



# Idaho Fish Consumption Survey 2013

IDEQ Fish Consumption Survey Sample and  
Questionnaire Design

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# Agenda

Goals and objectives

The process

Operational definitions

Demographics

Statistical confidence

Implementation alternatives - sample design

Next steps

Questions



# Goals and objectives

- Determine the frequency that Idahoans consume fish
  - Specifically interested in Domestic fish
  - Secondarily market fish
- Determine the mean quantity of fish consumed
  - Specifically the type of fish consumed
    - Whether whole fish or flesh
  - Where sufficient surveys collected correlate consumption by demographics collected
- Perception of respondent suppressed consumption
- Coordinate with tribal surveys with core questions



# Life cycle of a survey

## Measurement



## Representation



# Define the General Population

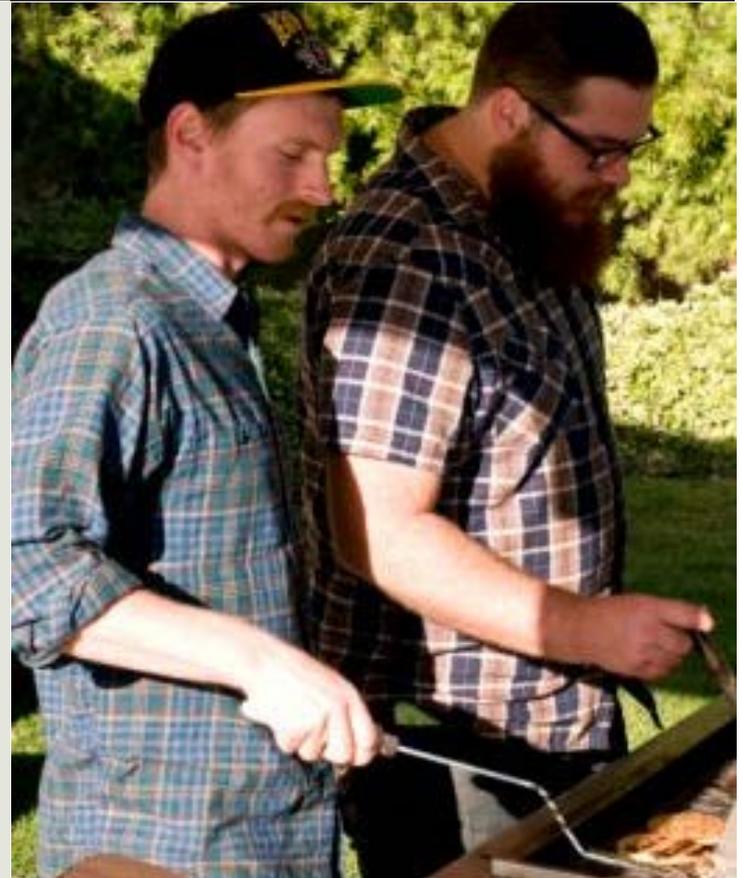
## Definition of a Resident

Household with an Idaho Address

Households are used to collect demographic information

The person answering the phone will have specific questions about their consumption and questions about other residents at the address

If the person answering has not eaten fish within the last year they are labeled a non fish consumer and household labeled as non consumer

