



Public perceptions of the *Deepwater Horizon* Oil Spill: Continuing Distrust of Gulf Coast Fisheries



Sean Anderson (e-mail: sean.anderson@csuci.edu)

Environmental Science and Resource Management Program, California State University Channel Islands, Camarillo, CA

Abstract:

Public perception of resource injury and contamination can have strong influences upon subsequent consumer behavior, particularly when it comes to the perceived safety of food. To begin to explore the effect of the *Deepwater Horizon* (DWH) blowout upon perceptions of Gulf Coast seafood outside of the Gulf, I modified an ongoing, annual public opinion polling instrument, the *California State University Channel Islands (CSUCI) Survey of Public Opinion of Coastal Resources*, in Fall 2010. Lack of transparency during the DWH response, the ensuing media firestorm about potential environmental impacts, and temporary closure of one-third of federal waters in the Gulf to fishing seem to have been behind 75% of the public feeling Gulf of Mexico seafood was definitely or potentially unsafe by late September of 2010. This hesitancy was consistent with other national polls. Surprisingly, I have found extremely little change in that high distrust of Gulf seafood in subsequent surveys in 2011 and 2012. The subset of the public that is discerning about their seafood sources continues to see Gulf seafood as something to be avoided and just slightly better than seafood from ostensibly irradiated Japanese waters or *caveat emptor* food processors in China. This perception of ecosystem injury may have long-term consequences for the profitability of Gulf fisheries.

The CSUCI Survey of Public Opinion:

The CSUCI *Survey of Public Opinion of Coastal Resources* has sampled public perceptions annually for the past eight years (700 – 1,500 polls conducted each fall) to better understand where the public currently stands on various issues and to provide a long-term baseline with which to compare the efficacy of various future management efforts. CSUCI's *Coastal and Marine Management* (ESRM 462) students sample public perceptions via an instrument with (as of 2012) 49 questions that span personal behaviors, understanding of existing management efforts, and environmental concerns. Unpaid respondents typically complete the survey within 14-17 minutes, after which student surveyors are encouraged to engage with respondents to provide a qualitative context to survey results. While data from this survey have increasingly been used by managers in recent years, it was created as and remains an educational exercise. As such, when relevant coastal or marine issues appear in the news (e.g. DWH), we modify some questions to sample opinions about that particular event. An recently published overview of a sub-set of the first six years of data (Anderson 2012) includes a more detailed overview and methods.

Overall Project Goals:

- sample coastal residents' understanding & valuation
- expose students to a broad cross section of public opinion
- establish long-term baseline of public opinion
- document perceptions of coastal restoration & fisheries management efforts

Methods:

- annual fall (Sept-Oct) sampling since 2005
- random, face-to-face encounters in public spaces (web version in trials)
- 25 surveys max conducted at any given location in any given year
- poll conducted in English (Spanish version in development)
- participants were volunteers, contributed no unique identifying info
- estimated overall sampling error for questions reported here $\pm 5\%$

2012 sampled population (means ± 1 SD):

- 1,436 respondents
- resident in their current Zip Code: 13.8 ± 11.75 years
- age: 36.2 ± 15.2 (ranging from 12 to 90) years old
- even distribution of household incomes
- 70% reported voting regularly
- biased towards college graduates: 51% having a college degree



context: perceptions of fisheries

data pooled across all survey years

Q: Threats to fisheries (mean rank, 1 = greatest threat, 4 = least threat)?

pollut'n: 1.9 hab.dest: 3.0 overharv: 3.2 \uparrow temps: 3.6 acidif'n: 3.6 NIS: 4.2

Q: Are our fisheries healthier now than in 1950s?

yes: 10% **no: 54%** unsure: 36%

Q: Have you heard of these fishery regulations? (could select multiple answers)

