and recreational fishing. A final result of these questions demonstrates Californians moderate opinions: the most agreement, if fisheries are declining, is for a *reduction* in fisheries harvest rather than an outright ban.
- Another set of four questions explores opinions on harvesting California's coastal fisheries. Again, there is a split in opinions regarding the protection versus utilization dichotomy, but there is much concern about commercial fishermen's livelihoods, particularly family-run fishing boats.
  - In one question, deference is again shown for family-run commercial fishing boats over corporate commercial fishing companies: 52% agree that if scientific evidence shows that fish populations are declining, only corporate commercial fishing companies should

- be banned from fishing in California's coastal waters, but family-run commercial fishing boats should be allowed; disagreement for this is 36%.
- One question shows the split in opinion on commercial fishing: 50% agree that if scientific evidence shows that fish populations are declining, commercial fishing should be banned, but recreational fishing is okay; 40% disagree.
- When discussion of banning commercial fishing if scientific evidence shows that fish populations are declining includes the caveat that "even if it means that commercial fishermen's livelihood will be ended," more disagree (45%) than agree (39%).
- The least agreement is for a complete ban of fishing, both commercial and recreational, if scientific evidence shows that fish populations are declining: only 32% agree, but 59% disagree.
- Californians show concern both for having their seafood harvested sustainably as well as for ensuring that California's seafood industry not be unduly harmed. The survey asked seafood consumers (those who typically eat seafood at least once a month) five questions about their opinions on the harvesting of seafood. Overwhelming majorities agree that it matters to them that local seafood is harvested sustainably (86% agree) and that imported seafood is harvested sustainably (79% agree). They also overwhelmingly agree (82%) that they would buy California seafood over imported seafood when informed that California currently has more conservation safeguards in place than exist in most other countries. Seafood consumers show concern about California's fishing industry, with less than a majority agreeing that they would be willing to buy their seafood only from international markets to put the highest priority on protecting California's fisheries (37%), and even less than that saying that they would be willing to buy their seafood from non-California sources if they knew that doing so would likely force many family-run commercial fishermen out of business in California (23%). Regarding this last question, 63% disagree that they would be willing to buy their seafood from non-California sources if they knew that doing so would likely force many family-run commercial fishermen out of business in California.
- ➤ In a question directly about use or protection of California's coastal fisheries, Californians are in the middle: they favored the moderate answers ("utilized with just a few limitations"

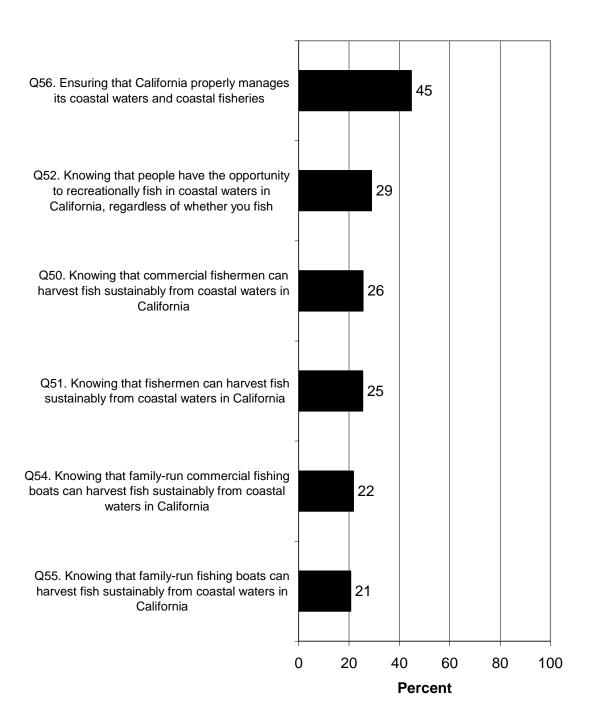
and "mostly protected with just a little utilization") over the extreme answers ("fully utilized with almost no limitations" and "fully protected with almost no utilization"). Furthermore, the two moderate answers are supported by nearly equal percentages. Overall, this question shows an almost even split between utilization and protection.

- Another question, like the one discussed above, asks about opinions on use versus protection of California's coastal fisheries. There is much more support (by more than 2 to 1) for allowing fishing in all areas, with science-based limits on the total harvest (68% support this position) over fully protecting (i.e., prohibiting *all* harvesting in) some areas with the concomitant result that fishermen would concentrate their fishing in remaining open areas (24%). In simple terms, Californians support *harvest limitations* over *complete harvest bans*.
- ➤ More Californians oppose (38%) than support (27%) adding additional fishing restrictions to California coastal waters if it means that family-run commercial fishing boats may go out of business. As a demonstration of the difficulty in making this choice, nearly a third answered this question with "don't know" (29%).
- Finally, the survey sought to determine exactly how Californians perceive the term, "protect," as in "We should protect the ocean." In this regard, they are, again, moderate in their opinions: they overwhelmingly (87%) perceive "protect" to mean that the resources can be used in a sustainable way rather than not used at all (8%). This is an important consideration when examining statements and statistics about whether Californians want to "protect" the ocean.

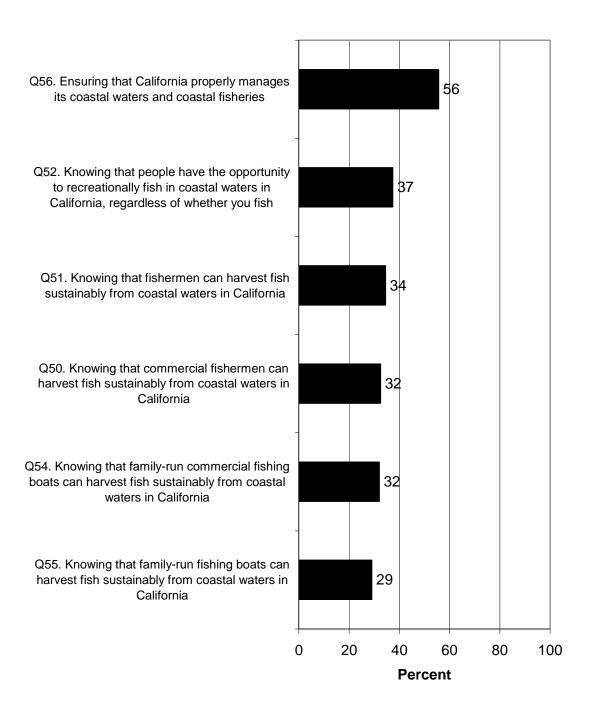
# Q50, 51, 52, 54, 55, 56. Mean ratings of importance of each of the following. (Don't know responses removed.)



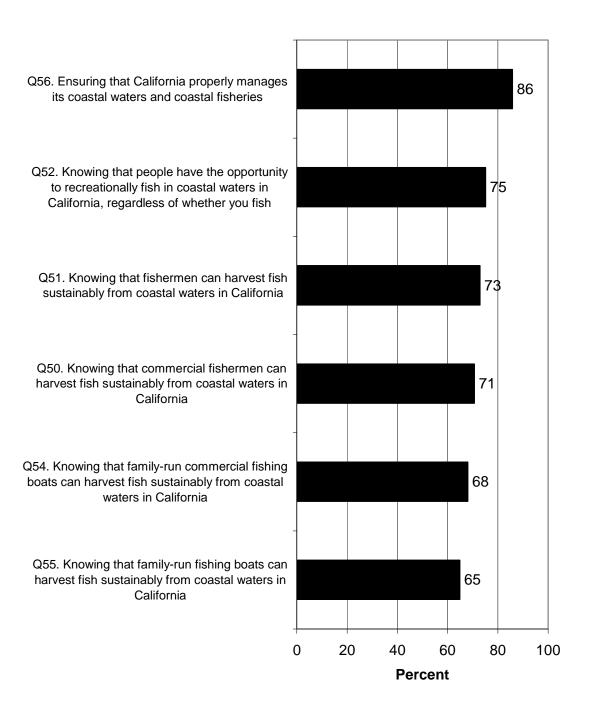
Q50, 51, 52, 54, 55, 56. Percent giving a rating of 10 in importance for each of the following.



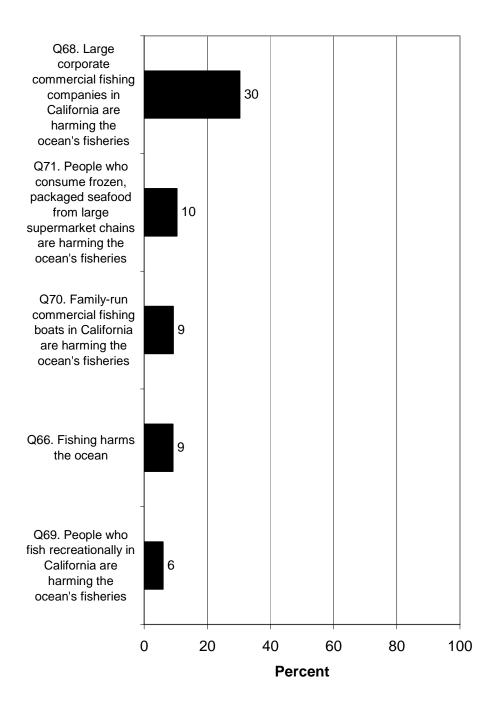
### Q50, 51, 52, 54, 55, 56. Percent giving a rating of 9 or 10 in importance for each of the following.



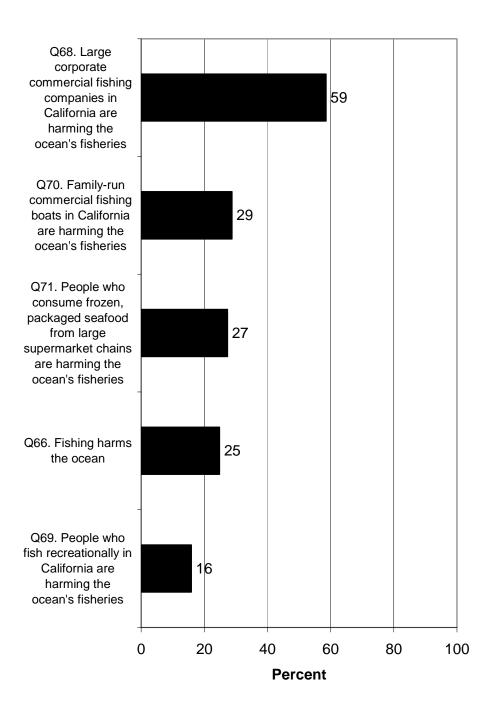
## Q50, 51, 52, 54, 55, 56. Percent giving a rating of greater than the midpoint (5) in importance for each of the following.



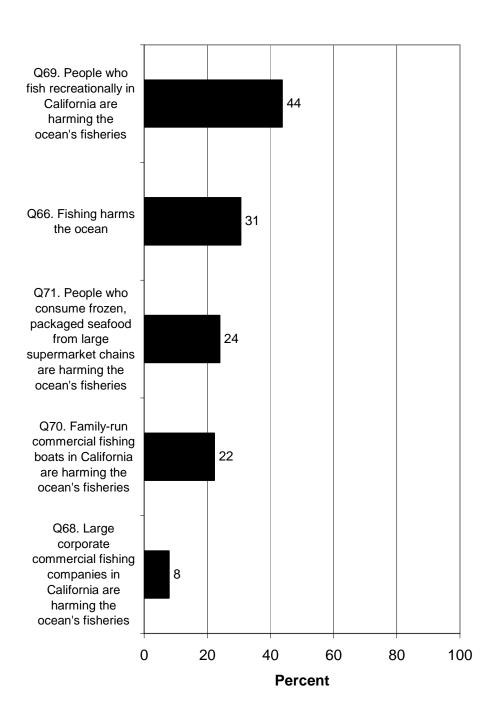
Q66, 68-71. Percent who strongly agree with the following.



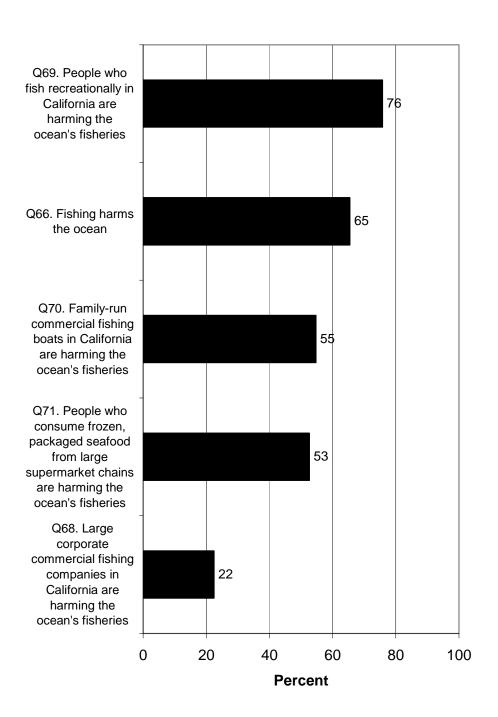
Q66, 68-71. Percent who strongly or moderately agree with the following.



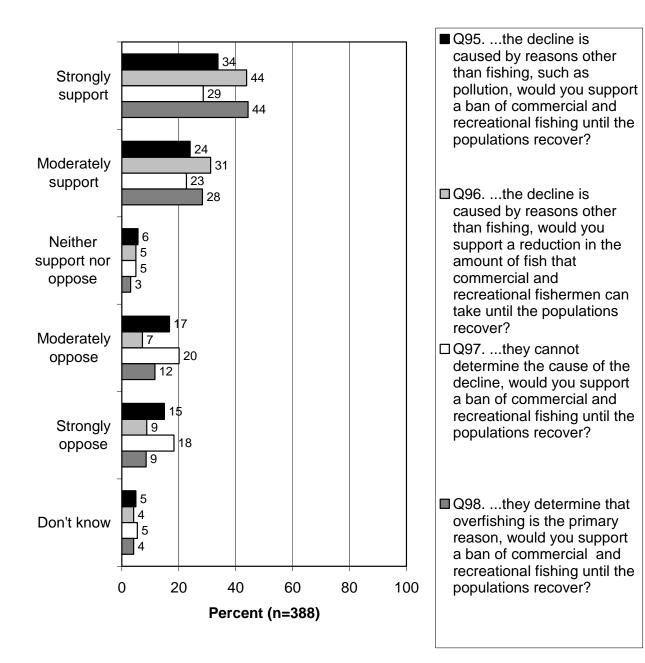
Q66, 68-71. Percent who strongly disagree with the following.



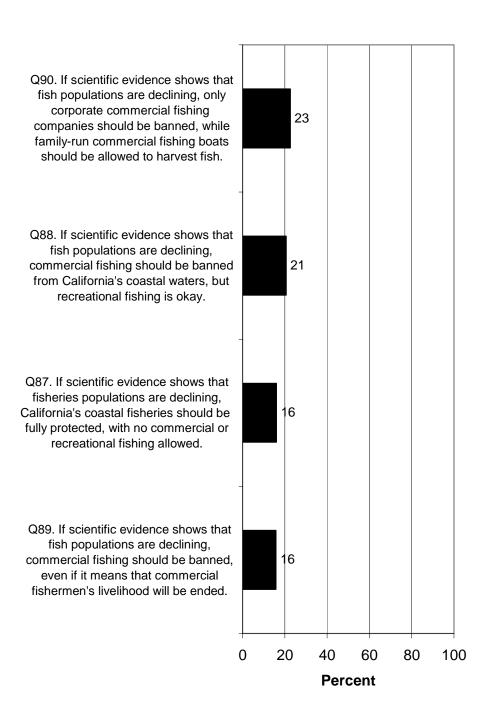
Q66, 68-71. Percent who strongly or moderately disagree with the following.



