

# Social Science Survey Recommendations

How can I make a high quality survey?



Photo credit: Steve Woo, "Ocean Shores Bounty"



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# Introduction

Surveys are one of the most common social science approaches and methods<sup>i</sup> used to collect social data. According to a 2019 WDFW internal assessment, the agency conducts approximately 240 surveys annually. While the purpose of WDFW surveys may widely vary by program, division, or team, **if the survey instrument is intended to collect social or human data, that survey instrument is considered a social science instrument.** This includes surveys focused on angler preferences, hunter activities, non-angler/hunter recreational behaviors, landowner management practices, boater attitudes, residents' wildlife value orientations, evaluation of education program effectiveness among enrolled participants, and diverse community perspectives, among others. Although surveys seem fairly intuitive and easy to construct, surveys are a scientific method, and like all methods, are informed by a wealth of research on methods (see: Bibliography) and social science ethical considerations.

There are benefits and limitations to using surveys (for more information see: [Guidance on Social Science Research Methods](#)). Surveys also come in different forms and are distributed via different sampling techniques (e.g., intercept, phone, web-based, and mail). If you have decided to use a survey instrument, please use the following guidance information to help craft a high quality survey instrument.

The following sections provide a diverse range of guidance on crafting a survey instrument. The next section outlines best practices for survey creation. This section identifies key best practices associated with surveys (e.g., avoid double-barreled questions) and provides examples (e.g., what not to do and what to do using the same examples). A best practices checklist is subsequently provided to help survey creators evaluate their survey instrument. In order to provide some cross-agency consistency, WDFW recommended demographic questions are also outlined. These demographic questions are agency-approved and went through an extensive vetting process. Lastly, common survey content with examples is provided. This section and its contents are not intended to be a prescriptive survey template; but aimed to illustrate how surveys could look with different survey question types (with examples).

If you would like more information or would like to discuss surveys or other methods, please contact the agency Conservation Social Scientist at: [David.Trimbach@dfw.wa.gov](mailto:David.Trimbach@dfw.wa.gov).



# Survey Best Practices

1. *Avoid complex wording:* Surveys often focus on niche or narrow topics, triggering the surveyor to integrate technical terms and jargon. Unless deemed absolutely necessary and explanations are included, avoid technical terms and jargon. This can be achieved by pre-testing surveys prior to implementation.
  - a. *Examples of complex wording:* Do you approve of good governance principles in wildlife management? What is your sense of place of Puget Sound?
  - b. *Examples that avoid complex wording:* Do you approve of transparent decision making in wildlife management? What is your emotional connection to Puget Sound?
  - c. *Explanation:* The technical or scientific language used in a. (e.g., good governance and sense of place) were broken down into more tangible and accessible language (e.g., transparent decision making and emotional connection) for a broader audience in b.
2. *Avoid double-barreled questions:* A survey question in which two separate ideas are erroneously presented together in one question. This type of question is actually attempting to address two issues and not one, making the response unhelpful if not entirely useless for the purpose of the instrument.
  - a. *Examples of double-barreled questions:* Do you like bird watching and duck hunting? Do you prefer natural shorelines and public access to nearshore areas?
  - b. *Examples that avoid double-barreled questions:* Do you like bird watching? Do you like duck hunting? Do you prefer natural shorelines? Do you prefer public access to nearshore areas?
  - c. *Explanation:* Both examples (a. and b.) include the same topics and content (e.g., bird watching); however, for a., the contents were merged, but for b., the questions were split into individual questions in order to make them easier to respond to and analyze.
3. *Avoid leading questions:* A survey question that suggests a possible answer and/or makes some responses seem more acceptable than others. This type of question demonstrates that the question and surveyor are intentionally guiding the participant to respond a particular way. This will negatively inform the responses collected.
  - a. *Examples of leading questions:* How often do you fish without the license? Do you agree that hunting should be less regulated?
  - b. *Examples that avoid leading questions:* Some WA residents fish without a license. Do you approve or disapprove of residents fishing without a license? Based on the following response options, please share to what degree should hunting be