season: 75% size limit: 76% gear restrictions: 33% MPAs: 37%

\therefore general feeling of ineffective management, \downarrow condition

context: general DWH perceptions

data pooled across all survey years

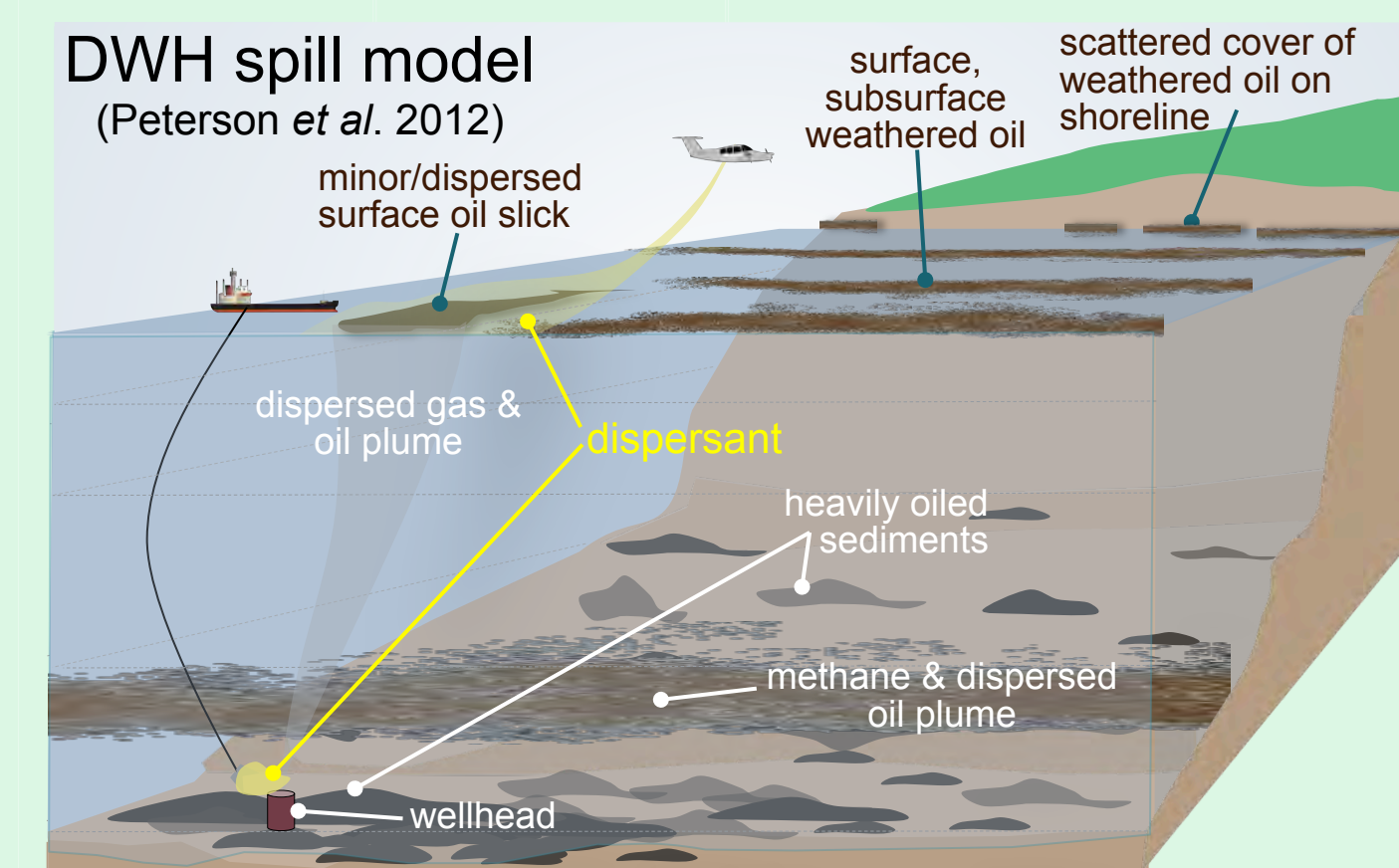
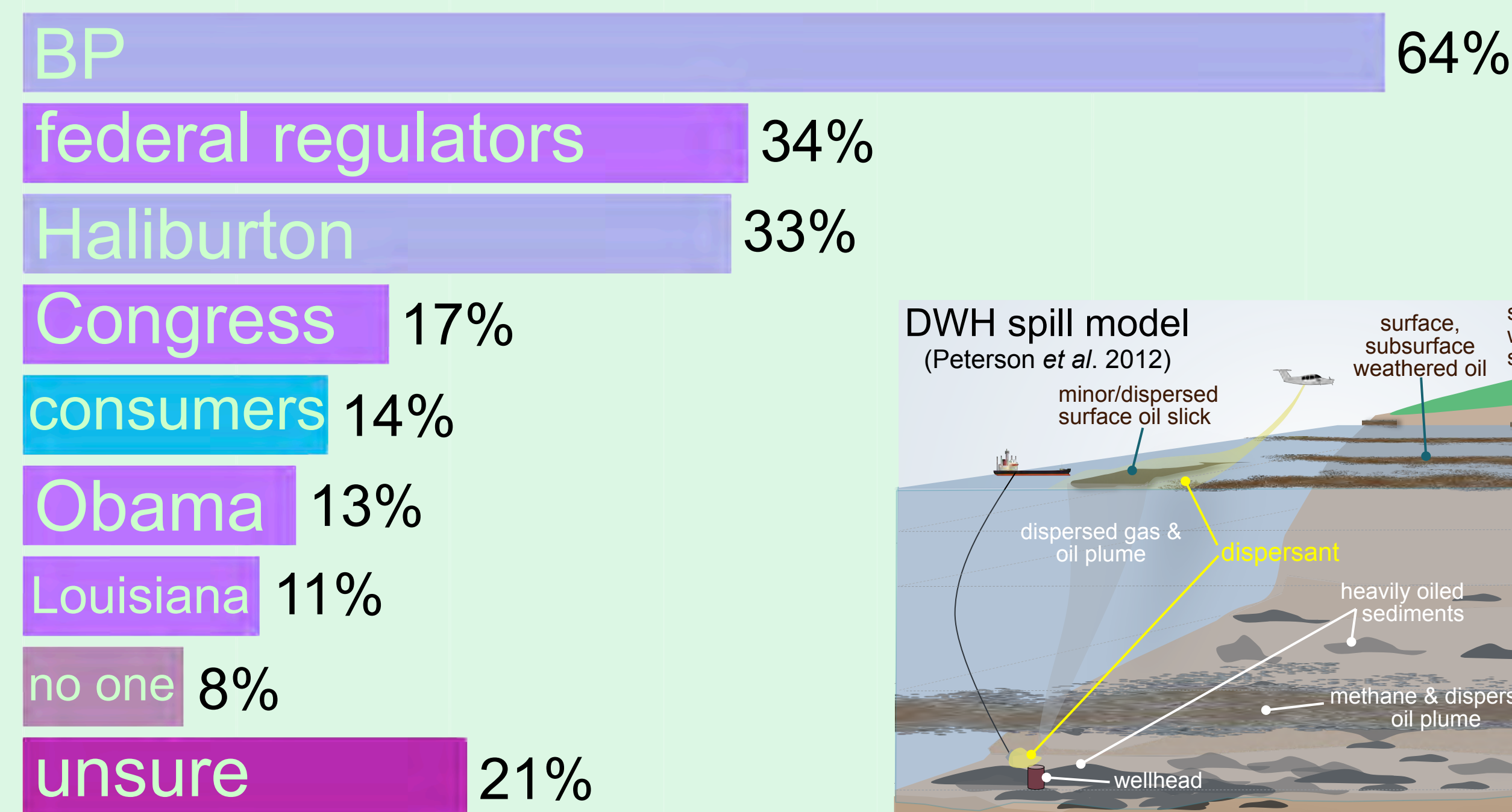
Q: How do you characterize the joint response to the DWH blowout?