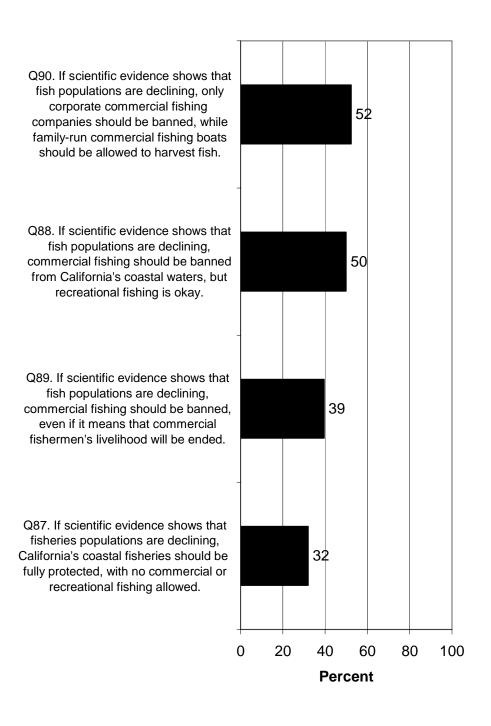
# Q95-98. If fisheries scientists determined that California's coastal fisheries are declining because of the following conditions, would you support a ban of the following until the populations recover?



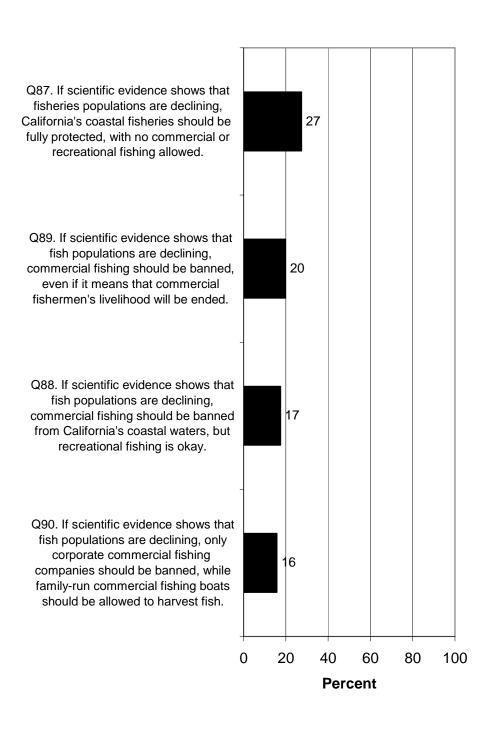
Q87-90. Percent who strongly agree with the following.



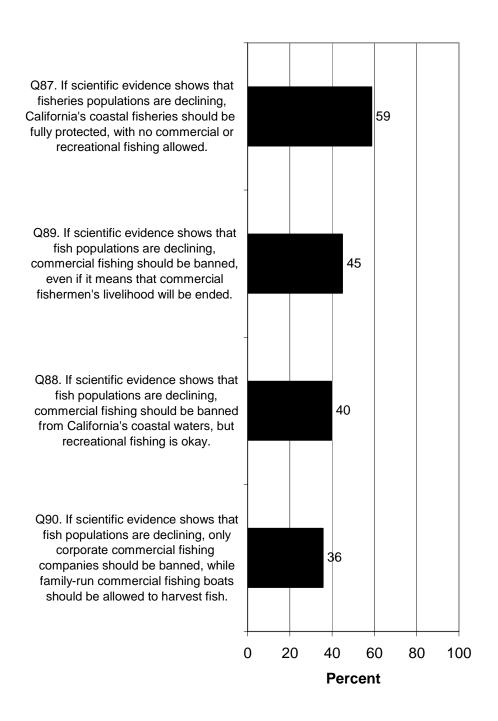
### Q87-90. Percent who strongly or moderately agree with the following.



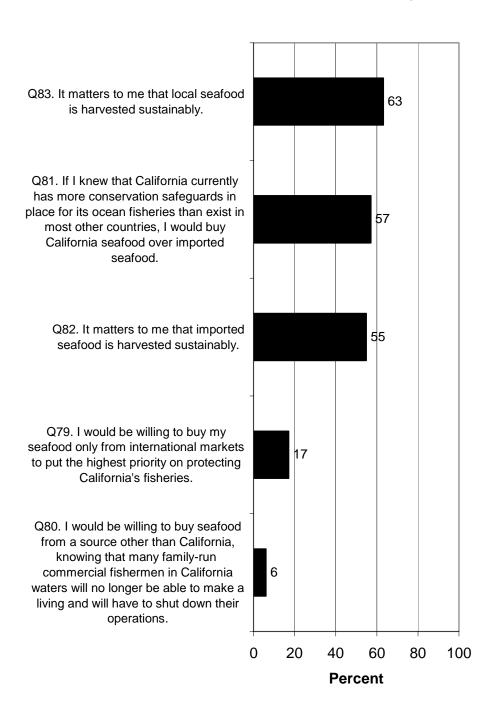
Q87-90. Percent who strongly disagree with the following.



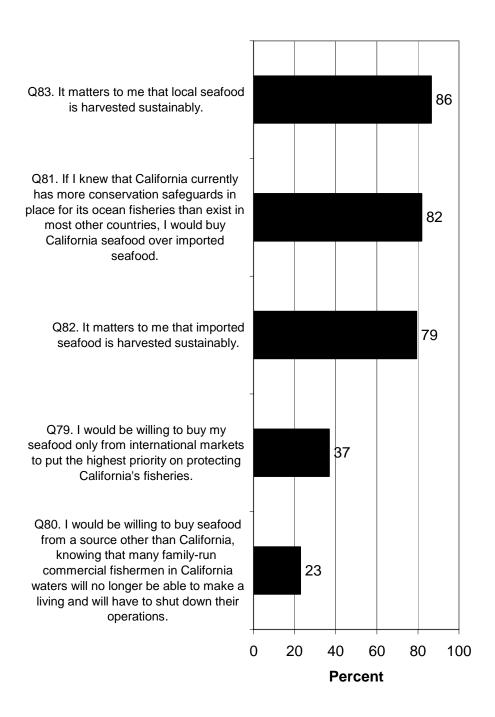
#### Q87-90. Percent who strongly or moderately disagree with the following.



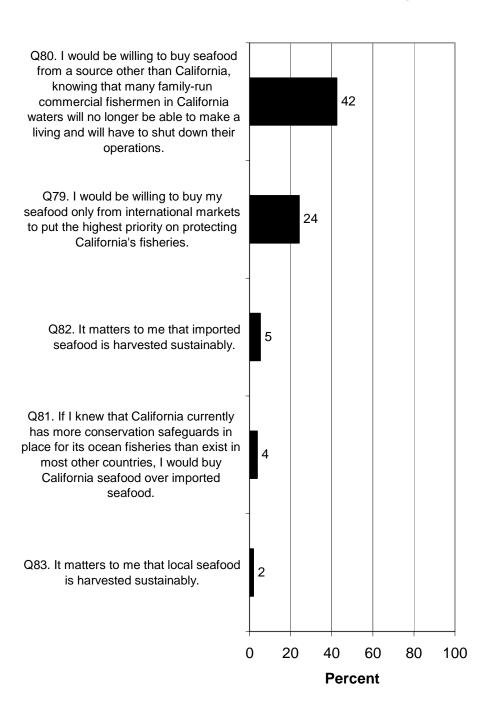
### Q79-83. Percent who strongly agree with the following.) (Asked of those who eat seafood at least once a month.)



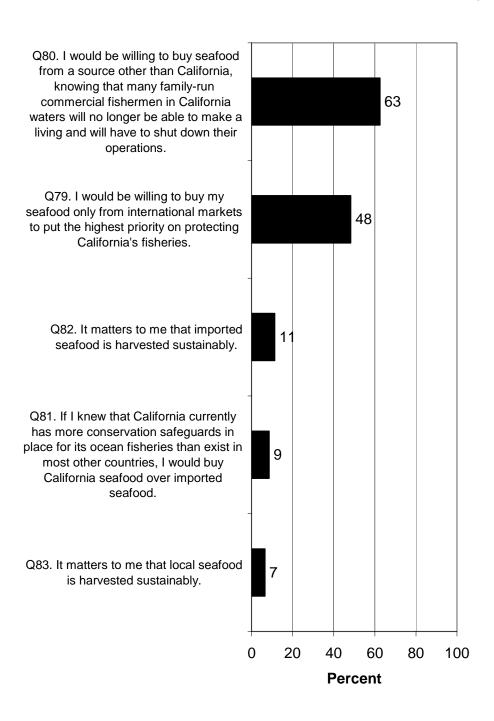
## Q79-83. Percent who strongly or moderately agree with the following.) (Asked of those who eat seafood at least once a month.)



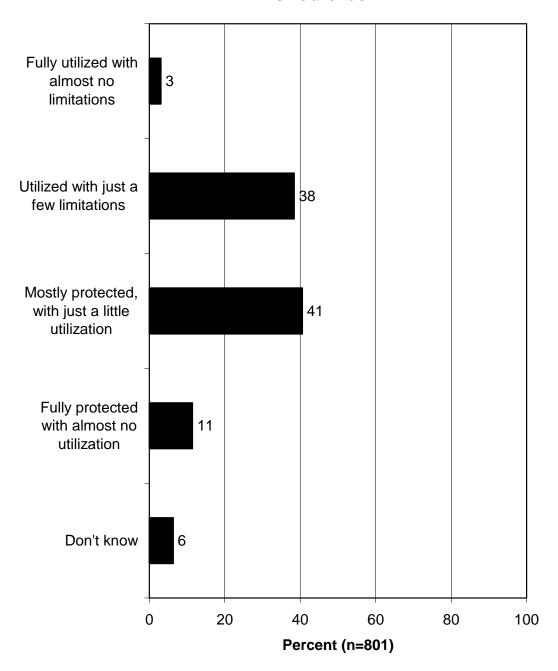
Q79-83. Percent who strongly disagree with the following.) (Asked of those who eat seafood at least once a month.)



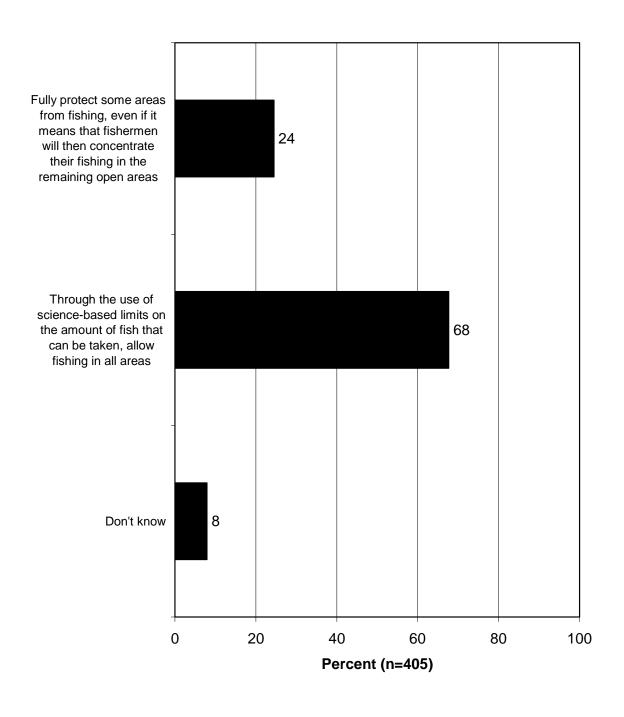
## Q79-83. Percent who strongly or moderately disagree with the following.) (Asked of those who eat seafood at least once a month.)



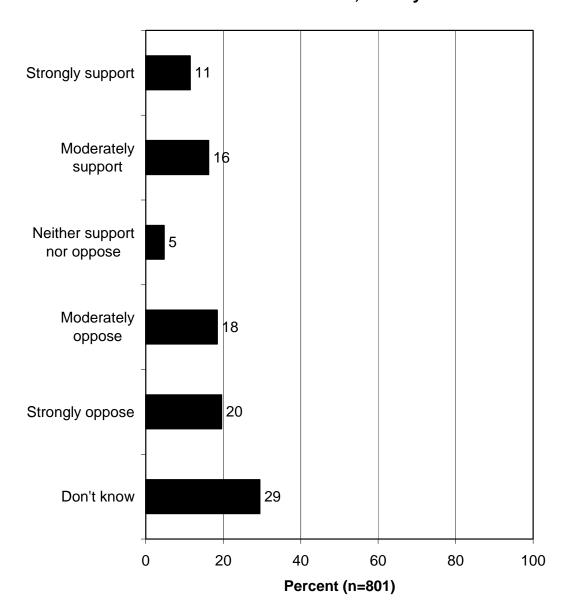
Q57. What position regarding use or protection of California's coastal fisheries comes closest to your personal views? California's coastal fisheries should be:



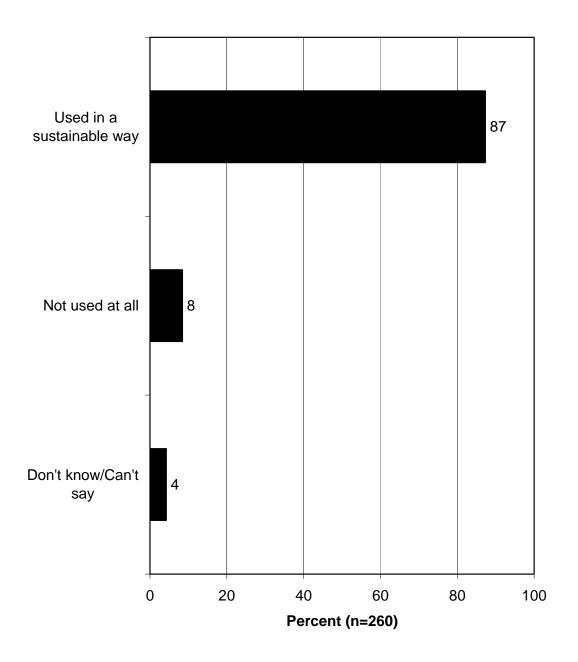
#### Q59. Which of the following positions do you think is better for California's coastal fisheries?



Q101. About 3% of California's ocean waters are already fully protected, meaning that no fishing or other extractive activities are allowed. Another portion of California's ocean is closed to most fishing, and the amount of fish that can be taken elsewhere has been reduced. If fishing restrictions are increased, family-run commercial fishing boats may go out of business. Knowing this, do you support or oppose adding to the restricted areas in the ocean waters in California, or do you not know?



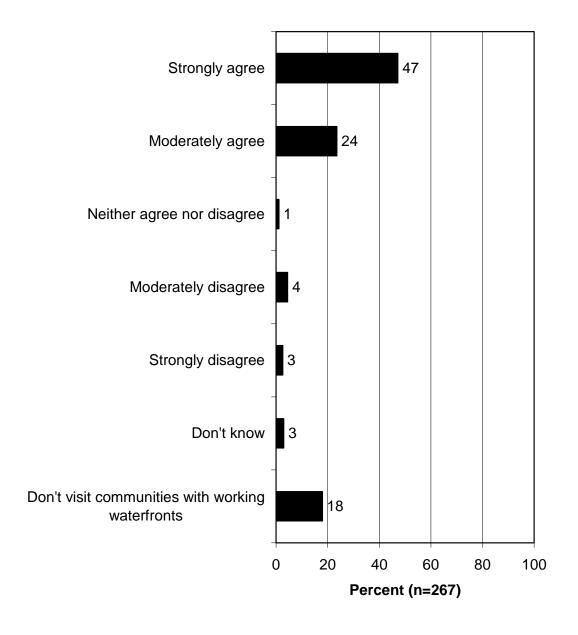
Q62. When you hear the word, "protect," as in "We should protect the ocean," do you think it means that ocean resources should be used in a sustainable way, or do you think it means that ocean resources should not be used at all?



