

Transportation Outreach Planner

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Public Outreach Strategies

Public Opinion Surveys

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Recommended Target Groups

Education

College Education
High School Diploma
No High School Diploma

Language

Creole
Other
Spanish

Disability

Hearing Impaired
Other
Physically Challenged
Sight Impaired

Income

Low Income
Middle to Affluent

Vehicle Ownership

Non-vehicle Owner
Vehicle Owner

Race and Ethnicity

Race and Ethnicity

Age

Seniors

Working Age Adults

Youth

Strategy Class

- General

Strategy Types

- Educational

Description

A public opinion survey is a carefully crafted questionnaire used to gauge public opinion on a particular subject matter. Generally, the survey is administered to a random sample of people considered to be representative of a larger target population. The survey can be performed through a written questionnaire, in-person interviews, telephone calls, or other form of electronic media.

Special Uses

Surveys results can be used to: ¹

- Shape public information campaigns;
- Inform public officials;
- Identify community needs, priorities and public opinions;
- Form or refine public policies; and
- Rate or evaluate projects or policies

When to Use

Public opinion surveys can be administered at any time during a project. During the start of a project, surveys can be used to test how a project or policy will be received. Surveys can also be used to determine community perceptions and concerns during later phases of a project. Once a project is completed, a survey can be used to evaluate its effectiveness.²

Cost

*** * * High (\$10000 to \$50000)**

Surveys can represent a high expense, depending on the sample size and the type of survey used. Costs include the creation of the survey instrument, as well as the administration, collection, and reporting of the findings. It may be necessary to purchase special software to create on-line surveys. In some cases, agencies may have to purchase mailing lists from marketing firms or government entities that specialize in compiling such data.⁴

Low (up to \$999)

*

Moderate (\$1,000 to \$9,999)

**

High (\$10,000 to \$50,000)

Very High (Above \$50,000)

Disclaimer: The cost estimates provided are intended to be a guide. Project costs will vary depending on the size and nature of the project.

Time

*** 1 to 3 months**

Surveys can be completed within a relatively short amount of time, if the sample size is small and the survey instrument is not complex. The most time consuming aspect of a survey is the collection of survey responses. If the responses do not generate the desired sample size, the survey may not be valid. In some cases, it may be necessary to send out several reminders. As such, adequate time should be set aside for survey collection. Data entry and analysis can also take time to complete, particularly if the survey instrument is automated.⁵

1 to 3 months	*
6 months to a year	**
Multiyear	***

Disclaimer: The time estimates are approximations. The duration of a project may vary depending on various factors, including size and budget.

Implementation Guidelines and Suggestions

The following serve as recommended guidelines and suggestions for implementing a public opinion survey³:

- **Determine who will be developing and conducting the survey.** In selecting the team who will be developing and administering the survey, it is important to select individuals who are trained and have experience in producing statistically valid surveys. This will ensure that the results are accurate, valid, and unbiased.
- **Determine the purpose of the survey and the information you want to learn.** It is important to have a clear understanding of the type of information you want to obtain from the survey and how you will use that information. These factors will help determine the type of survey instrument that will be used and the questions that will be asked.
- **Identify the target population of the survey.** The target population is the group whose opinion you are interested in obtaining. For example, you may want to know how the residents of a particular neighborhood perceive the transportation project that is going through their community. The residents of the neighborhood are your target population.
- **Select the sample size of the survey.** Since it may not be practical to survey everyone in a target population due to the size of the group or other factors, it is important to select a representative sample of the population to be surveyed. The sample size will be dependent on the desired margin of error (Refers to the amount of random error expected in the survey.) and the confidence level (Refers to how certain you can be that the survey response reflects opinion of the target population. Most surveys aim for a 95 percent confidence level.). There are on-line sites that provide detailed guides on how to select a sample size. (See "For Further Information" for links). The time and budget that is available to complete the survey and the degree of precision that is desired are major factors in determining the desired sample size.
- **Determine if the sample size of the survey needs to reflect subgroups in the target population.** If the survey needs to capture the opinions of various subgroups in the target population, it may be necessary to use quotas. Quotas are representative samples of the sub-group. For example, it may be necessary to understand how a project is perceived by different neighborhoods in a county. Each neighborhood would be a subgroup. When using quotas, it is important to make sure you have enough people in each sub-group to be able to get statistically relevant results.
- **Establish a method for randomly selecting survey participants.** Care should be taken to ensure random selection of survey participants. This will ensure that the results provide a more reliable projection of the larger population. In a random sample, every member of the target population has a chance of being selected. If you have a list of telephone numbers, emails, or names that represent your target population, you can use statistical software or Excel's "Randomize" function to help you randomly select participants.
- **Select the type of survey you will use to collect the information.** When selecting the survey method, it is important to be aware of inherent biases that may exist. For example, telephone surveys will be limited to individuals who have publically listed telephone numbers. It will not capture unlisted or mobile phone users. Surveys conducted by email or Web Pages may also be limited to people who have internet access. Such individuals may not reflect the target population. It is best to use a survey methodology that is likely to be accessible to the majority of the target population. Below is a list of the various types of surveys that can be used:
 - Personal interviews
 - Telephone Surveys
 - Mail Surveys
 - Computer Direct Surveys in Electronic Kiosks or Computer Terminals
 - Email Surveys
 - Internet/Web Page Surveys