excellent: 1% good: 9% neutral: 16% bad: 26% **horrid: 27%** unsure: 21%

Q: Attitude towards offshore drilling after the DWH blowout?

\downarrow **supportive: 47%** no change: 33% \uparrow supportive: 5% unsure: 15%

Q: Who is primarily to blame for the DWH blowout? (could select multiple answers)



\therefore strong negative view of the spill and many of actors/responses

② consumers' interest in seafood

Fall 2012 data

Q: How often do you ask about the source of your seafood?

always: 10% occasionally: 18% rarely: 21%

never: 44% unsure or I don't eat seafood: 7%

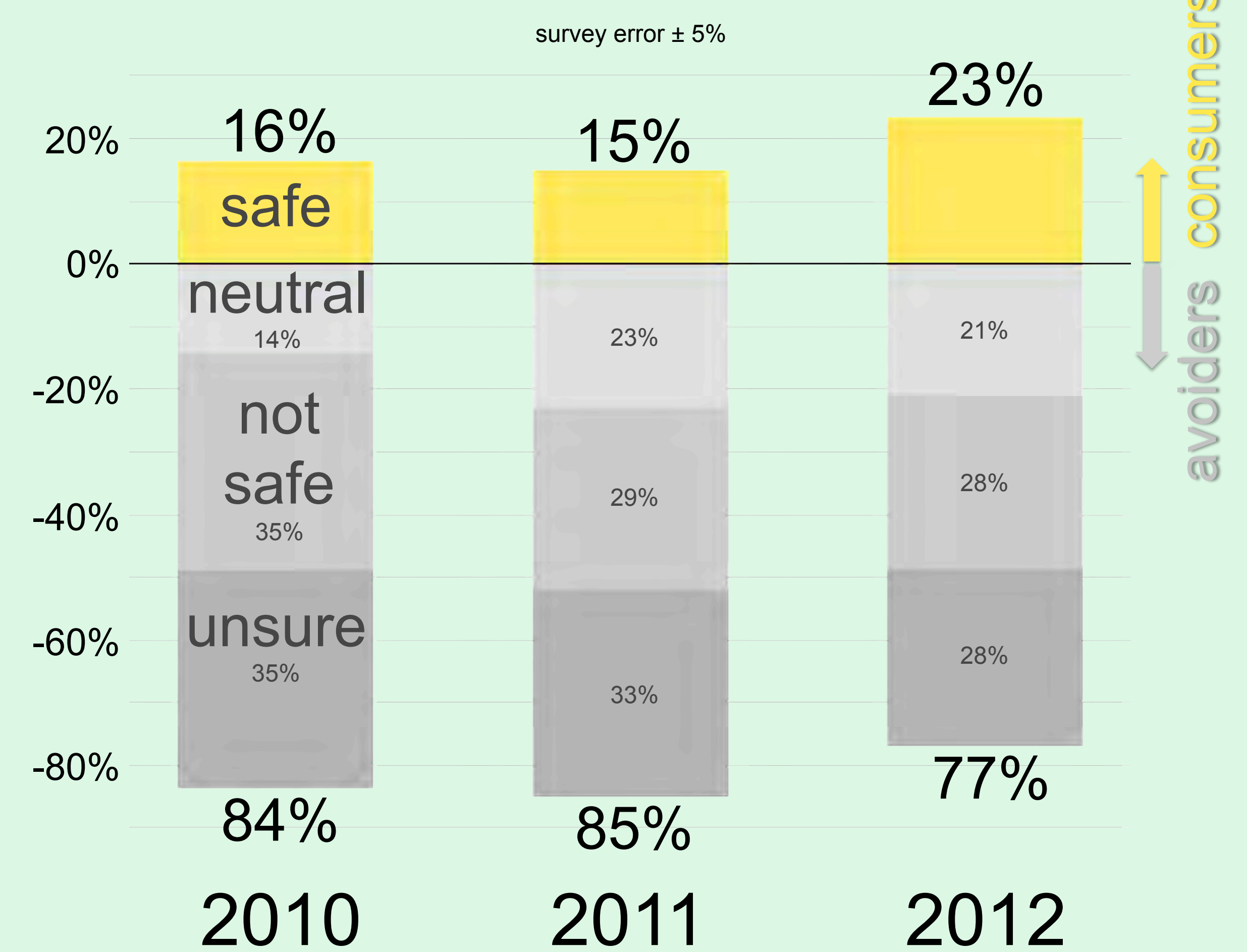
Only 19% of people went fishing within the previous year.

Consumed 5.4 ± 10.4 oz. (mean \pm 1SD) seafood prior week (in 2012).

\therefore increasing separation from source/harvesters of seafood

③ safety of Gulf seafood over time

Fall 2010-2012 Question: Is seafood from the Gulf safe to eat?



Survey Results To Date:

- ① Gulf seafood seen as distinct, worse than other U.S.
- ② In 2012, risk of eating post-DWH Gulf seafood seen as \approx to Chinese or post-Fukushima Japanese seafood
- ③ consumers often disengaged with seafood generally and so have little seafood knowledge or experience to interpret disasters (and \therefore a possibly reduced ability to counter media-induced fears of unsafe seafood)
- ④ public's aversion to seafood from the northern Gulf of Mexico has improved little in 3 years post-DWH

Interim Conclusions:

Public aversion to northern Gulf of Mexico seafood may be partially masked by the lack of attention paid to seafood sourcing generally. However, abundant anecdotal data and personal observations from many states and venues strongly suggests that more discerning consumers (mothers of young children, health conscious athletes, *etc.*) and proprietors with the propensity to purchase/sell premium seafood are still actively avoiding Gulf-harvested items. It appears likely the associated economic impacts of DWH upon Gulf coast seafood operations will continue for some time to come.

① risk of Gulf seafood relative to other regions