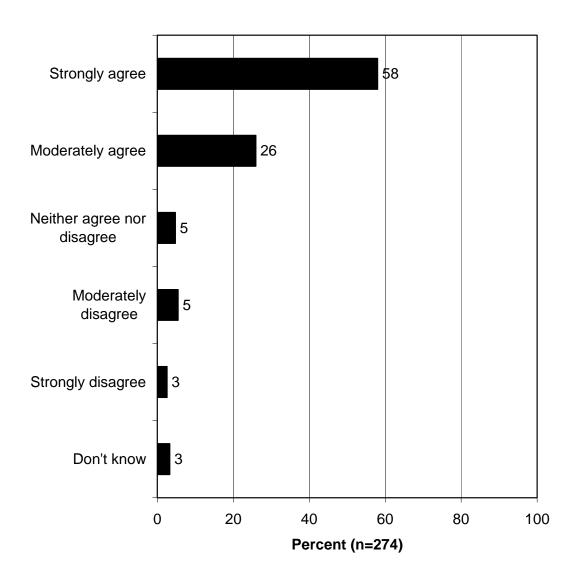
## **FISHERIES AND TOURISM**

- ➤ Working waterfronts are important for tourism in coastal towns, as a large majority of Californians (71%) agree that they seek out and enjoy going to working waterfronts in communities that have them; only 7% disagree.
- ➤ In another question that pertains to tourism, an overwhelming majority of Californians (84%) agree that the State of California and local governments should work to keep charter boat opportunities available to the public, given that charter boat businesses provide opportunities to people who otherwise would not be able to boat because they cannot afford a boat of their own.

Q63. "Working waterfront" refers to places where ocean-dependent businesses are located. Do you agree or disagree that when visiting a coastal California community that has a working waterfront, you seek out and enjoy going to the waterfront?



Q64. Many coastal communities have charter boat businesses on their waterfront, which take people out on day trips. Typically, these charter boats enable people to go out on the water who otherwise cannot afford a boat of their own. Do you agree or disagree that the state of California and local governments should work to keep this type of opportunity available for the public?



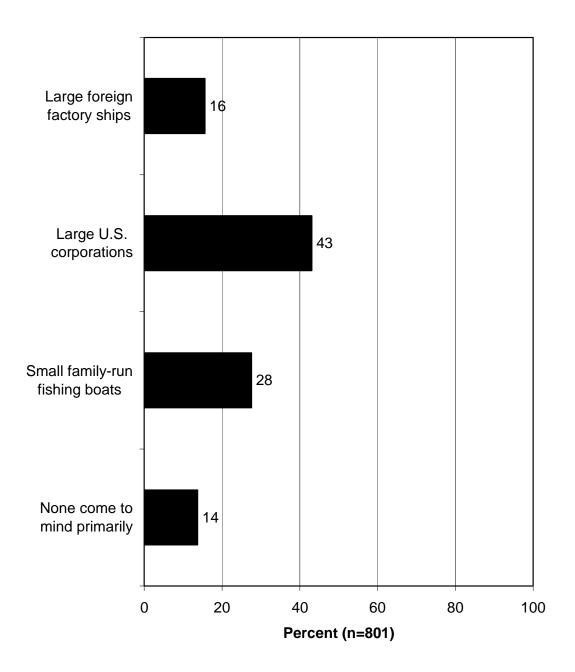
## CONCERNS REGARDING COMMERCIAL FISHING IN CALIFORNIA

- The survey asked Californians what exactly they think of when the term, "commercial fishing," is applied to California, and family-run commercial fishing boats are *not* primarily on their mind, as 59% think primarily of large foreign factory ships or large U.S. corporations; only 28% think primarily of small family-run fishing boats.
- The survey asked Californians directly to rate the importance of commercial fishing to California's economy, and they think it is important: a large majority (60%) rated it above the midpoint, and 79% rated it at the midpoint or higher; only 17% rated it less than the midpoint.
- ➤ Californians do not perceive that fishing itself harms the ocean: in answer to a basic question, two-thirds of Californians (66%) disagree that fishing harms the ocean, and only 25% agree. However, when asked about large corporate commercial fishing companies, the perception is more negative: 58% agree that large corporate commercial fishing companies are harming the ocean's fisheries.
- A large majority of Californians (73%) perceive corporate commercial fishing companies as being a high or moderate threat to California's marine waters, habitat, and fisheries; conversely, only 5% say that they are not a threat at all, and 10% say that they are only a low threat. Family-run commercial fishing boats are not perceived as being as great a threat, with opinion evenly split: 44% see them as a high or moderate threat to California's marine waters, habitat, and fisheries, and 44% see them as only a low threat or not a threat at all.

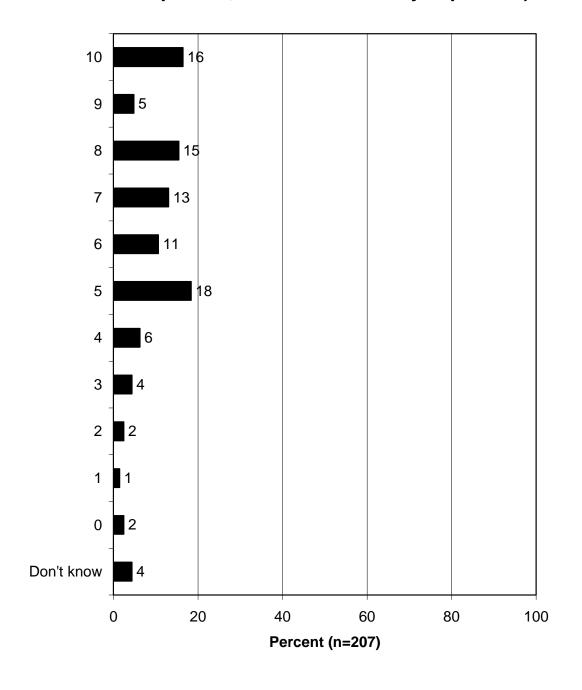
- Disagreement (59%) far exceeds agreement (32%) for a complete ban of fishing, both commercial and recreational, if scientific evidence shows that fish populations are declining. However, agreement is higher if recreational fishing is allowed while commercial fishing is still banned, if scientific evidence shows that fish populations are declining: 50% agree and 40% disagree. Finally, when a ban of commercial fishing is discussed with the caveat that commercial fishermen's livelihood will be ended, agreement erodes: only 39% agree, while 45% disagree. In short, Californians, in general, do not favor a complete ban, and they are concerned about commercial fishermen's livelihood, although substantial percentages, nonetheless, support a ban if scientific evidence shows that fish populations are declining.
- There is much more support (by more than 2 to 1) for allowing fishing in all areas, with science-based limits on the total harvest (68% support this position) over fully protecting (i.e., prohibiting *all* harvesting in) some areas with the concomitant result that fishermen would concentrate their fishing in remaining open areas (24%). In simple terms, Californians support *harvest limitations* over *complete harvest bans*. (This graph is shown in the section of this report titled, "Opinions Regarding Utilization, Harvest, and Management of Fisheries.)
- ➤ When presented with the scenario where fish stocks are stable or already recovering, there is little support for a ban, as only 24% agree that commercial fishing should still be banned if scientific evidence shows that fish stocks are stable or already recovering (66% disagree). Slightly higher agreement (37%) is found when it is suggested that commercial fishing be banned while allowing recreational fishing, if scientific evidence shows that fish stocks are stable or already recovering (53% disagree).
- When asked to name commercially fished species off the coast of California, respondents most commonly named salmon (34%), tuna (28%), halibut (16%), and bass (13%). Note that 40% could not name a species. In a follow-up question asking if any of the named species is in trouble, salmon, tuna, and abalone are most commonly named.

➤ Of the 801 respondents to the survey, 6 respondents (0.75%) personally work in the commercial or recreational fishing industry or a closely related field. These include recreational fishing, restaurant, seafood processing, fishing equipment retail, and a government agency. Additionally, 1.75% have family who work in the commercial or recreational fishing industry or a closely related field, including commercial fishing, recreational fishing, aquaculture, harbor activities, seafood processing, and a government agency. Finally, 5.5% have one or more friends who work in the commercial or recreational fishing industry or a closely related field, including commercial and recreational fishing, fishing equipment retail, seafood processing and retailing, and the restaurant industry.

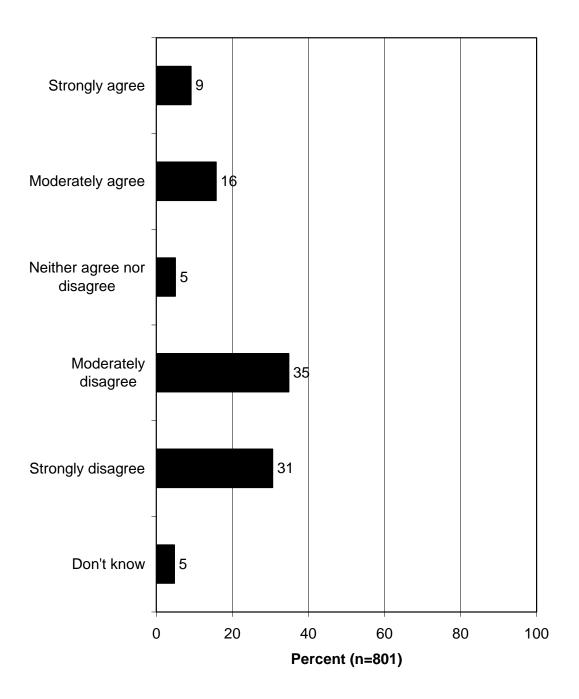
Q75. When you think of the term, "commercial fishing," as it applies to California, do you think primarily of large foreign factory ships, large U.S. corporations, or small family-run fishing boats?



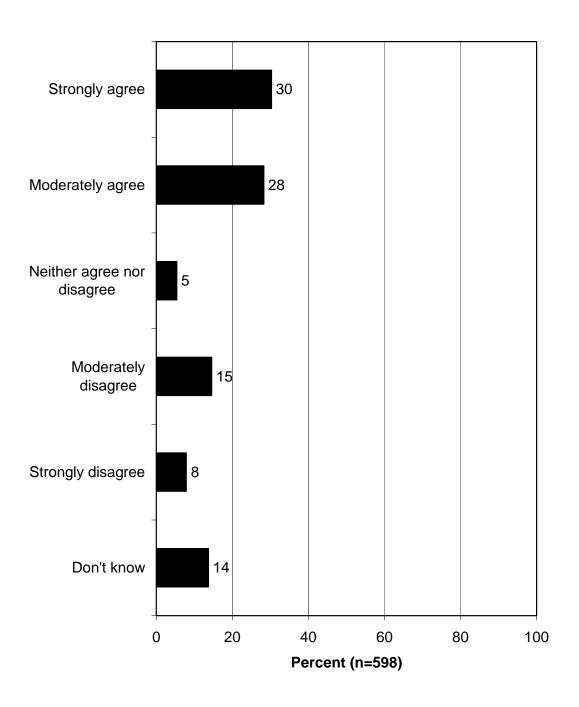
Q20. What about commercial fishing? (How important is commercial fishing to California's economy?) (The scale is 0-10, where 0 is not at all important, and 10 is extremely important.)



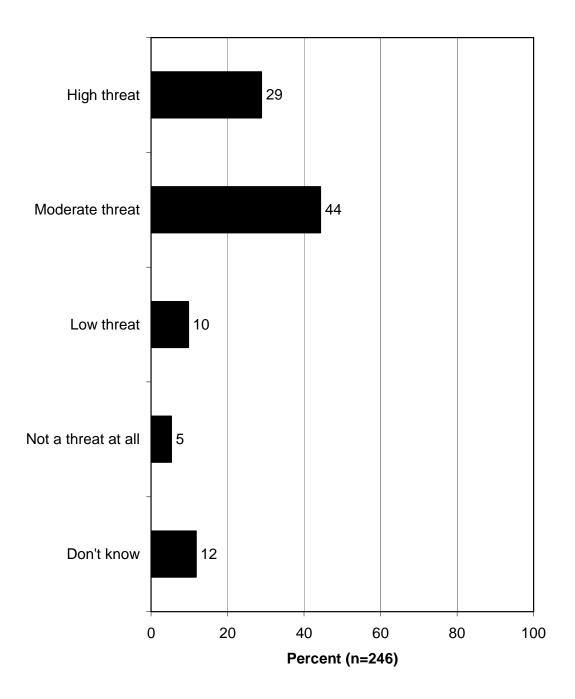
Q66. Do you agree or disagree that fishing harms the ocean?



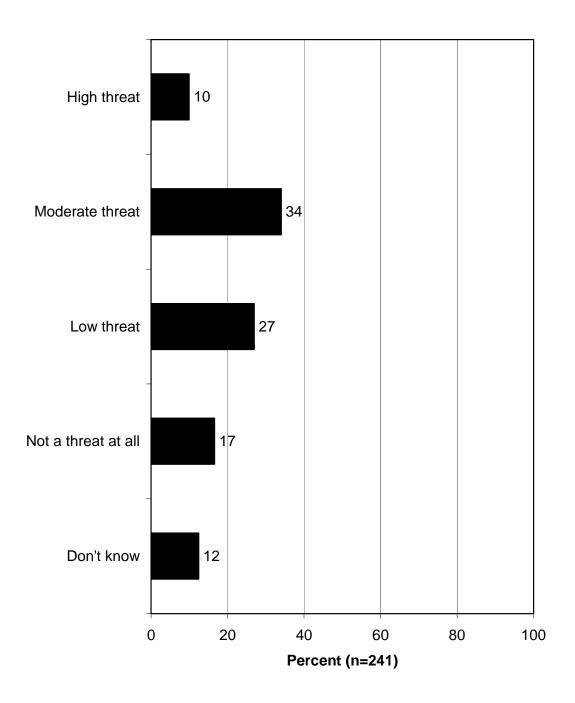
Q68. Do you agree or disagree that large corporate commercial fishing companies in California are harming the ocean's fisheries?



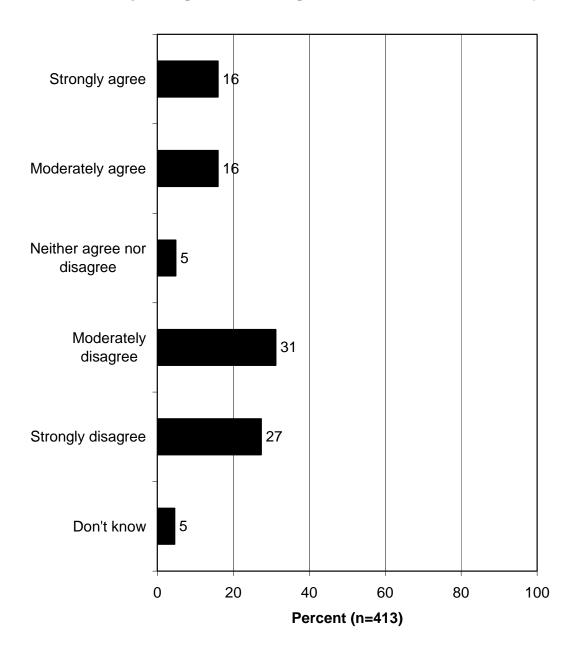
Q30. What about corporate commercial fishing companies? (How much of a threat are these to California's marine waters, habitat, and fisheries?)



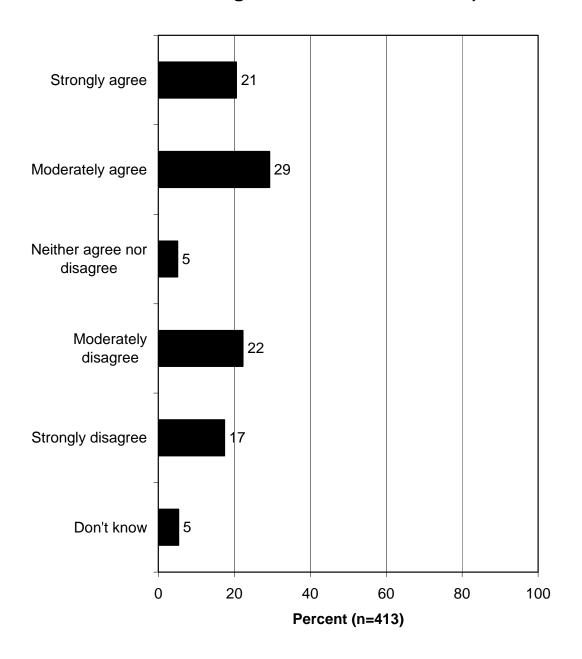
Q32. What about family-run commercial fishing boats? (How much of a threat are these to California's marine waters, habitat, and fisheries?)