- **Create survey questions.** The following suggestions should be considered when writing a questionnaire:
 - Design the questions for the intended survey medium (i.e. telephone survey compared to a web survey).
 - Include an introduction explaining the purpose of the survey and provide brief instructions.
 - Explain how answers will be used and who will have access to the information.
 - Keep the questions simple and short.
 - Determine if you will use multiple choice, rating scale, open-ended questions, or a combination.
 - Provide users the option to select the following answers: “Don’t Know”, “Not Applicable”, and “Other”.
 - Leave difficult questions for the end.
 - For mail surveys, number the questionnaires and include a return address. Use postage stamps, if possible.
 - Avoid emotionally charged remarks or leading questions, as well as technical terms.
- **Test the questions of the survey to make sure they are valid.** Before using the survey, it is important to test the instrument with people who have not worked on the project. This will reveal if there are any problems, errors or questions that need to be clarified or corrected. It can also help to determine if the questions are too long or too short, or if they make sense to people. If possible, the test should be administered to individuals who are similar to the sample group.
- **Develop a method for collecting and analyzing the data from the survey.** Prior to implementing the surveys, develop a process for collecting and analyzing the data. The spreadsheets or databases in which data will be entered should be tested to ensure it allows for adequate analysis. If open-ended questions are used, it may be necessary to categorize and code the responses in order to facilitate data entry.

Recommended Target Demographics

It is important to know the target demographic prior to conducting a public information survey, as some survey instruments are more suited for specific demographic groups. Youth, working age adults, and individuals from middle income or affluent communities are more likely to be receptive to internet or electronic-based surveys.⁶ Mail surveys, telephone surveys, and personal interviews may be more effective among the elderly, low income communities, and other population groups who may not have access to computers or electronic communication. However, an element of trust must be established, as some may be suspicious of people who are trying to obtain information from them.

Lessons Learned/Challenges

Below are key points to keep in mind when implementing a public opinion survey:⁷

- Surveys should be made available in different languages and in audio format in order to be accessible to non-English speaking individuals and persons with disabilities.
- Pre-testing the surveys can serve to prevent ambiguities or misunderstandings with community members.
- Questions should be phrased in neutral language to allow the respondents to form their own opinion on the questions being asked. Careful attention should be given to avoid leading questions.
- To avoid problems or questions regarding the reliability and validity of a survey, it is best to assign the project to individuals who have training and experience in survey development and statistical methods. Agencies may consider local universities and colleges as a possible source of expertise.
- Persons conducting telephone surveys or personal interviews should be trained on the proper way of administering a survey. They should also be provided with a script for how to greet individuals and request participation.

Case Studies

The following are case studies of how public opinion surveys were used as a public participation tool:

- The Wasatch Front Regional Council of the Utah Transit Authority used surveys to determine the transportation preferences for disabled persons (. They surveyed 100 providers and obtained user information through various outreach efforts http://www.mountainland.org/mobilitystudy/wasatchfront_mobility.pdf).⁷
- The City of Tulsa, as part of the effort to develop their comprehensive plan and transit strategic plan, conducted a statistically significant survey of 1,000 residents. The survey revealed that the residents of Tulsa want more transportation options (<http://www.incoq.org/transportation/documents/RailTransitStrategicPlanFinal.pdf>).⁸

For Further Information

Cornell Institute for Social and Economic Research: Public Opinion Surveys: The site provides a comprehensive collection of public information surveys on a variety of subjects, including transportation. It also contains information on survey methodology and sample questionnaires (<http://www.ciser.cornell.edu/info/polls.shtml>).

Research Methods Knowledge Base: Surveys Research: The site includes a guide for developing surveys and provides useful information on standards and practices (<http://www.socialresearchmethods.net/kb/survey.php>).

Sources

¹ Department of Transportation, Federal Highway Administration (FHWA), "USDOT FHWA/FTA Public Involvement Techniques for Transportation Decision-Making: Public Opinion Surveys ." August 2002, FHWA, 29 March 2011 <

http://www.planning.dot.gov/PublicInvolvement/pi_documents/toc.asp > .

² FHWA, " Public Opinion Surveys ."

³ Creative Research Systems, "Survey Design." 28 April 2011. < <http://www.surveysystem.com/sdesign.htm> > .

⁴ FHWA, " Public Opinion Surveys ."

⁵ FHWA, " Public Opinion Surveys ."

⁶ "Double Click, Ad Planner, The 100 Most Visited Sites: United States," January 2011, Google, 21 September 2011, <

[http://www.google.com/adplanner/static/top100countries/us.html /](http://www.google.com/adplanner/static/top100countries/us.html/) > .

⁷ The Wasatch Front Regional Council, "Wasatch Front Mobility Management Project: Final Report," February 2010, Utah Transit Authority, 29 March 2011, < http://www.mountainland.org/mobilitystudy/wasatchfront_mobility.pdf > .

⁸ Transportation Strategies Ad Hoc Committee of the INCOG Transportation Policy Committee, "Rail Transit Strategic Plan," October 2008, City of Tulsa, 29 March 2011, < <http://www.incoq.org/transportation/documents/RailTransitStrategicPlanFinal.pdf> > . 8

⁹ Cornell University. Cornell Institute for Social and Economic Research, "Public Opinion Surveys." 6 May 2011 <

<http://www.ciser.cornell.edu/info/polls.shtml> > .

¹⁰ Tromchim, William M.K., Research Methods Knowledge Base, "Surveys Research." 6 May 2011

<<http://www.socialresearchmethods.net/kb/survey.php>> .