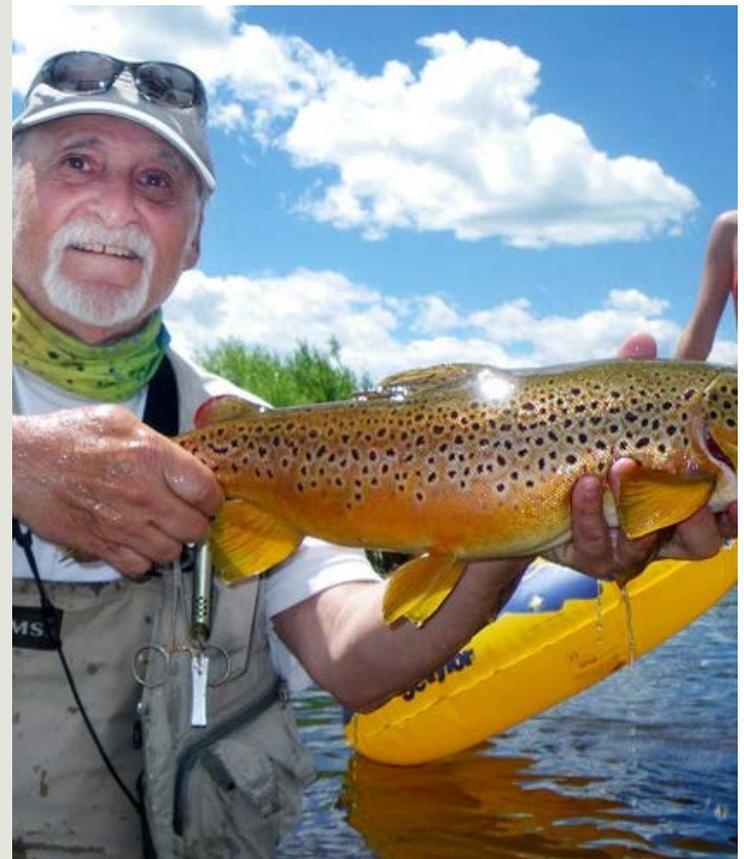


# Define the Angling Population

## Definition of an Idaho Angler (Operational Definition)

**An Angler** is defined as having a current fishing license within the last 12 months

**Not An Angler** is defined as license holder of an out of state permit, catch and release only fisherman, or not purchased a license within the last 12 months.



# Information survey will collect

## Demographics

Gender, age, income, ethnicity, weight

## Frequency of consumption

## Type of fish/shellfish

## Source of fish/shellfish

## Quantity and fish parts of consumption

## Preparation of fish/shellfish

9. What is Person 1's race? Mark  one or more boxes

White  
 Black, African AM, or Negro  
 American Indian or Alaska Native -- Print name of enrolled or principal tribe.

Asian Indian     Japanese     Native Hawaiian  
 Chinese     Korean     Guamanian or Chamorro  
 Filipino     Vietnamese     Samoan  
 Other Asian --- Print race for example, Hmong, Laotian, Thai Pakistani, Cambodian, and so on.     Other Pacific Islander -- Print race for example, Fijian, Tongan, and so on.

Some other race -- Print race.

I R A N I A N - A M E R I C A N

OR

I R A N I A N



# Sample design

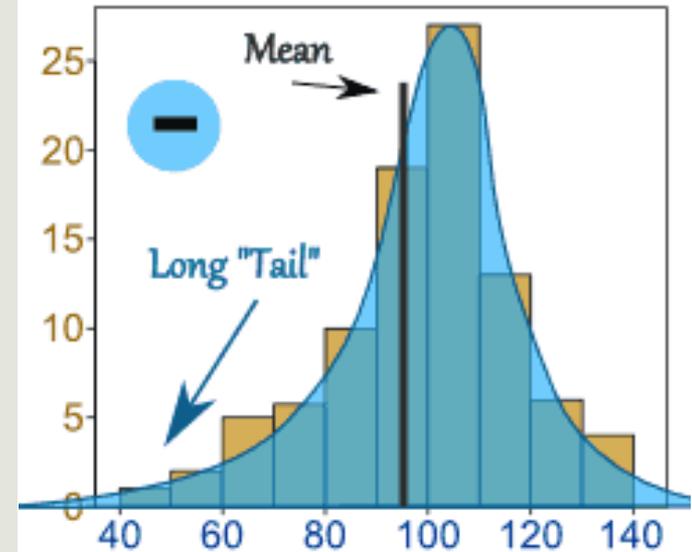
The number of surveys determines the confidence in results.

If the population is normal and desired  $\approx$  a 95 percent confidence that the mean sample is  $\pm 10$  of the actual mean approximately  $\approx 400$  surveys are needed.

If the population is skewed it increases the standard deviation. This in turn increases the sample size if we want to maintain the 95% confidence that the results are within 10% tolerance.

Without a past Idaho survey the population distribution pattern is unknown. Focusing on fish consumers reduces the potential of skewing.