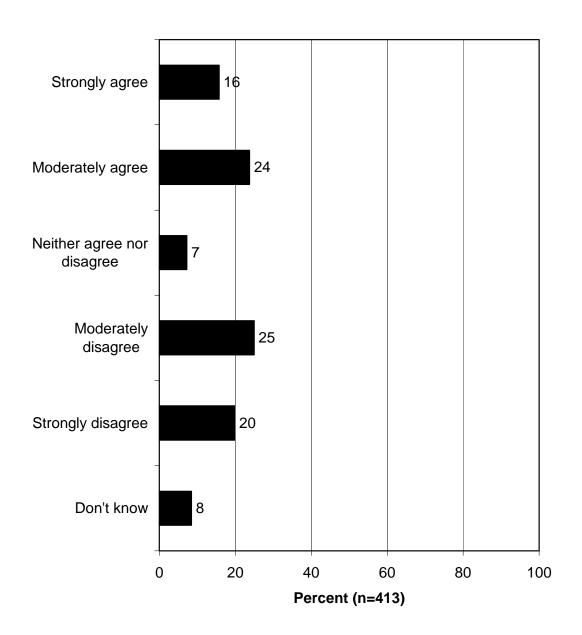
Q87. If scientific evidence shows that fisheries populations are declining, California's coastal fisheries should be fully protected, with no commercial or recreational fishing allowed. (Do you agree or disagree with this statement?)



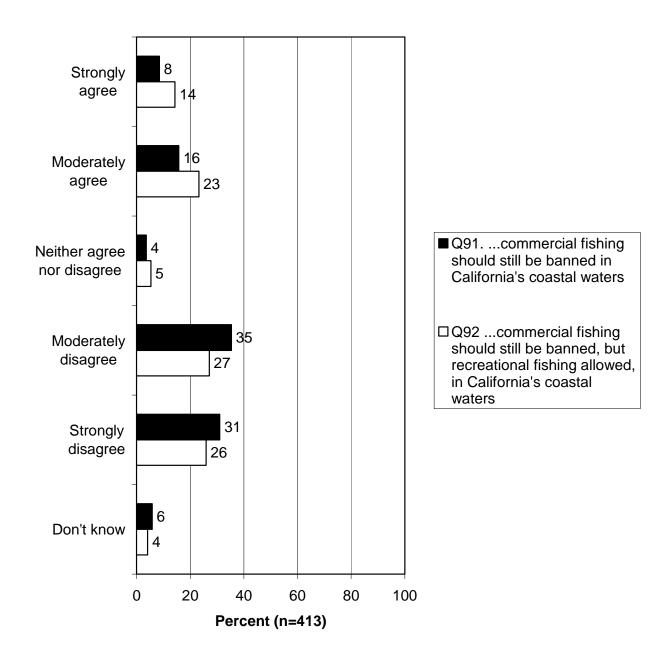
Q88. If scientific evidence shows that fish populations are declining, commercial fishing should be banned from California's coastal waters, but recreational fishing is okay. (Do you agree or disagree with this statement?)



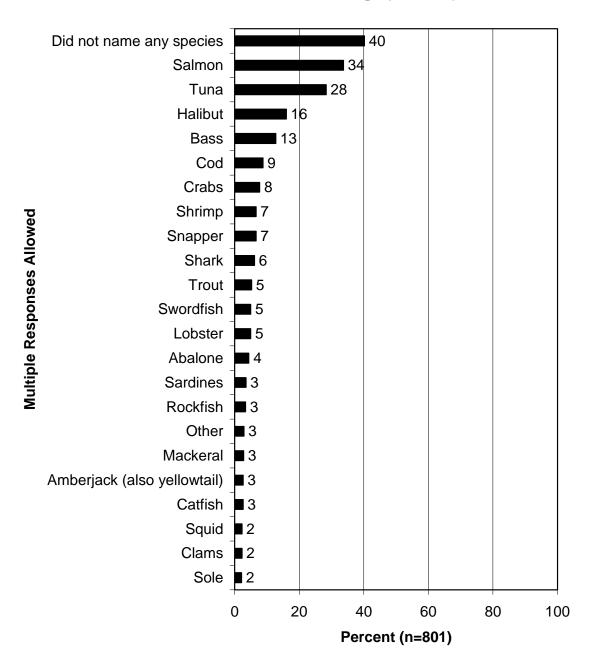
Q89. If scientific evidence shows that fish populations are declining, commercial fishing should be banned, even if it means that commercial fishermen's livelihood will be ended. (Do you agree or disagree with this statement?)



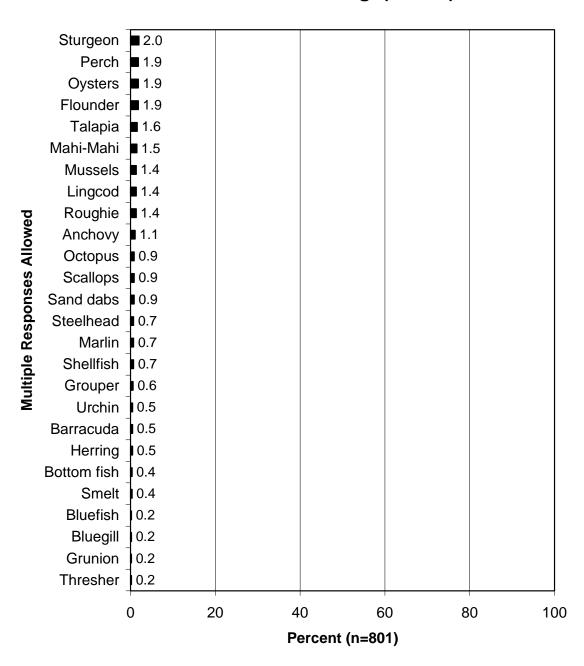
Q91 and 92. If scientific evidence shows that fish stocks are stable or already recovering, do you agree or disagree that:



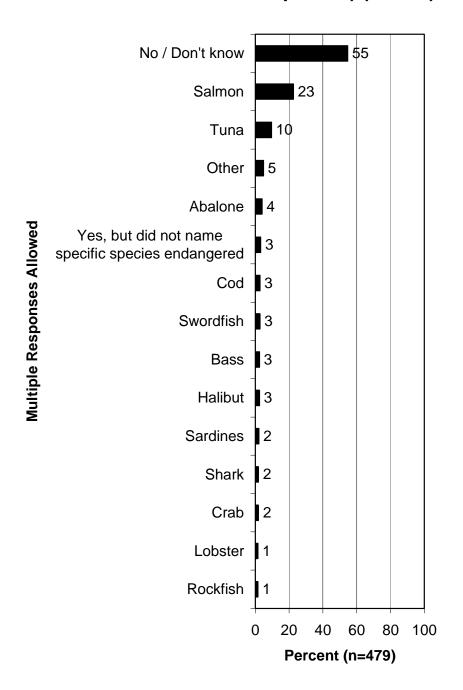
Q99. Please tell me all the fish species that you can think of that are or were commercially fished in California's coastal waters. Remember that we are only discussing commercial fishing here, not recreational fishing. (Part 1.)



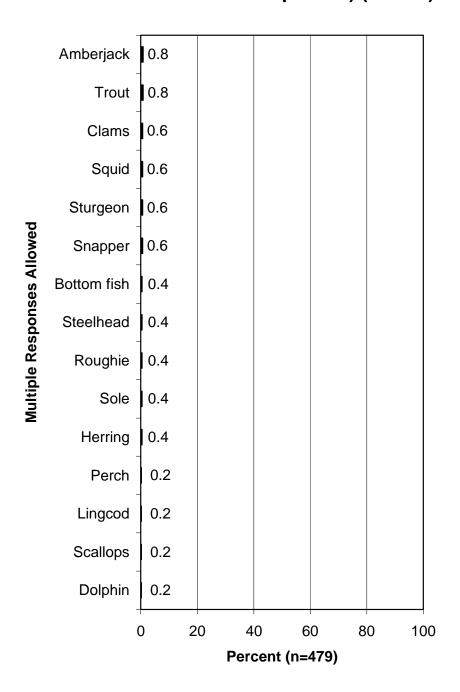
Q99. Please tell me all the fish species that you can think of that are or were commercially fished in California's coastal waters. Remember that we are only discussing commercial fishing here, not recreational fishing. (Part 2.)



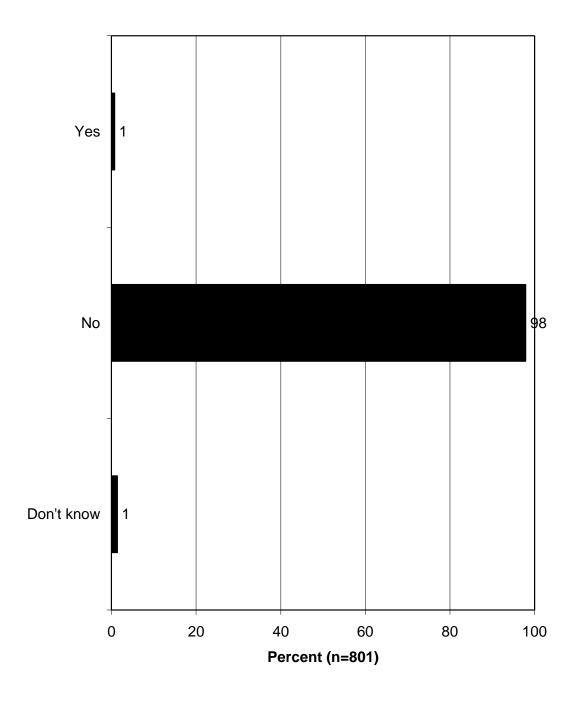
Q100. Are any of the fisheries you just named in trouble? (Asked of those who named commercially fished species.) (Part 1.)



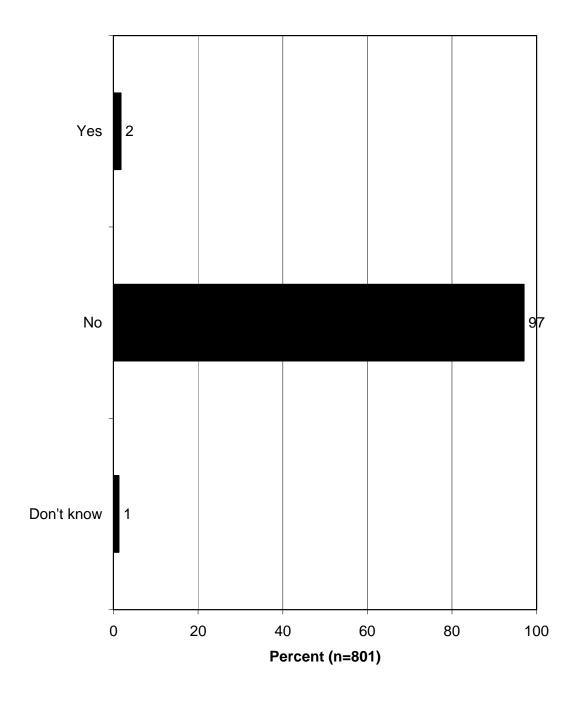
Q100. Are any of the fisheries you just named in trouble? (Asked of those who named commercially fished species.) (Part 2.)



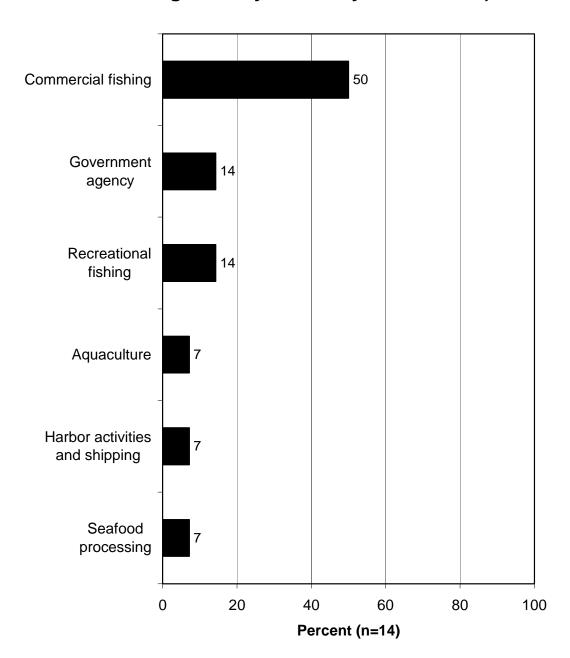
Q102. Do you personally work in the commercial or recreational fishing industry or closely related field?



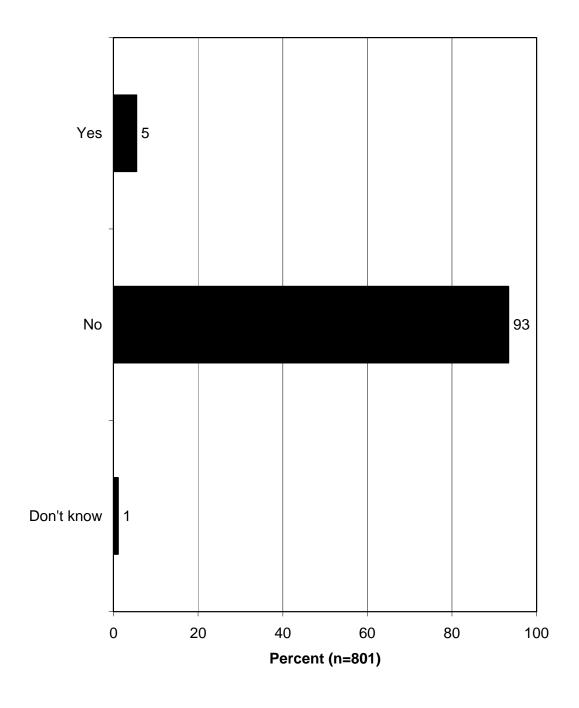
Q104. Do any of your family work in the commercial or recreational fishing industry or a closely related field?



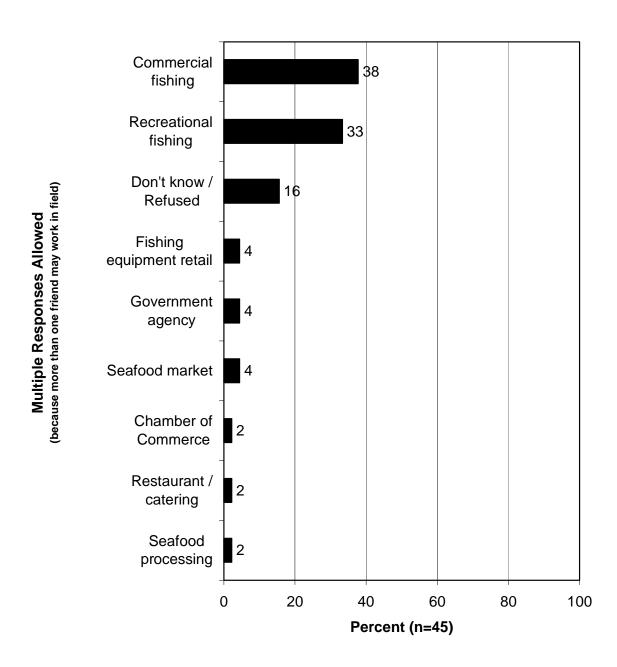
Q105. What is the commercial or recreational fishing industry or closely related field in which your family works? (Asked of those who have family working in the commercial or recreational fishing industry or closely related field.)



