Pretesting Surveys
Highlights of COAN907, an elective course for all band levels.

Why This Course is Important
This course is on pretesting surveys prior to their administration. At GAO, we do not separate data collection tasks out from everything else we know about planning and engagement design. Data collection needs to be carefully planned and fully integrated with the rest of what we are doing on an engagement.

Our data collection needs to make sense in terms of answering our researchable question, using the appropriate information we have collected, and leading us to the types of statements we expect to be able to make in our product.

The Knowledge and Skills This Course Covers
Through discussion and group exercises, this course focuses on five key objectives to help the participant:

- Become familiar with survey testing techniques,
- Gain a basic understanding of the pretest process,
- Understand cognitive processes related to answering questions,
- Understand how to administer pretests, and
- Understand the roles of survey specialists in the pretest process.

Participants learn about the third stage of questionnaire development—pretesting and revising a questionnaire. Pretesting is required for standard GAO surveys that collect information from a respondent, document our communication with the respondent and for those designed to provide numerical results for a report. Pretesting is conducted to ensure you will obtain valid and reliable answers, and to minimize respondent burden and increase the chances for a higher response rate.

Through the use of examples, the instructor shows how certain questions will result in low validity. The instructor will also discuss the timeline of the pretest process, including what is done before, during, and following the pretest. For example, determining logistics and choosing a technique must be done prior to pretesting. Participants will learn about the various types of probing that might take place during a pretest. They will also learn how to document findings, resolve conflicting information, review questionnaire objectives, revise the questionnaire, and test the revised questionnaire, if needed.

Questions to Ask the Learner after Class
- What elements of pretesting surveys were new to you?
- What elements are important in creating the right setting for a pretest?
- What value lies in conducting multiple pretests?
- What are the various ways you can probe the respondent during the pretest?

For more information, contact Training at training@gao.gov.
**Registrar Information**

<table>
<thead>
<tr>
<th>Pretesting Surveys (COAN907)</th>
<th>Participants learn about the third stage of questionnaire development—pretesting and revising a questionnaire.</th>
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<tbody>
<tr>
<td><strong>Who Should Enroll</strong></td>
<td>All GAO Staff</td>
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<tr>
<td><strong>Prerequisite</strong></td>
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<td><strong>Advanced Preparation</strong></td>
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<td><strong>Recommended Related Courses</strong></td>
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**Course Objectives**

This course focuses on five key objectives to help the participant:
- Become familiar with survey testing techniques,
- Gain a basic understanding of the pretest process,
- Understand cognitive processes related to answering questions,
- Understand how to administer pretests, and
- Understand the roles of survey specialists in the pretest process.

**Competencies**

Thinking Critically

**Instructional Method**

Classroom

**Length**

2 hours

**CPE Credits**

2 (1 government-related)

**Course Manager**

Linda Hawkins, (202) 512-3094

**Course Evaluation**

The first business day after the class ends, participants will receive an electronic evaluation. The first question on the evaluation asks whether or not the participant attended and completed the entire course. Marking “yes” and going on to complete the course evaluation will automatically update training records to reflect completion data and CPE credit. **Note:** Participants must attend and participate in the entire class to be eligible for CPE credit.
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Quality Assurance Framework

GAO’s Quality Assurance Framework for Ensuring Compliance With Generally Accepted Government Auditing Standards (GAGAS)

Leadership
- Mission, Standards and Core Values
- Tone at the Top
- Independence
- Strategic Planning
- Portfolio and Risk Management
- Congressional Protocols
- Agency Protocols

Human Capital
- Recruiting/Hiring
- Assigning Staff
- Professional Development
- Performance Management
- Advancement

Engagement Performance
- Engagement Planning
  - Consultations with Experts and Specialists
  - Stakeholder Involvement
- Supervision and Review
- Evidence
- Message Agreement
  - Partner Concurrence
  - Agency Comments and Third-Party Views
  - Engagement Documentation
  - Public Reporting

Monitoring/Policy Review
- Annual Inspections
- External Audit/Audit Committee
- Peer Review
- Internal Audit
- Quality and Continuous Improvement Assessments
- Professional Practices Advisory Committee
Module 1 PowerPoint Slides

Pretesting Surveys

GAO

Introduction and Course Goals

- Become familiar with survey testing techniques
- Gain a basic understanding of the pretest process
- Understand cognitive processes related to answering questions
- Understand how pretests are administered at GAO
- Understand roles of survey specialists in the pretest process
Module 1
PowerPoint Slides

GAO’s Quality Assurance Framework for Assuring Compliance
With Generally Accepted Government Auditing Standards (GAGAS)

Leadership
- Mission, Standards, and Core Values
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- Evidence
- Message Agreement

Monitoring/Policy Review
- Annual Inspections
- External Audit/audit Committee
- Final Review
- Internal Audit
- Quality and Continuous Improvement Assessments
- Professional Practice Advisory Committee

Course Outline
- Background
- Importance of Pretesting
- Before the Pretest
- During the Pretest
- After the Pretest
- Bibliography
Stages of Questionnaire Development

1. Create basic design
   • Identify specific goals for survey
   • Consider mode of survey administration
   • Define population & identify study sample
2. Develop structured questionnaire
3. Pretest & revise questionnaire
4. Collect data
5. Analyze data & report results

What is Pretesting?