- c. *Explanation:* In this case, the title was completely removed in order to reduce any sort of prestige bias (note that this can work in positive and negative ways depending on the participant and their current attitude or opinion of the title holder). The question was also restructured in order to include the “statement” or position in question and rearticulated as a different type of question (Likert scale) to gauge the respondent’s perspective more fully via levels of agreement.
- 6. *Address needed knowledge:* Surveys often focus on niche or narrow topics, requiring similar levels of shared respondent knowledge. For example, surveys may ask about specific agency policies; however, respondents’ knowledge of agency policies may widely vary.
  - a. *Example of needed knowledge:* Do you approve of the agency’s policy on orca conservation?
  - b. *Example that avoids needed knowledge:* Please share your level of approval for the following agency policy: policy language included here or link to policy language. Response options: Strongly agree, Agree, Neutral (or Neither fully agree nor disagree), Disagree, Strongly disagree
  - c. *Explanation:* In order to address this potential issue, it is recommended to either: (1) ask a filtering question to determine respondents’ knowledge (e.g., Are you aware of the agency’s policy on orca conservation?) and then ask the key question (e.g., Do you approve of the agency’s policy on orca conservation?); or (2) simply provide an opportunity for a respondent to share their lack of awareness or knowledge of the topic in question.
- 7. *Address shared meanings:* Survey questions may include words or language with varying meanings. Meanings may vary across different groups (e.g., age groups, subcultural groups, and regional groups), so intention and care should be taken to ensure meanings are explicit and shared among potential respondents. One way to address this is to pre-test the survey instrument with potential respondents, including those who may best represent key target demographic groups for the instrument.
  - a. *Example of shared meanings with explanation:* How often have you engaged in outdoor recreation over the last year? In this case, outdoor recreation may have varying meanings among diverse respondents. Outdoor recreation for some may only refer to specific outdoor activities (e.g., fishing and hunting), while for others outdoor recreation may refer to other outdoor activities (e.g., gardening and bird watching). In this instance, a description of what outdoor recreation may be helpful and/or examples of activities.
- 8. *Avoid poor question sequencing:* Survey questions should not be ordered arbitrarily. Survey questions should be intentionally sequenced and reflect a set logical pattern. This allows for flow and ease for the respondent. One type of sequence is funnel sequence, which is a sequence of survey questions that progresses from a very general question to gradually more specific questions. Another type of sequence is an inverted funnel sequence, which is a sequence that starts with more specific questions and moves on to more general questions.





9. *Avoid too much text:* Surveys often include a lot of textual information. This may include too many questions or lengthy questions (e.g., question and response options, including scenario or vignette questions), but also too much textual information associated with the instrument itself (e.g., research statement description, instructions, and contextual information). This can lead to respondent burden, where respondents perceive the instrument to be too stressful, confusing, or time-consuming, and respondent fatigue, which can cause lower-quality responses and higher non-response rates.
10. *Avoid inconsistent summated rating order questions:* Surveys often include summated rating or ranking order questions, also referred to as Likert Response Scale questions. These questions include a continuum or range of rankings as responses. When using such questions ensure that the ratings are consistent throughout the instrument, including the order in which they are presented in the question.
11. *Address survey translation vs. culturally (or community) competent and sensitive content:* Ideally surveys should be made accessible to those who do not use English as their primary language. Often word-for-word survey translation is not sufficient to effectively communicate the instrument's purpose and/or questions. Word-for-word translations often lack linguistic or cultural nuance or community-relevant content, making an instrument and its contents less likely to resonate among respondents. One way to address this is to take a culturally (or community) competent and sensitive approach. Cultural competence refers to a researcher and research approach (including instrument) that is intentionally mindful of different cultural experiences and understandings, including common ways of communicating and expressions. This also emphasizes using careful, unharmed, and mutually understandable language. Cultural sensitivity refers to a researcher and research approach that is sensitive to a community's cultural understandings and definitions of key terms. This also emphasizes creating instruments and other project-related content (e.g., outreach materials, strategies, programs, and interventions) that are most likely to be useful and effective with a particular population. One way to ensure a culturally competent and/or sensitive approach is to work with native language speakers and community members during the survey development process or early in the project development process. For example, surveys could be created with specific language speakers or community members, or could be engaged in order to test an instrument and its language.
12. *Avoid untested questions and content:* Often survey instruments, including their questions and content (e.g., instructions) are adopted without fully considering how respondents may respond. Pretesting, including having external persons or key demographic groups pretest the instrument, can ensure a clearer and more meaningful instrument.
13. *Address repetitive survey delivery options:* Often online or web-based surveys are the most efficient, cost-effective, and convenient option to collect data. Or we often tend to use options that we are familiar or comfortable with. While these are fair justifications, survey delivery is an important decision not to be taken lightly, particularly if time, capacity, and costs are not limited. Repetitive survey options can lead to low response rates and survey fatigue among respondents, particularly if the same group is contacted multiple times within a year or less. Surveys can be delivered via online/web-based options (e.g., PublicInput), mail, telephone, and even in-person. Each option has its own strengths and