Q106. Do any of your friends work in the commercial or recreational fishing industry or a closely related field?



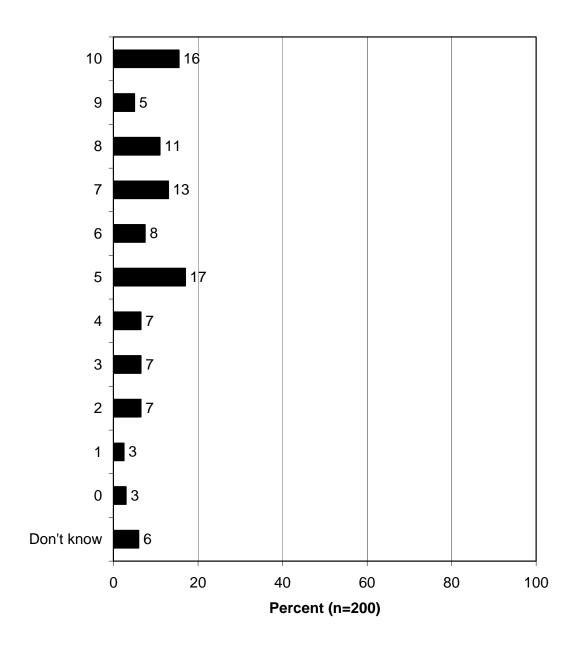
Q107. What is the commercial or recreational fishing industry or closely related field in which your friend(s) work? (Asked of those who have friend(s) working in the commercial or recreational fishing industry or closely related field.)



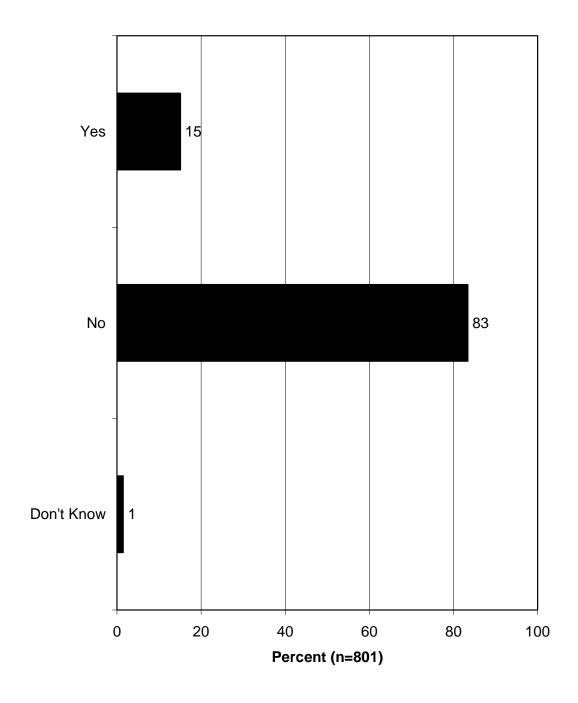
## CONCERNS REGARDING RECREATIONAL FISHING IN CALIFORNIA

- The survey asked Californians to rate the importance of recreational fishing to California's economy, and they think it is somewhat important: just barely a majority (52%) rated it above the midpoint, and 69% rated it at the midpoint or higher. However, a quarter (25%) rated it less than the midpoint in importance.
- ➤ A substantial percentage of California residents (15%) consider themselves to be recreational saltwater anglers.
- Recreational fishing is not perceived as a great threat to California's marine waters, habitat, and fisheries: only 5% rate it as a high threat, while 66% say it is a low threat or not a threat at all. Furthermore, 76% disagree that people who recreationally fish in California are harming the ocean's fisheries (only 16% agree). On the other hand, the opportunity to be able to recreationally fish is perceived as important (even if the respondent does not personally fish himself or herself): an overwhelming majority (88%) rate ensuring that the opportunity exists at the midpoint or higher in the rating scale, and 29% rate it 10.
- ➤ Disagreement (59%) far exceeds agreement (32%) for a complete ban of fishing, both commercial and recreational, if scientific evidence shows that fish populations are declining. However, agreement is higher if recreational fishing is allowed while commercial fishing is still banned, if scientific evidence shows that fish populations are declining: 50% agree and 40% disagree.
- An overwhelming majority of Californians (84%) agree that the State of California and local governments should work to keep charter boat opportunities available to the public, given that charter boat businesses provide opportunities to people who otherwise would not be able to boat because they cannot afford a boat of their own. While the question did not specifically state that people would be fishing while on these charter boats, many charter boats are hired for fishing excursions. (This graph is shown in the section of this report titled, "Fisheries and Tourism.")

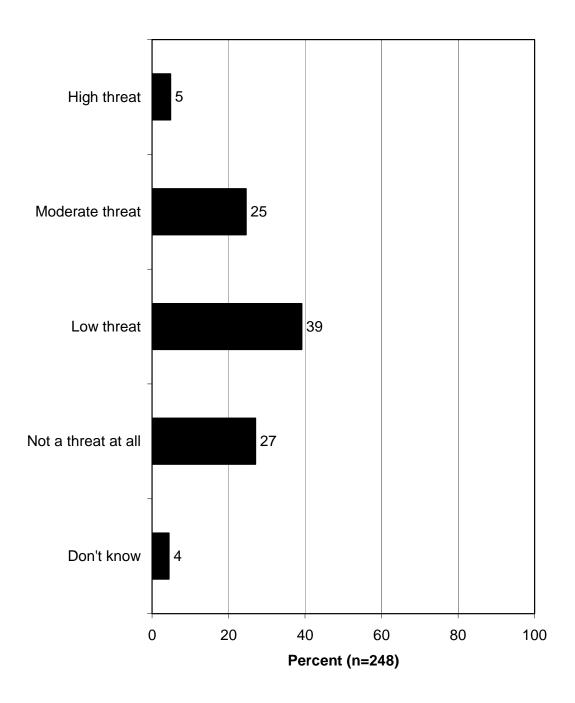
Q23. What about the recreational saltwater fishing industry? (How important is the recreational saltwater fishing industry to California's economy?) (The scale is 0-10, where 0 is not at all important, and 10 is extremely important.)



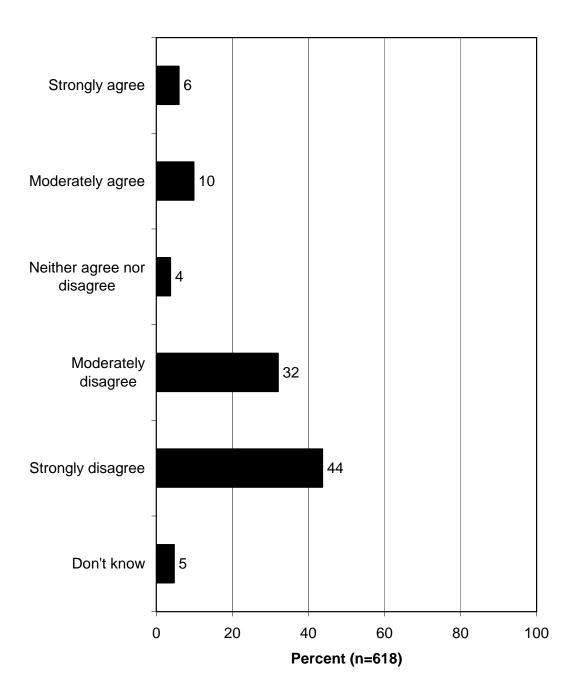
Q108. Do you consider yourself a recreational saltwater angler?



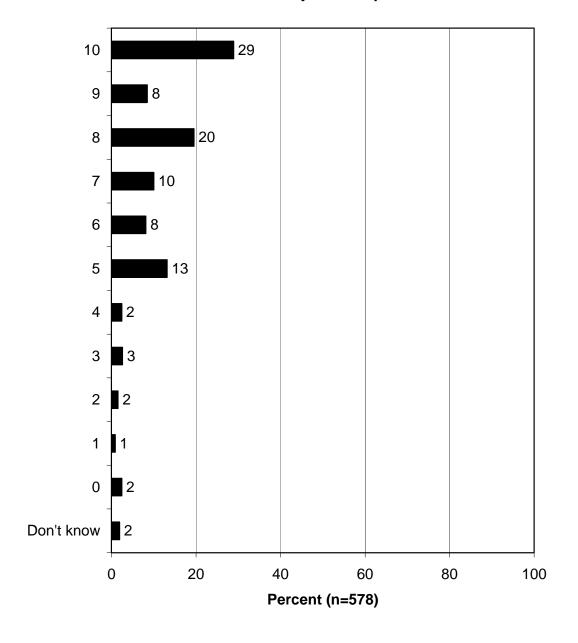
Q31. What about recreational fishing? (How much of a threat is this to California's marine waters, habitat, and fisheries?)



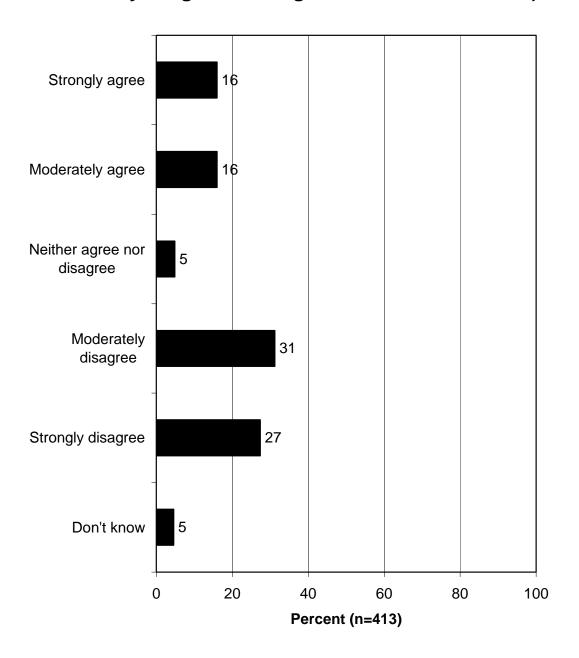
Q69. Do you agree or disagree that people who fish recreationally in California are harming the ocean's fisheries?



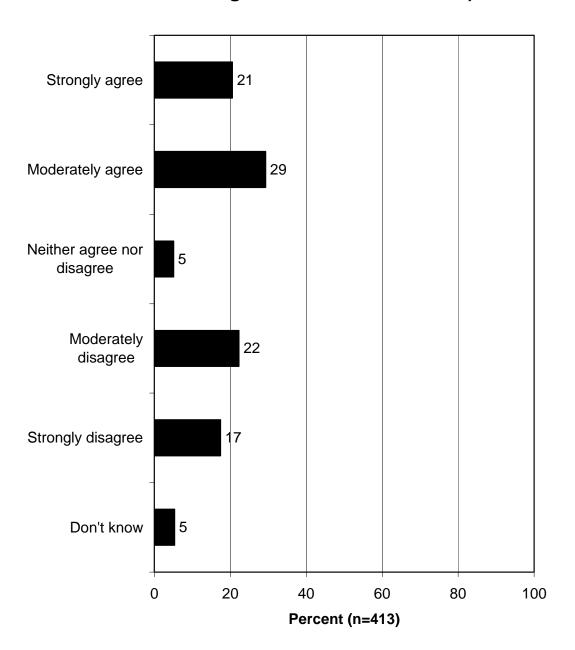
Q52. What about knowing that people have the opportunity to recreationally fish in coastal waters in California, regardless of whether you fish? (How important is it to you personally, on a scale of 0 to 10, where 0 is not at all important and 10 is extremely important.)



Q87. If scientific evidence shows that fisheries populations are declining, California's coastal fisheries should be fully protected, with no commercial or recreational fishing allowed. (Do you agree or disagree with this statement?)



Q88. If scientific evidence shows that fish populations are declining, commercial fishing should be banned from California's coastal waters, but recreational fishing is okay. (Do you agree or disagree with this statement?)

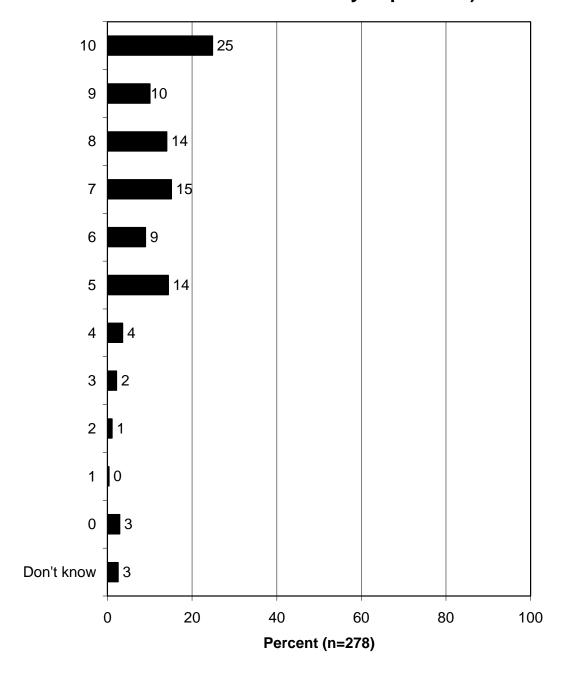


## CONCERNS REGARDING FAMILY-RUN BUSINESSES IN CALIFORNIA

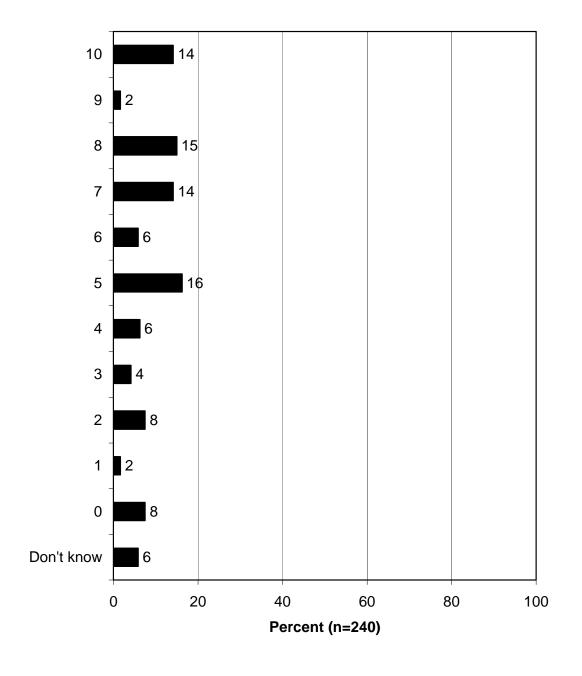
- ➤ Californians express much concern about the health of small family-run businesses: a quarter rate their concern about this at 10 (on a 0 to 10 scale), and the overwhelming majority (87%) rate their concern at the midpoint or higher. Compare this to their ratings of concern about large corporations in California: only 14% rate their concern about large corporations at 10, and 67% rate their concern at the midpoint or higher.
- ➤ Californians indicate a desire that family-run fishing boats can work and harvest fish sustainably in California. When asked how important it is to them that they know that family-run fishing boats can harvest fish sustainably in California, 80% to 84% give a rating at the midpoint or higher (note that one question asked part of the sample about family-run commercial fishing boats and the other asked a different part of the sample about family-run fishing boats without the term "commercial," and there was no marked difference in the two results).
- ➤ Californians indicate that they care that family-run commercial fishing boats operate in California's waters. Only 23% of seafood consumers (those who consume seafood at least once a month) agree that they would be willing to forgo buying California seafood knowing that doing so would drive family-run commercial fishing boats in California out of business; 63% disagree.
- More Californians oppose (38%) than support (27%) adding additional fishing restrictions to California coastal waters if it means that family-run commercial fishing boats may go out of business. As a demonstration of the difficulty in making this choice, nearly a third answered this question with "don't know" (29%). (This graph is shown in the section of this report titled, "Opinions Regarding Utilization, Harvest, and Management of Fisheries.")
- ➤ When asked directly whether family-run commercial fishing boats are harming the ocean's fisheries, the majority of Californians (55%) disagree, while 29% agree.