Boise State recommends measuring mean grams per day for adult and children fish consumers.

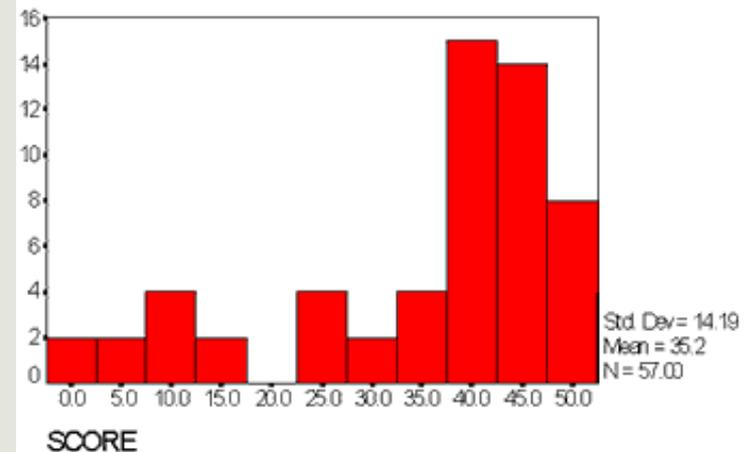


# The statistical confidence interval

The goal is  $\pm 10$  intake of grams per day. Selecting sample size for a 95% confidence level allows that if the actual population is significantly skewed, larger standard deviations, it allows the conclusions to be adjusted to 90% confidence maintaining the  $\pm 10$  tolerance.

## Recommendations

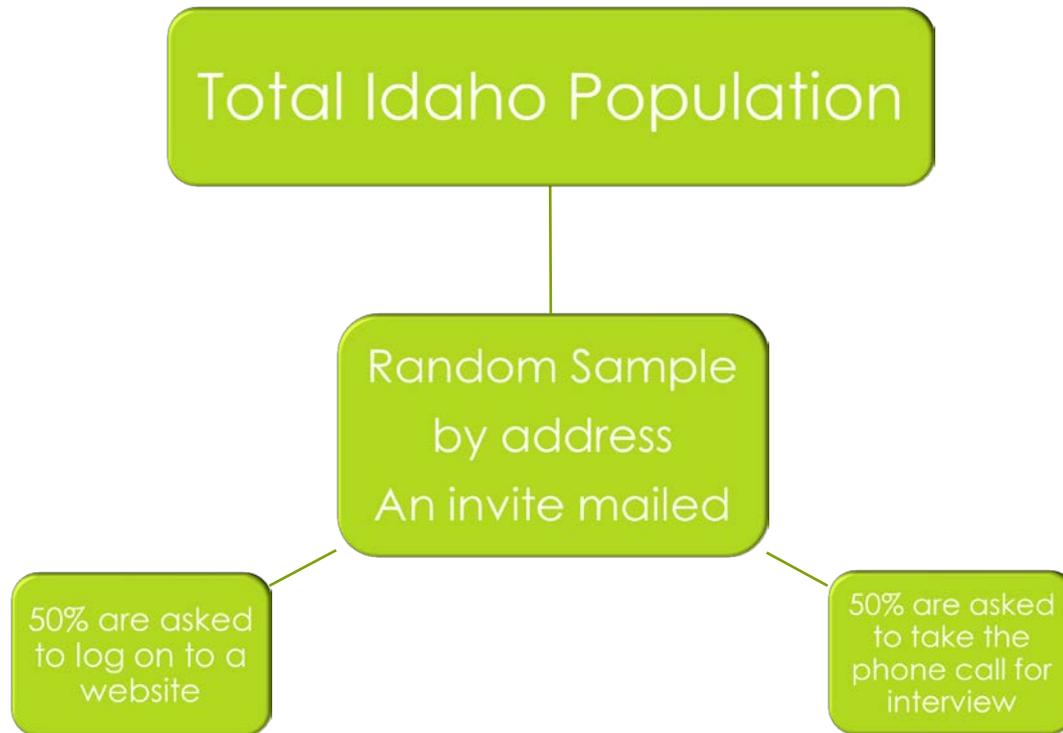
1. General population – Survey 500 households with a goal of 25% households who consume fish
2. Anger population - Survey 250 households