weaknesses (see [Social Science Instrument Guidance, Table 1](#)) For example, in-person intercept surveys (not listed in Table 1) requires a researcher to be physically present for in-person interactions, necessitates geographic or location rationale for site selection, and tend to have high response rates; however, such options are not always feasible due to capacity, time, or funding constraints.

14. *Address question ambiguity and precision:* Survey questions come in all shapes and sizes; however, questions can often come across as confusing and ambiguous. This ambiguity is often the result of poor sentence structure, using words or terms with varying meanings, using technical language or jargon, using negatives or double negatives, and even double-barreled questions. Conversely, survey questions can be too precise, producing unreliable, unusable, and inaccurate responses. For example, surveys may ask for precise numerical information on a topic that may be challenging to accurately recall among some respondents. To avoid ambiguity and too much precision, construct short, crisp, and simple questions. Also, if building upon or using already well-established research, seek validated questions and question structures from similar studies, notably from peer-reviewed materials or those that have gone through a vetting process.
  - a. *Example of question ambiguity and precision:* How many times in the last ten years did your household eat local (WA) fish?
  - b. *Example that addresses question ambiguity and precision:* Does your family eat local (WA) fish? Based on the options provided, please select the best response that indicates how often your family typically eats local (WA) fish in a year. Responses: Every day, Once a week, A few times a month, Every few months, A few times a year, Once a year, Never, I don't know
  - c. *Explanation:* While the question (a.) makes sense, if the household already consumes a lot of locally caught or purchased fish, then this question might be too difficult to accurately answer. In b. this question is rearticulated in order to be less precise, but also attempts to answer the same frequency of consumption question.
15. *Address social desirability effect:* Some respondents may answer survey questions so that they appear positively or good (socially desirable) to themselves and those conducting the survey. This is common when it comes to self-reported behaviors, as “positive” behaviors are often over-reported, while “negative” behaviors are often under-reported. This effect is most common during face-to-face or telephone interactions (e.g., face-to-face interviews or phone surveys) and less common with surveys (e.g., mail and web-based). There are four common strategies for reducing this effect. These strategies include: (1) embedding a statement or scenario that emphasizes that everyone engages in a particular behavior or maintains a particular attitude (or set of values, etc.). For example, instead of asking, “Do you fish without a license?,” you could reframe and ask, “Many people forget to purchase a fishing license but engage in fishing activities. Have you ever forgotten to apply for a fishing license over the last 10 years?” (2) Integrate an authority-focused framing into the question. For example, instead of asking, “How often do you consume Washington caught salmon?,” you could reframe and ask, “Scientists believe eating Washington caught salmon will not disrupt Southern Resident Killer Whale consumption needs. Have you consumed any





Washington caught salmon in the last 6 months?” (3) Integrate a built-in excuse into the question. For example, instead of asking, “Do you engage in outdoor recreation for your physical health on a weekly basis?,” you could reframe and ask, “We know many people have busy schedules and have a hard time engaging in outdoor recreation for their physical health. How often do you engage in outdoor recreation for your physical health?” (4) Lastly, ask a less specific question to help diffuse potential biases. For example, instead of asking, “Do you fish without a license often?,” you could reframe and ask, “Have you ever, even one time, fished without a license?”

16. *Surveys vs. other data collection methods:* Surveys are one of the most commonly used social science research tools to collect social or human data. While common and widely used, surveys are not always the right tool for all questions, circumstances, or projects. Use other resources provided to help determine alternative methods (see: [Guidance on Social Science Research Methods](#)) or contact the [Conservation Social Scientist and/or Natural Resource Economist](#) for additional guidance.



# Survey Preparation Checklist

- Is the language simple?
- Is the question double-barreled?
- Is the question leading?
- Is the question negative?
- Is there prestige bias?
- Is the respondent likely to have the necessary knowledge to respond?
- Will the words have the same meaning for all respondents?
- Is there sufficient question sequencing? Do the questions flow in a logical order?
- Is there too much textual content? Can the question be shortened?
- Are the summated rating order questions using consistent structures?
- Does the survey consider culturally (or community) competent and sensitive content?
- Has the survey instrument been tested prior to implementation?
- Have other survey delivery options been considered?
- Is the question ambiguous?
- Is the question too precise?
- Has the social desirability effect been considered?
- Have other method options been considered?