Finally, the survey asked Californians what exactly they think of when the term, "commercial fishing," is applied to California, and family-run commercial fishing boats are not primarily on their mind, as 59% think primarily of large foreign factory ships or large U.S. corporations, and only 28% think primarily of small family-run fishing boats. (This graph is shown in the section of this report titled, "Concerns Regarding Commercial Fishing in California.")

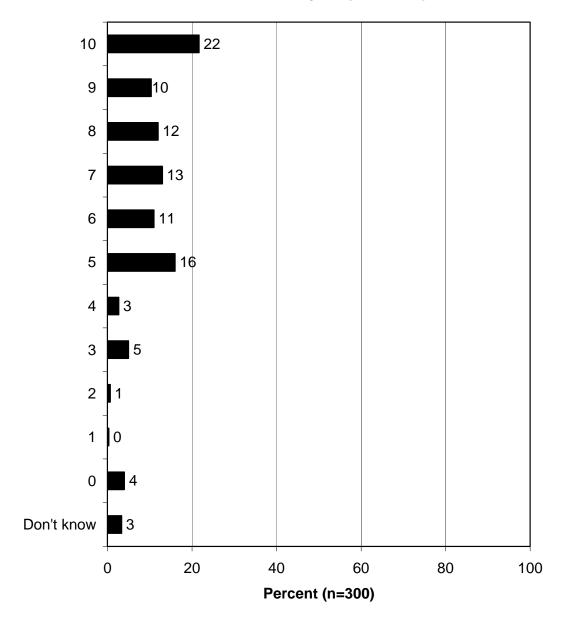
Q11. What about the health of small family-run businesses? (How concerned are you about this on a scale of 0 to 10, where 0 is not at all important, and 10 is extremely important?)



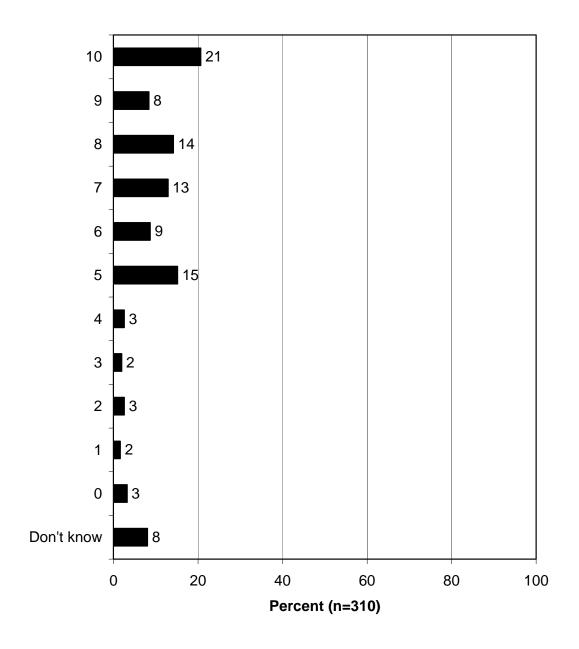
Q15. What about the health of large corporations in California? (How concerned are you about this on a scale of 0 to 10, where 0 is not at all important, and 10 is extremely important?)



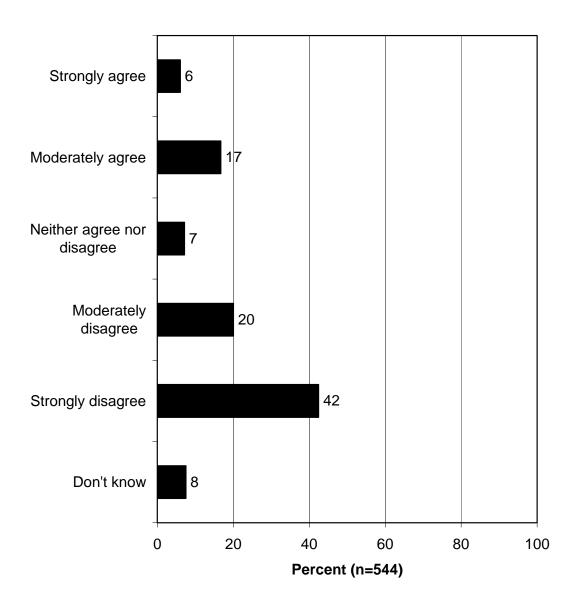
Q54. What about knowing that family-run commercial fishing boats can harvest fish sustainably from coastal waters in California? (How important is it to you personally, on a scale of 0 to 10, where 0 is not at all important and 10 is extremely important.)



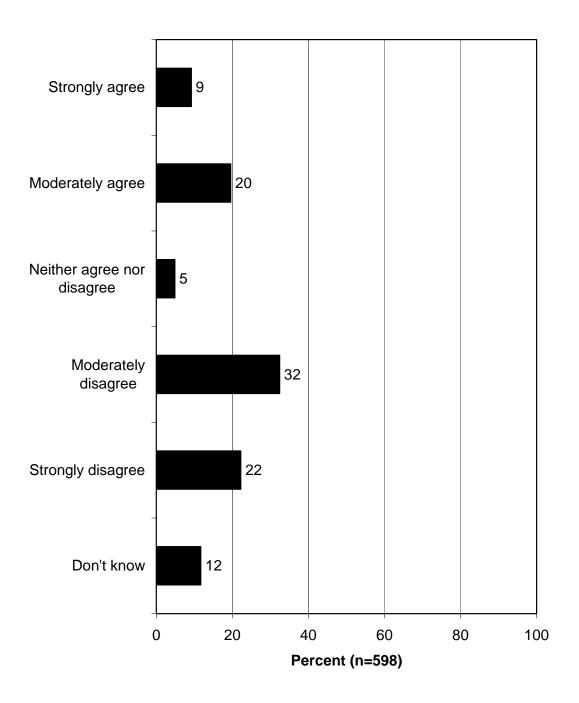
Q55. What about knowing that family-run fishing boats can harvest fish sustainably from coastal waters in California? (How important is it to you personally, on a scale of 0 to 10, where 0 is not at all important and 10 is extremely important.)



Q80. I would be willing to buy seafood from a source other than California, knowing that many family-run commercial fishermen in California waters will no longer be able to make a living and will have to shut down their operations. (Do you agree or disagree with this statement?) (Asked of those who eat seafood at least once a month.)



Q70. Do you agree or disagree that family-run commercial fishing boats in California are harming the ocean's fisheries?



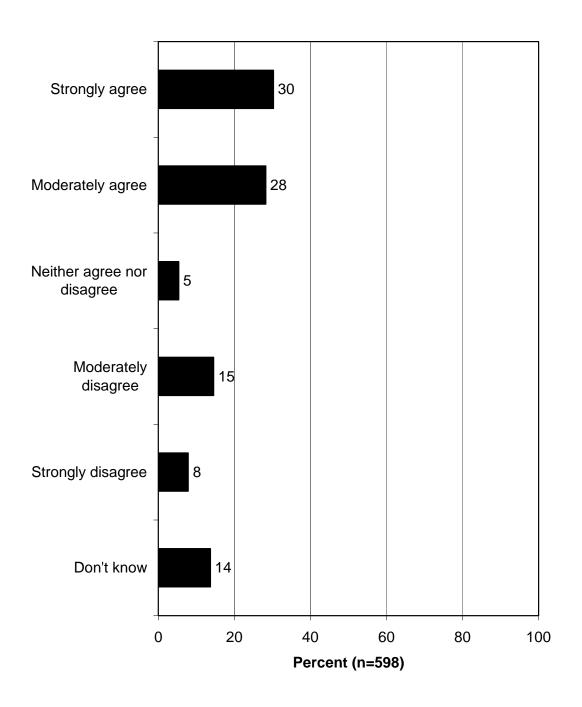
### OPINIONS ON FISH CONSUMPTION AND ITS EFFECTS ON CALIFORNIA'S COASTAL FISHERIES

- > Californians show concern both for having their seafood harvested sustainably as well as for ensuring that California's seafood industry not be unduly harmed. The survey asked seafood consumers (those who typically eat seafood at least once a month) five questions about their opinions on harvesting of seafood. Overwhelming majorities agree that it matters to them that local seafood is harvested sustainably (86% agree) and that imported seafood is harvested sustainably (79% agree). They also overwhelmingly agree (82%) that they would buy California seafood over imported seafood when informed that California currently has more conservation safeguards in place than exist in most other countries. Seafood consumers show concern about California's fishing industry, with less than a majority agreeing that they would be willing to buy their seafood only from international markets to put the highest priority on protecting California's fisheries (37%), and even less than that saying that they would be willing to buy their seafood from non-California sources if they knew that doing so would likely force many family-run commercial fishermen out of business in California (23%). Regarding this last question, 63% disagree that they would be willing to buy their seafood from non-California sources if they knew that doing so would likely force many family-run commercial fishermen out of business in California. (These graphs are shown in the section of this report titled, "Opinions Regarding Utilization, Harvest, and Management of Fisheries.")
- ➤ Interestingly, while the majority of seafood consumers in California agree that large corporate commercial fishing companies in California are harming the ocean's fisheries (59%), less than half that amount agree that people who consume frozen, packaged seafood from large supermarket chains are harming the ocean's fisheries (27%).
- ➤ One question in the survey was asked simply to help determine seafood consumption patterns and for skip-outs in the survey (i.e., to ensure that vegans, who do not consume any animal products, including seafood, were not asked questions about seafood consumption behaviors and opinions on seafood consumption). The overwhelming majority of Californians (91%) are not vegetarian, while 5% are vegetarian but not vegan, and 3% are vegan. Those who are

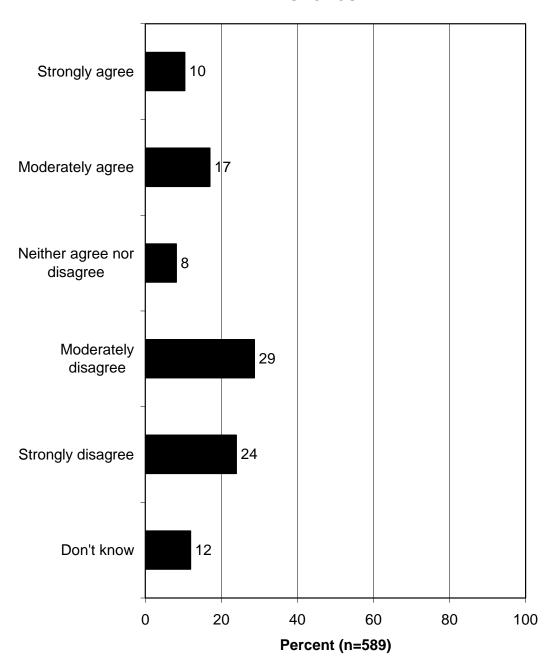
not vegan were asked how often they purchase seafood, with the large majority of them (57% of non-vegans) consuming seafood at least once a week. Interestingly, in a follow-up question, half of those who consume seafood do not know if any of the seafood they consume is harvested in California's waters; 38% indicated that some of the seafood is harvested in California's waters.

➤ When asked to name commercially fished species off the coast of California, respondents most commonly named salmon (34%), tuna (28%), halibut (16%), and bass (13%). Note that 40% could not name a species. In a follow-up question asking if any of the named species is in trouble, salmon, tuna, and abalone are most commonly named. (These graphs are shown in the section of this report titled, "Concerns Regarding Commercial Fishing in California.")

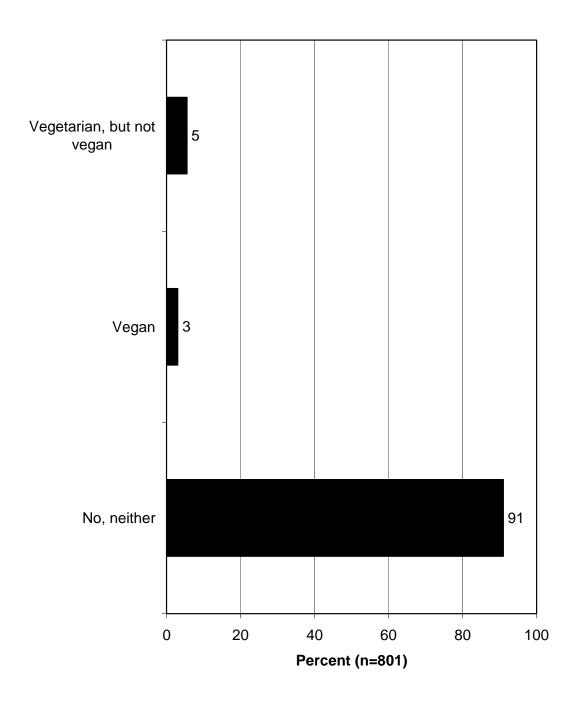
Q68. Do you agree or disagree that large corporate commercial fishing companies in California are harming the ocean's fisheries?



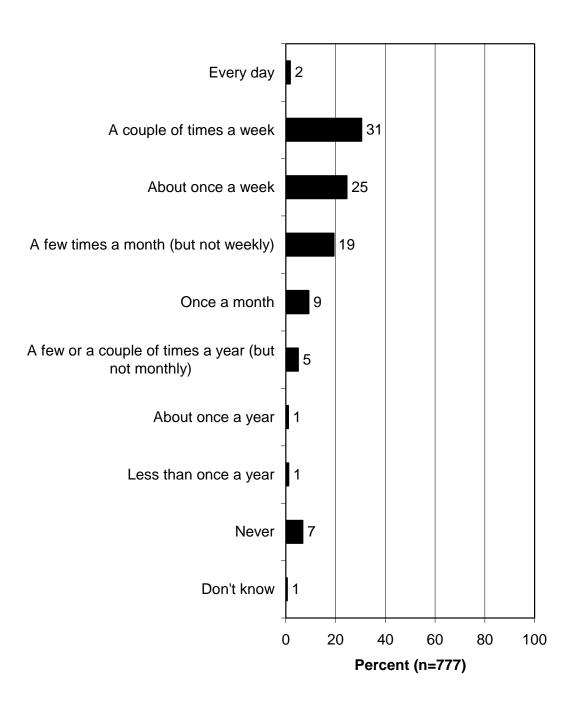
Q71. Do you agree or disagree that people who consume frozen, packaged seafood from large supermarket chains are harming the ocean's fisheries?



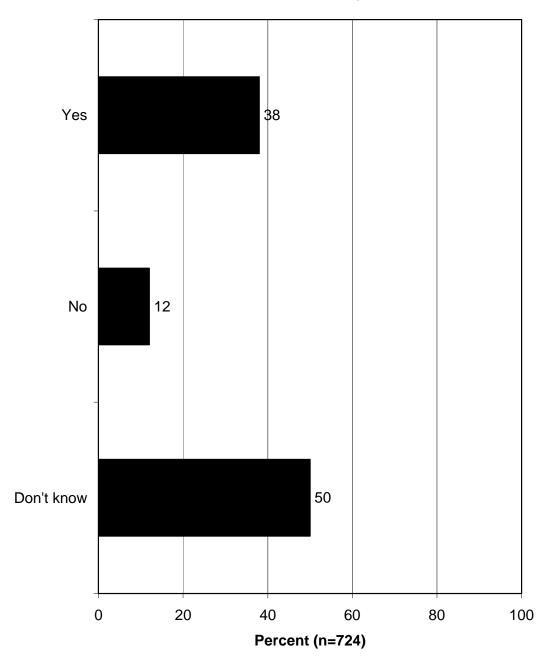
### Q72. Are you a vegetarian or vegan?