# Survey Implementation alternatives

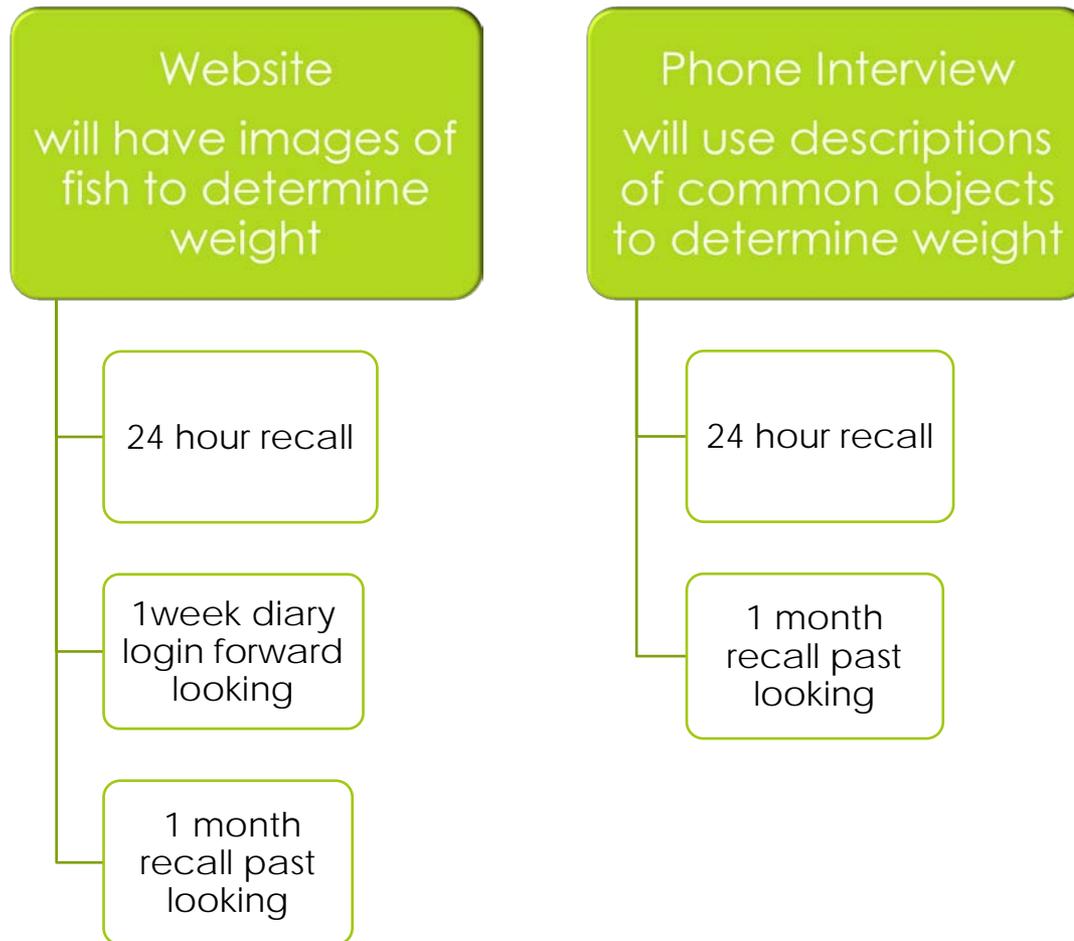
- Creel
- Diary
- Face to Face Interviews
- Telephone
- Mail, internet
- Mixed mail telephone internet





## Recommended sample design

The same design is proposed to be used for both sample populations



## Recall periods solicited

The recall periods are still under discussion These time frames are place holders



# Core questions

Asking the same question will allow for correlation between the two populations

Questions will be determined through collaboration with consultants



# Next Steps

- Develop questionnaire for phone and internet samples
- Work with Implementation consultant on sample selection and beta testing of the questionnaire
- Revise instrument and assist in writing interviewer instructions





# Questions

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