# WDFW Recommended Demographic Questions

WDFW recognizes the need to collect accurate and detailed demographic information to gauge how we engage with Washington communities, including how we consider diversity, equity, and inclusion in our public engagement. The Communications and Public Engagement Team, working in collaboration with other Department staff, developed a list of demographic questions to use when engaging or collecting data from the public. These approved demographic questions are outlined below. Given that demographics and demographic questions are integral to social science research, additional notes are added to some questions for clarity.

1. What county do you live in?
  - a. Responses: All WA counties, Oregon, Idaho, Other-United States, Other-Canada, Other-International (not Canada), and Prefer not to answer
  - b. Note: This question and series of responses would only be appropriate when county or residence is necessary or integral to the survey and analysis. For example, if a survey is conducted in one region or one county, all of these responses would be unnecessary.
2. How did you hear about this opportunity?
  - a. Responses: Fish and Wildlife Commission, Club or non-profit group announcement, News outlet, Online forum, Social media, WDFW website, WDFW emails or news, Word of mouth, Other, Advisory committee meeting
  - b. Note: This question is only necessary for survey instruments used via convenience or snowball sampling (when surveys are shared via already established social networks or communications outlets).
3. What is your gender?
  - a. Responses: Male, Female, Non-binary, Transgender, Agender, Intersex, Genderfluid, Prefer not to answer
  - b. Note: The responses above are not aligned with WA OFM or US Census sex or gender classification norms. This lack of alignment makes generalization and gauging representativeness of a sample (based on sex or gender) more challenging for analysis purposes.
4. What is your age?
  - a. Responses: Under 18, 18-25, 26-35, 36-45, 46-55, 56-65, 66-75, over 75, Prefer not to answer



- b. Note: The responses above are not aligned with WA OFM or US Census age classification norms. This lack of alignment makes generalization and gauging representativeness of a sample (based on age) more challenging for analysis purposes.
5. Are you of Hispanic, Latine, or Spanish origin (You may choose more than one option).
- a. Responses: No, not Hispanic, Latine, or Spanish origin; Yes, Mexican, Mexican American, Chicano/a; Yes, Puerto Rican; Yes, Cuban; Yes, another Hispanic, Latine, or Spanish origin
  - b. Note: The responses above are not aligned with WA OFM or US Census racial or ethnic classification norms. This lack of alignment makes generalization and gauging representativeness of a sample (based on race or ethnicity) more challenging for analysis purposes.
6. What is your race?
- a. Responses: American Indian or Alaskan Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, White, Prefer not to answer, Two or more races
7. If participant selected “Asian” skip to question “Which of the following best define you?”
- a. Responses: Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese, Other
8. If participant selected “Native Hawaiian or Other Pacific Islander” skip to question “Which of the following best define you?”
- a. Responses: Native Hawaiian, Guamanian or Chamorro, Samoan, Other Pacific Islander
9. If participant selected “American Indian or Alaska Native” skip to question “Which of the following best define you?”
- a. Responses: Confederated Tribes and Bands of the Yakama Reservation, Confederated Tribes of the Chehalis Reservation, Confederated Tribes of the Colville Reservation, Cowlitz Indian Tribe, Hoh Indian Tribe, Jamestown S’Klallam Tribe, Kalispel Tribe of Indians, Lower Elwha Klallam Tribe, Lummi Nation, Makah Tribe, Muckleshoot Indian Tribe, Nisqually Indian Tribe, Nooksack Indian Tribe, Port Gamble S’Klallam Tribe, Puyallup Tribe, Quilleute Tribe, Quinault Indian Nation, Samish Indian Nation, Sauk-Suiattle Indian Tribe, Shoalwater Bay Indian Tribe, Skokomish Indian Tribe, Snohomish Tribe, Snoqualmie Indian Tribe, Spokane Tribe of Indians, Squaxin Island Tribe, Stillaguamish Tribe of Indians, Suquamish Tribe, Swinomish Indian Tribal Community, Tulalip Tribes, Upper Skagit Indian Tribe, Nez Perce, Confederated Tribes of the Umatilla Indian Reservation, Warm Springs, Other
10. Do you speak a language other than English at home?
- a. Responses: Yes, No
11. What other language do you speak?
- a. Responses: Chinese Cantonese, Chinese Mandarin, Korean, Russian, Somali, Spanish, Tagalog, Vietnamese, Other



12. Please tell us your ideas for improving our outreach

- a. Open response
- b. Note: This question is only relevant for outreach focused surveys.