# Q73. How often do you consume seafood? Would you say... (Asked of those who are not vegan.)



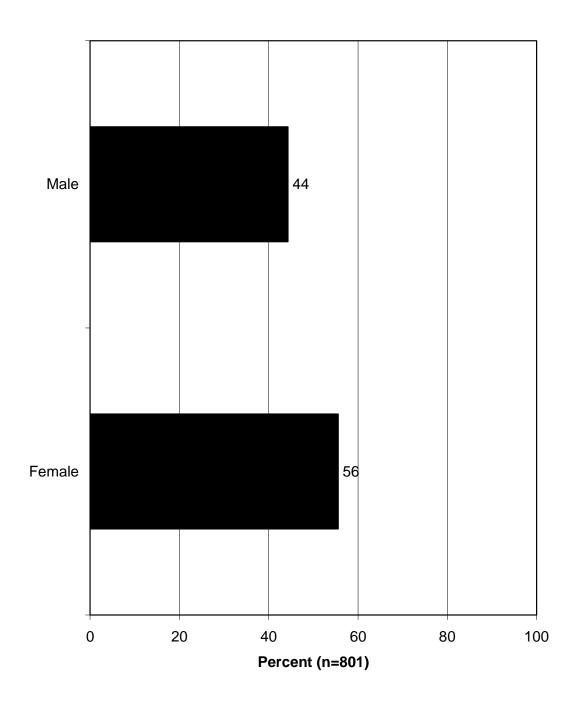
Q74. Is any of the seafood you consume harvested in California? (or do you not know?) (Asked of those who are not vegan and who consume seafood.)



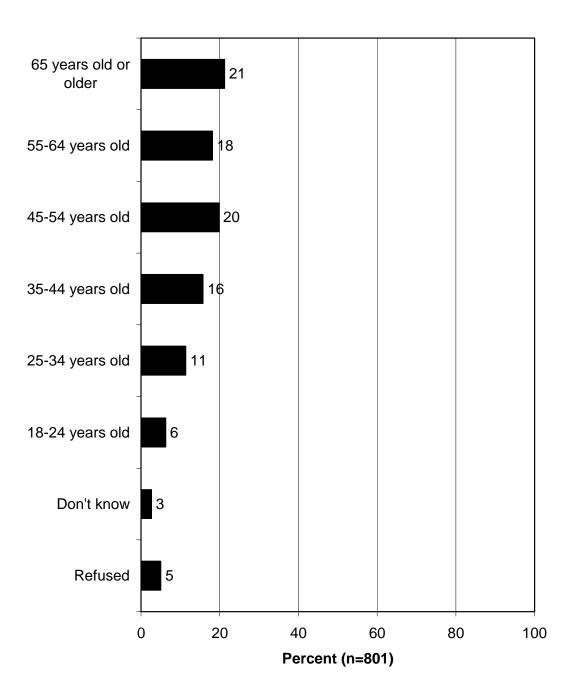
# DEMOGRAPHIC DATA AND MEMBERSHIP IN SPORTSMEN, CONSERVATION, OF FISHERIES-RELATED ORGANIZATIONS

- ➤ The sample was fairly well split between male and female.
- The ages of respondents are shown, fairly well distributed among the age categories.
- ➤ The years that Californians have lived in California is shown; the pattern follows a bell curve.
- ➤ While two-thirds (66%) of Californians do not have children living at home with them, 14% have one child at home, 11% have two children, and 5% have three or more children living at home.
- Ethnic backgrounds are shown.
- Counties of residence are shown; Los Angeles County has the most respondents, followed by San Diego and Orange Counties.
- ➤ Educational attainment of respondents is shown. The majority (72%) have taken some college or trade school courses, and 43% have a Bachelor's degree (with or without a higher degree).
- > Occupations of respondents are shown.
- ➤ Household incomes of respondents are shown.
- ➤ While most Californians surveyed do not belong to any sportsmen's, conservation, environmental, or commercial fishing organizations, 5% do belong to one or more such organizations. The most common organizations are the Sierra Club and Ducks Unlimited.

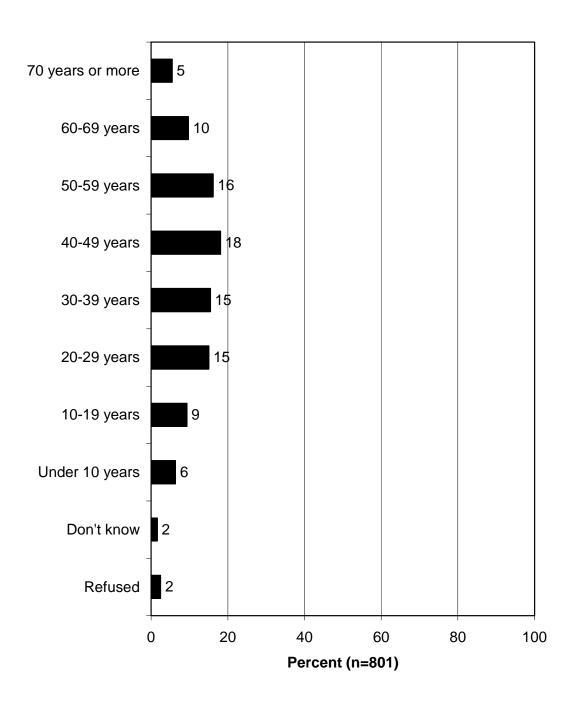
Q132. Respondent's gender (not asked, but observed by interviewer).



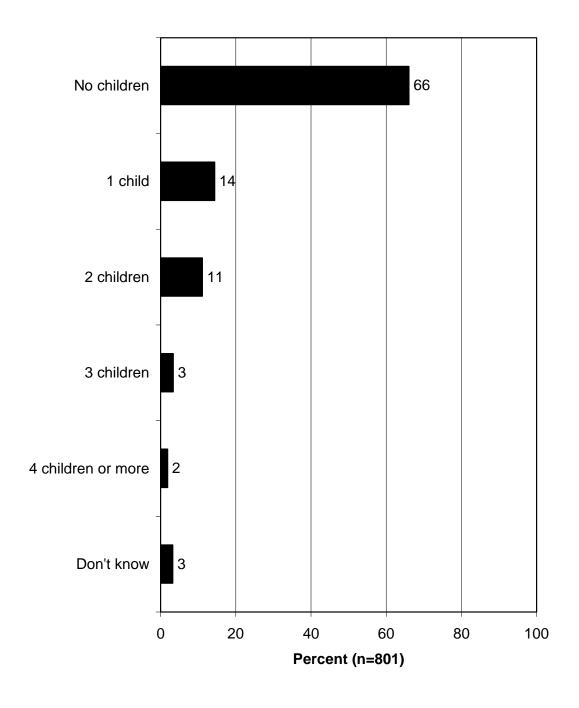
Q126. May I ask your age?



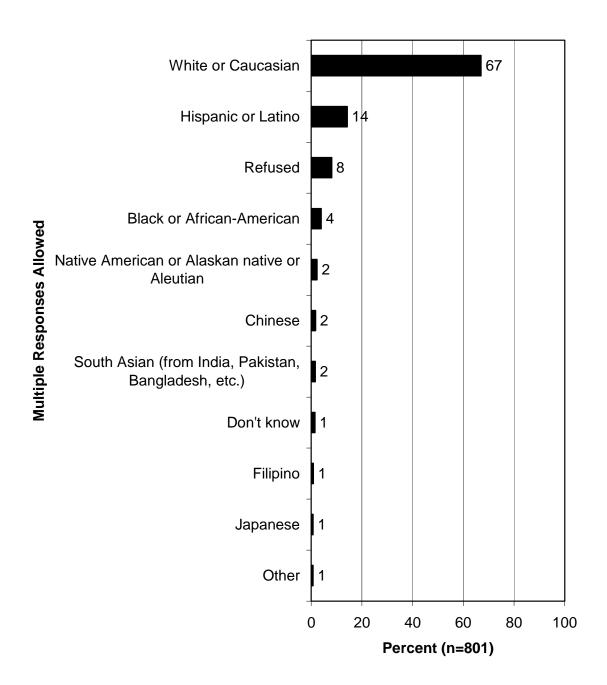
Q112. How many years have you lived in California?



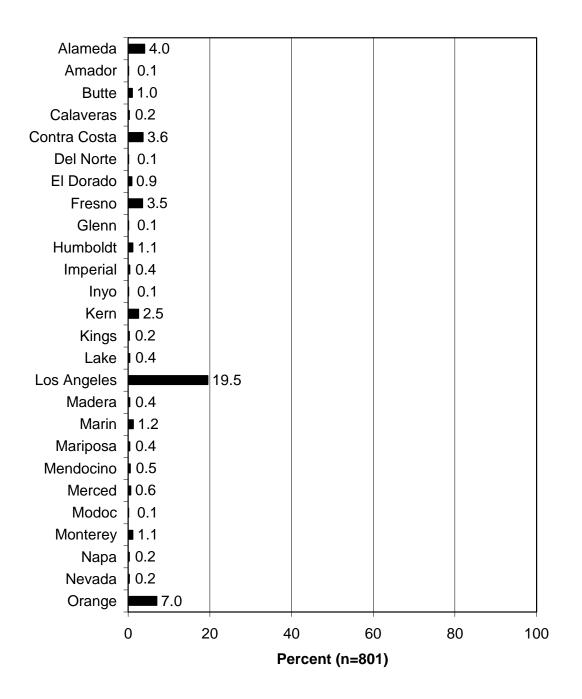
Q121. Do you have any children under 18 living at home?



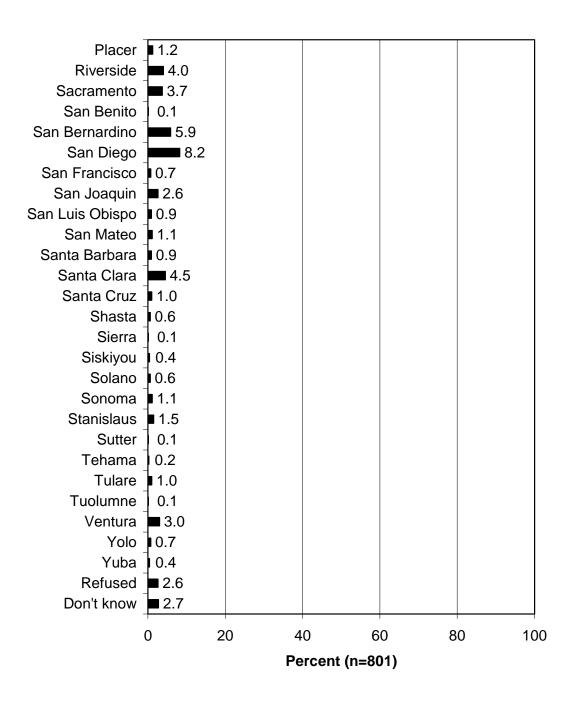
Q124. What races or ethnic background do you consider yourself?



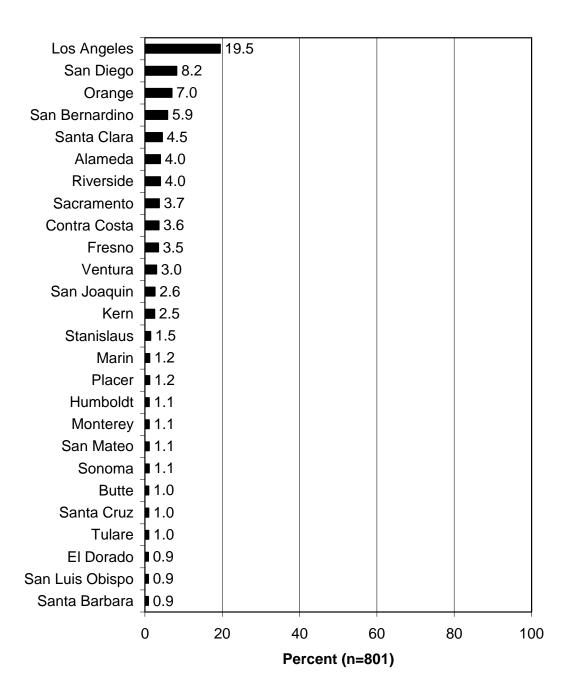
Q115. What is your county of residence? (Part 1, sorted alphabetically.)



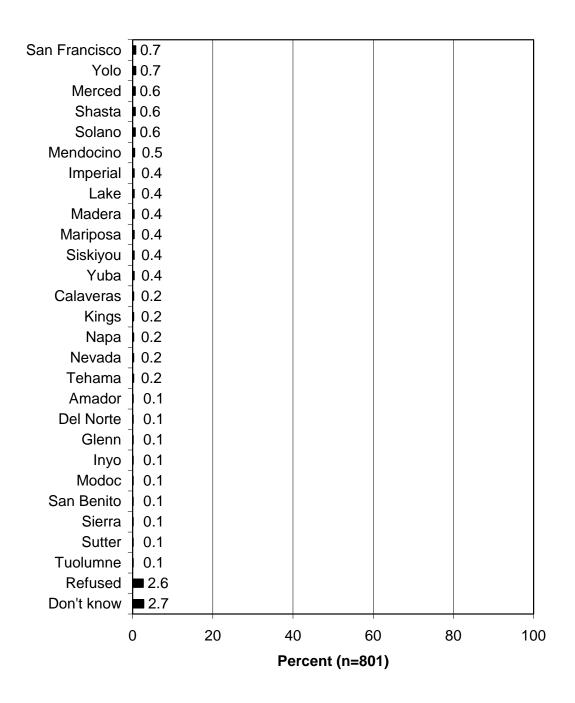
## Q115. What is your county of residence? (Part 2, sorted alphabetically.)



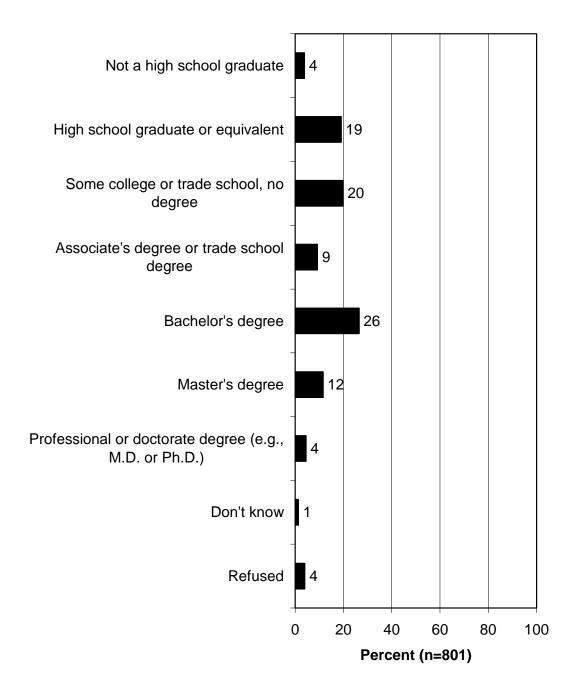
Q115. What is your county of residence? (Part 1, sorted by percentage.)



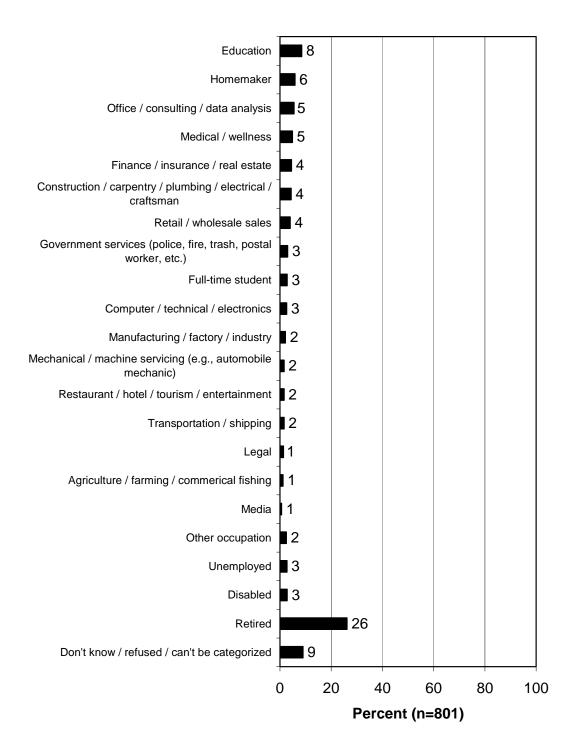
# Q115. What is your county of residence? (Part 2, sorted by percentage.)



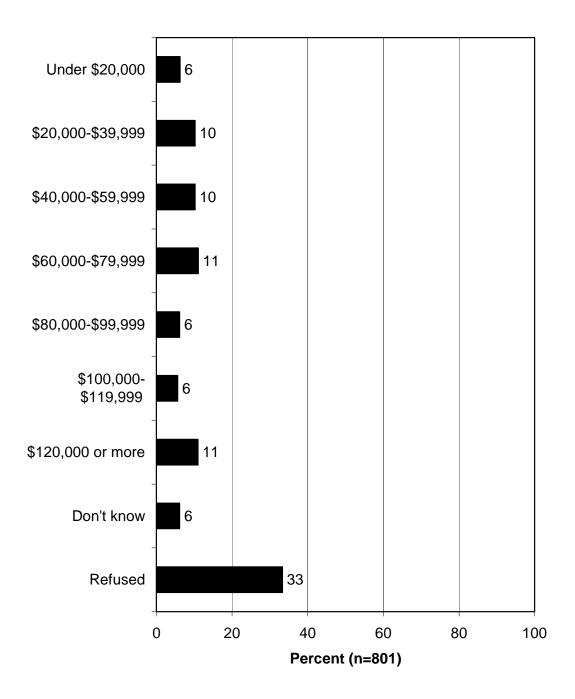
Q116. What is the highest level of education you have completed?



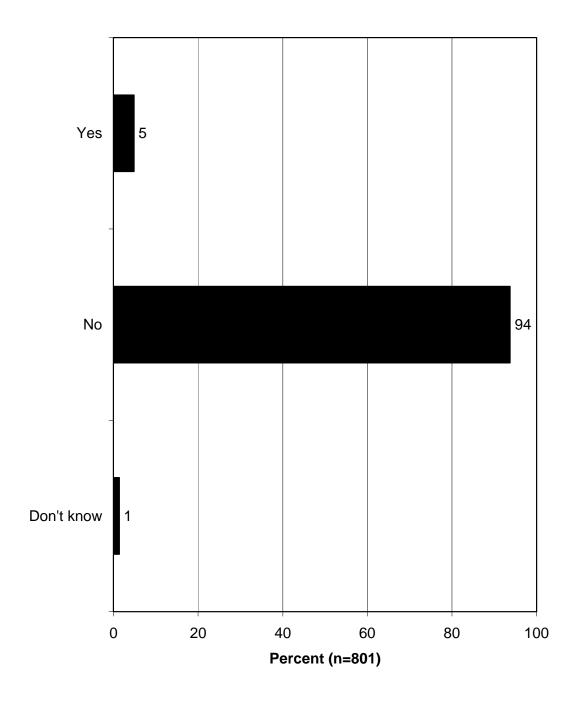
### Q117/118. Respondent's occupation.



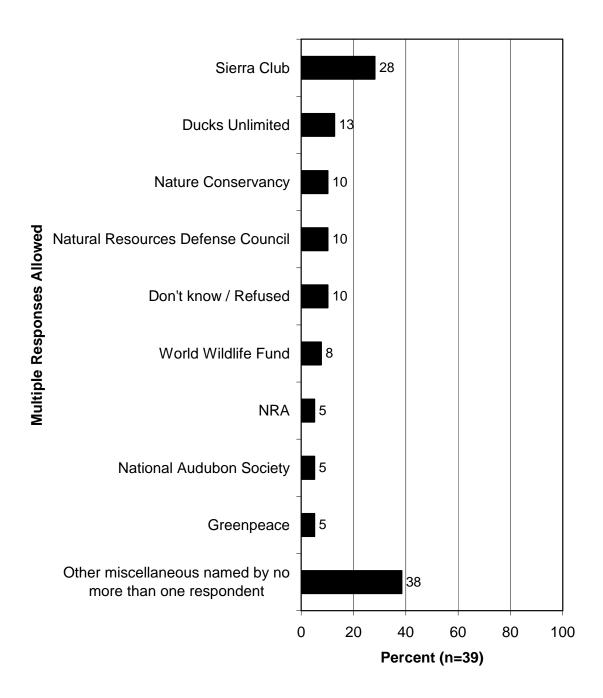
Q120. Which of these categories best describes your total household income before taxes last year?



Q109. Do you belong to any sportsmen's, conservation, environmental, or commercial fishing organizations?



Q110. Which sportsmen's, conservation, environmental, or commercial fishing organizations do you belong to? (Asked of those who belong to an organization.)



#### ADDITIONAL COMMENTS

Q130. That's the end of the survey. Thanks for your time and cooperation. If you have any additional comments, I can record them here.

The oceans are real fragile and part of the ecosystem of the planet. If you see an area where fishing is depleting the species, then there is a problem. Everyone should take their lumps like the construction industry.

I am opposed to having genetically altered fish mixing with natural, organic fish.

The survey should say if you are against commercial fishing, if we can deduct their fishing by a certain percent. We shouldn't take it out completely.

More protection for the entire world; we have to conserve.

I do not approve of fish farming in the commercial industry.

Fishing licenses cost too much.

They teach bad social issues in school. Environmental charges make for more taxes but don't help the environment. This just increases the taxes. Large corporations need to clean up the messes

I think the best thing the state could do for charter boat businesses and small family-run boats is to not force them out of business with all kinds of red tape and requirements.

There should be restrictions on recreational fishing, but fishing for food is okay.

Fisheries must be preserved long-term. Hopefully restrictions could be temporary and retraining would be offered to displaced commercial fishermen. Stop pollution and save fishing.

The idea that the government is going to restrict something is preposterous. These restrictions are stupid. We need to stop foreign ships.

Take care of the fish.

The cost of recreational fishing is too much.

Endangered fish should be in TV ads, and why they are endangered.

I care about the environment, and I think if it is harming the environment we need to start to protect it; I have a daughter and would like for her to see what we have.

Where is the nuclear waste dumped?

My husband and son both do catch-and-release, enjoy fishing.

Put restrictions on sewer, water, and power plants that pollute the ocean.

Due to legislation, creating a tax for corporate fishing, they will be restocking the waters. I think that they need to restock the waters and restock them properly including food sources and habitat, not throwing them in haphazardly.

Questions regarding foreign and frozen seafood: my answer depends on whether the fisheries involved are sustainable. Also, my answer is that fishing should be banned only if the ban will help fisheries recover. Cure the cause.

Government should subsidize commercial fishermen when fisheries decline.

I want to protect the oceans. A little fishing is okay; limit, but don't ban.

We should also reduce the human population; sustainable population.

Instead of focusing on the fish populations, we should also assess the health of the fish in general.

If necessary to health of species, I support restrictions on fishing, but I hate to think of small, family-run commercial boats being put out of business if that can be avoided.

Dams being built on rivers where salmon are trying to reproduce needs to stop.

Fish farms are what are endangering the fish population of the whole world.

I feel for small independent men trying to make a living, and I think they should be able to. Commercial fishing boats push them out of business.

Foreign fishing is harmful to the coastal ocean and to proper fish management.

Balance with care to the restrictions on the fisheries. I do not want the government having total control.

Protect the otters; better irrigation patterns should be in place to prevent polluted runoff from getting to the ocean.

Drag fishing is extremely destructive; I want only hook fishing. True family-run operations are important to keep.

I am concerned about sharks and dolphins being caught in nets and mutilated from that.

I feel that oil dumping harms fisheries. Small fisheries need to survive.

I support small fishermen in California to the degree that the populations of fish will support them.

I favor protecting commercial fishing if the fishing is sustainable.

I think people should be allowed to fish; however, the fish should come first.

This should be determined by scientists, not politicians. I'd rather see restrictions (like catch limits) rather than a total ban on fishing unless absolutely necessary.

There is too much foreign fishing allowed. Can't control migration, so they can just be fished in other states. Control pollution, restore balance.

I get most of the fish I eat from friends out of Alaska or Mexico.

I'd really need more information to answer policy questions, but generally I oppose absolute bans on fishing unless they're absolutely, scientifically necessary.

Pollution is the worst hazard out of all the hazards because it affects people as well. Overfishing is bad too.

I don't check the packages of the seafood I buy.

I'm going to go look up more about California fisheries.

I think anything for the environment is good.

Pollution includes mercury which can kill you. Family-owned commercial fishing (family industries) are important to California.

Hard to protect family-owned businesses and the environment. I would stop eating seafood if it cannot be harvested sustainably.

The ocean is not being supervised and needs more protection. Stronger supervision on family-run boats. I buy Alaska salmon.

I think the state is getting too tight with the restrictions. We should be more concerned about the pollution. They need better sewers and less pollution.

We can't fish any more than 140 feet deep. The bigger fish are in the deep sea, and we are not allowed to do that anymore.

I live in San Pedro. Pitiful what is being done to the small fisherman in this area due to over regulation. I am not in the business, have just seen it. It is not right what is happening to people.

Individual family-owned commercial boats are not a problem; large fleets are a problem.

I really don't know anything about commercial fishing or any of these things. I think qualified scientists should decide about bans and limits, not me.

"Ban" is such a harsh word; limiting would be more appropriate.

We should strive for sustainable fisheries; any restraint should be applied equally to commercial and family businesses. There should be a limit to amount of fish taken. I am beginning to be quite concerned about this issue.

Overall, I don't have a problem with fishing, as long as it is done in a sustainable manner.

I favor legislation to keep businesses going, both commercial and family-run.

There needs to be international conservation standards from Japan and Russia, who overfish California waters.

Require replenishing and non-polluting methods.

I am active with Surfriders and am concerned with the pollution of the ocean. It is okay for the chartered boats to go fishing for the public.

We need to take desperate measures to control commercial fishing and save the ocean and the fish until they recover.

I think they need more regulations and more enforcement of those regulations.

I think these are important questions.

Some answers depend on who decides if the fisheries are in danger and if they really are in danger. Bans on fishing should be equal for all.

It's important that people abide by fishing rules; people should practice conservation.

I'm a great believer in moderation, so unless banning fishing altogether is necessary to save species, I prefer scientific regulation and limits.

There need to be more restrictions on wildlife, habitat, fish, and the environment.

Find another way to bring oil to land; find a way to produce oil on land. I worry about the dirtiness of water and the oil spills that are causing pollution.

I don't like sport fishing or killing anything.

ATVs and snowmobiles are threatening wildlife and habitat; there needs to be restrictions on foreign (Japanese) companies that overfish California species.

If fish are declining, scientists should find out why and correct it, but fishing shouldn't be totally banned unless it's the reason for the decline.

I believe there needs to be moderate considerations to areas that are overfished, but not enough to run businesses underground.

Restrictions should have a scientific basis and should be regularly reviewed given the cyclical nature of many fisheries.

Money rules; corporations will do what they want to.

Commercial fishermen respect waters; commercial fishermen can regulate themselves.

Americans need omega 3 fish oil; we need to consume more fish. We shouldn't put our own fisheries out of business. We should be patriotic and buy from California. The human body is part of the environment.

The health of family-run fishing boats should be put before corporate ones.

I would not like to see family commercial fisherman put out of business. Large commercial fishermen should be reduced to their lowest levels first. Banning fishing would depend on how long the ban lasts.

I think the commercial fishing industry cares less whether the waters are depleted because they can go fish other places. I also think that family-run operations are more careful because their livelihood depends on it.

I think limiting is fine, but don't think it should be too limited because of ruining livelihoods; should have some limits for environmental protection.

The problem of overfishing is due partly to overpopulation of California.

I think it is important to take care of our environment in a sustainable way.

I grew up in Maine and know about trouble small fisherman have staying in business; pollution and water (industry) are the problems, not the commercial fishermen. Watch coastal waters for foreign encroachment, watch environmental pollution (industry related).

Banning fishing depends on how long; I wouldn't want to put anyone out of work.

A lot of good laws started off okay but went too far; most are too extreme.

Commercial fishing should be looked at individually as to how much damage they do.

If I knew that California fish contained no mercury (or less than other sources), I'd look for locally caught fish.

I've never been so ill-prepared for a survey, and there should be some literature distributed about this, but you have to worry about bias. I don't want anyone to go out of business, but I'm worried about ecology too.

Some bays are cleaner than others.

A 3-4 year moratorium to help fisheries recover makes sense, but I'd hate to see the family boats put out of generational traditions. Restriction vs. bans? Stop poachers.

I love fish. I think pollution is a bigger threat than small-scale fishing.

Global warming needs government attention.

Stop the big, foreign commercial boats.

They need to give the fish time to replenish themselves. You can't take and take unrestricted.

Recreational fishing is okay, but I don't do it.

Fishing is part of my cultural and religious tradition, and I'd hate to see it banned, but I think the overall health of the ocean and fisheries is more important than commerce or sport or even wonderful family heritage.

I am against recreational/sport hunting and fishing—it kills and uses tools to make the animals defenseless. It is more important to look out for small businesses rather than corporate industries that have taken over; they take away from American jobs.

#### **ABOUT RESPONSIVE MANAGEMENT**

Responsive Management is a nationally recognized public opinion and attitude survey research firm specializing in natural resource and outdoor recreation issues. Its mission is to help natural resource and outdoor recreation agencies and organizations better understand and work with their constituents, customers, and the public.

Utilizing its in-house, full-service, computer-assisted telephone and mail survey center with 45 professional interviewers, Responsive Management has conducted more than 1,000 telephone surveys, mail surveys, personal interviews, and focus groups, as well as numerous marketing and communications plans, need assessments, and program evaluations on natural resource and outdoor recreation issues.

Clients include most of the federal and state natural resource, outdoor recreation, and environmental agencies, and most of the top conservation organizations. Responsive Management also collects attitude and opinion data for many of the nation's top universities, including the University of Southern California, Virginia Tech, Colorado State University, Auburn, Texas Tech, the University of California—Davis, Michigan State University, the University of Florida, North Carolina State University, Penn State, West Virginia University, and others.

Among the wide range of work Responsive Management has completed during the past 20 years are studies on how the general population values natural resources and outdoor recreation, and their opinions on and attitudes toward an array of natural resource-related issues. Responsive Management has conducted dozens of studies of selected groups of outdoor recreationists, including anglers, boaters, hunters, wildlife watchers, birdwatchers, park visitors, historic site visitors, hikers, and campers, as well as selected groups within the general population, such as landowners, farmers, urban and rural residents, women, senior citizens, children, Hispanics, Asians, and African-Americans. Responsive Management has conducted studies on environmental education, endangered species, waterfowl, wetlands, water quality, and the reintroduction of numerous species such as wolves, grizzly bears, the California condor, and the Florida panther.

Responsive Management has conducted research on numerous natural resource ballot initiatives and referenda and helped agencies and organizations find alternative funding and increase their memberships and donations. Responsive Management has conducted major agency and organizational program needs assessments and helped develop more effective programs based upon a solid foundation of fact. Responsive Management has developed Web sites for natural resource organizations, conducted training workshops on the human dimensions of natural resources, and presented numerous studies each year in presentations and as keynote speakers at major natural resource, outdoor recreation, conservation, and environmental conferences and meetings.

Responsive Management has conducted research on public attitudes toward natural resources and outdoor recreation in almost every state in the United States, as well as in Canada, Australia, the United Kingdom, France, Germany, and Japan. Responsive Management routinely conducts surveys in Spanish and has also conducted surveys and focus groups in Chinese, Korean, Japanese, and Vietnamese.

Responsive Management's research has been featured in most of the nation's major media, including CNN's *Crossfire*, ESPN, *The Washington Post*, *The Washington Times*, *The New York Times*, *Newsweek*, *The Wall Street Journal*, and on the front page of *USA Today*.

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