# Survey Content

Surveys can include different types of questions and content. Below, please find some common survey elements (e.g., Research Statement, Questions) and examples of question types (e.g., Multiple Choice) that could be included in a survey instrument. This is intended to be informational and not prescriptive. The Research Statement includes questions that could be answered in an introductory statement. The Question Types include different types of commonly used questions and how they tend to be constructed using survey best practices.

## Research Statement

What are you doing? Why are you doing it? What will you do with the data? How long will this survey take to complete? Why are you asking this group to take this? Can respondents opt out of the survey at any time? What confidentiality and/or anonymity are you providing to participants? Who can they contact if they have an issue or problem with the instrument and/or study?

## Question types

1. **Multiple choice:** When are you most likely to go recreational fishing in Puget Sound?

- Early morning
- Late morning
- Afternoon
- Evening
- Never

2. **Rating scale:** How often do you go recreational fishing in Puget Sound?

- Very frequently
- Frequently
- Occasionally
- Rarely
- Never

3. **Likert scale:** Please share your level of agreement for the following statement: I always record my catch when I go recreational fishing in Puget Sound.

- Strongly agree
- Agree
- Neutral
- Somewhat disagree
- Strongly disagree

4. **Dichotomous:** I always have my recreational fishing license when I go fishing in Puget Sound.

- Yes
- No





5. **Checklist:** I avoid fishing at water access areas in Puget Sound when (please select all responses that apply)...

The area is crowded

The area is vandalized

The area is littered with garbage

The area has experienced crime

The area is located in an urban area

The area is located in a rural area

The area has experienced pollution

The area has experienced harmful algal blooms

The area makes me feel unsafe

6. **Open ended:** What does fishing in Puget Sound mean to you?



# Bibliography

Bernard HR. 2006. *Research methods in anthropology*. 4<sup>th</sup> ed. New York: Altamira Press.

Connelly NA, Siemer WF, Decker DJ, Allred SB. 2012. *Methods of human dimensions inquiry*. In: Decker DJ, Riley SJ, Siemer WF, editors, *Human dimensions of wildlife management*. Baltimore (MD): The John Hopkins University Press. p. 122-156.

Della Porta D, Keating M. 2008. *Comparing approaches, methodologies, and methods. Some concluding remarks*. In: Della Porta D, Keating M, editors. *Approaches and methodologies in the social sciences*. Cambridge: Cambridge University Press. pp. 316-322.

de Vaus D. 2014. *Surveys in social research*. 6<sup>th</sup> ed. London: Routledge.

Leavy P. 2017. *Research design: quantitative, qualitative, mixed methods, arts-based, and community-based participatory research approaches*. New York: The Guilford Press.

Preston V. 2009. *Questionnaire survey*. In Kitchin R, Thrift N, editors. *International encyclopedia of human geography*. Amsterdam: Elsevier. pp. 46-52.

Singleton Jr. RA, Straits BC. 2005. *Approaches to social research*. 4<sup>th</sup> ed. Oxford: Oxford University Press.

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<sup>i</sup> Additional information: This guidance document provides a general overview of social science surveys as a research method. A method refers to ways of acquiring data (Della Porta & Keating 2008). A methodology refers to how methods are applied to acquire data and includes an overall plan that integrates theory and methods (Della Porta & Keating 2008; Leavy 2017). For the purpose of this document, all information provided has been modified for a practitioner audience. Due to this tailoring, some nuance or complexity may be omitted. For example, while the term survey is widely used, there are differences when used within the social sciences, notably when distinguishing between a survey and questionnaire. A survey is an approach or form of research that involves asking a relatively large group of people questions through a questionnaire, interview, or other tool, while a questionnaire is the actual instrument used to structure questions aimed at obtaining data (Bernard 2005; Singleton & Straits 2005; Preston 2009; de Vaus 2014). While there is a distinction, for the purpose of this document, we use the term survey in a broad and common use sense.