- Pretesting is an examination of processes that participants use to respond to questions, which we use to ensure that questions are interpreted and answered in the way our research intended
- Cognitive interviews are the focus of this course
- There are several other to assess questionnaires, including:
  • Reviews
    • Technical review by survey specialists (e.g., ARM)
    • Review by subject matter experts
    • Proofreading by team members
  • Focus group discussions
  • Behavior coding
  • Usability tests
  • Field or pilot testing (dress rehearsal for large surveys)
Importance of Pretesting

Why Pretest? (General)

- To obtain valid and reliable answers
  - Create understandable questions
  - Determine whether respondents will have the information to answer questions
  - To ensure that data are collected are uniform and useable in GAO reports

- Minimize respondent burden and increase chances for a higher response rate
Why Pretest? (At GAO)

- Required for GAO surveys that:
  - Collect information from a respondent
  - Are designed to provide numerical results for a report

- Strongly suggested for:
  - Data Collection Instruments (e.g., File review form)
  - Semi-structured, exploratory interviews

Cognitive Response Model

- Comprehension
- Retrieval
- Judgment
- Reporting and response selection
Group Exercise #1

Example #1

At what point did you begin your career at GAO?
Possible Causes of Low Validity:

- Comprehension
  - “at what point did you begin your career” may be interpreted several ways. Possible answers:
    - In 1987
    - When I was 26 years old
    - After graduate school
    - 3 years ago

Example #2

In the past three pay periods, how many days have you teleworked?
Possible Causes of Low Validity:

- Retrieval
  - Recalling events across the last six weeks can be difficult for participants. Possible answers:
    - One might review their webTA and answer accurately: 4 days
    - They might estimate about once per week: 6 days
    - They may decide it’s too much work and not answer

Example #3

How many overnight trips have you taken for GAO in the past five fiscal years?
Possible Causes of Low Validity:

- **Judgment**
  - If someone has a large number of trips, it may be difficult to estimate or guess how many
  - For frequent travelers, answering the question may require the participant to make a calculation

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**Example #4**

What percentage of your salary is spent on rent or mortgage payment?

- 0 - 9%
- 10 - 19%
- 20 - 29%
- 30 - 39%
Possible Causes of Low Validity:

- **Judgment**
  - First, participant must use judgment to determine what ‘salary’ means, then they have to determine what time period we are interested in, then they must calculate a percent.

- **Reporting and Response Selection**
  - If participant doesn’t have a mortgage, they may not know whether to answer 0, or to skip the question
  - If a participant does, the percent they calculated above must be mapped onto our provided response categories – what if someone’s mortgage was 50% of their income?

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Timeline of the Pretest Process

<table>
<thead>
<tr>
<th>Before the Pretest</th>
<th>During the Pretest</th>
<th>After the Pretest</th>
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GAO Learning Center - Pretesting Survey - Participant Manual
BEFORE THE PRETEST
Logistics

• Considering the logistics
  • Selecting participants
  • Determining the number of pretests
  • Determining the mode of the pretests
  • Selecting the site
  • Creating the setting

BEFORE THE PRETEST
Selecting Participants

• Select participants from the population to be surveyed
• Select members of all subgroups that may understand or respond to questions differently
• Select participants with limited prior knowledge of the GAO study
• Will one participant be able to answer all questions, or will the questionnaire be passed to multiple people?
• Make sure participants have enough time available to complete the pretest
BEFORE THE PRETEST

Determining the Number of Pretests

- Number of participants depends upon:
  - Degree of variation in population
  - Length of questionnaire
  - Complexity of questionnaire
- Importance of accurate information (risk)
- Time considerations
- There is no magic number of participants or pretests!
  - (GAO guidance suggests a minimum of 5)

BEFORE THE PRETEST

Determining the Mode of the Pretests

- Try to replicate the same basic mode as survey, to ensure the intended survey mode is appropriate and practical

For example:
- If survey will be self-administered (e.g., mail, web, etc.) conduct pretests to ensure the participant can complete the questionnaire without the presence of an interviewer
- If survey will be interviewer-administered (e.g., phone, in-person, etc.) conduct pretest to ensure interviewer can read questions as they are written and participant can provide verbal answers
BEFORE THE PRETEST

Selecting the Site, Creating the Setting

- Face-to-face options
  - Participant’s worksite (access to data or colleagues may be a consideration)
  - GAO premises
  - Meeting venue (e.g., conference)
  - Other appropriate location

- Remote alternatives
  - Telephone with pre-mailing
  - Combined on-site meeting and conference call

BEFORE THE PRETEST

Group Exercise #2
BEFORE THE PRETEST

Scenarios

- Population of Interest
- Job Objective
- Context
- Geographic Dispersion of Population
- Mode of Survey
- Time Frame of Study

Team #1 Scenario:
Employees of the Social Security Administration (SSA)
Team #2 Scenario: TV Broadcasters

Team #3 Scenario: Farmers
Team #4 Scenario: Homeless Veterans

Timeline of the Pretest Process

Before the Pretest  | During the Pretest  | After the Pretest
DURING THE PRETEST

Roles & Responsibilities

- **Team’s emphasis:** Knowledge of topic, participants, and relevance of questions to job

- **Survey specialist’s emphasis:** Conducting the pretest and assisting the team in making decisions about the pretest program

- **Shared roles:** Participating in pretest and improving questionnaire

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DURING THE PRETEST

Cognitive Pretesting Involves:

- A participant and the survey-testing team interacting in real-time (in-person or not)

- A participant reading or listening to instructions and survey questions, answering the survey questions, and sharing additional thoughts.

- The survey-testing team seeking to learn how the participant understands the information and answers questions.

- Through observing and asking follow-up questions.
DURING THE PRETEST

Common Cognitive Pretesting Methods

- Two general approaches:
  - Retrospective Debriefing: complete questionnaire before discuss.
  - Concurrent Probing: discuss each question as it is answered.

- Techniques:
  - Observation
  - Probing questions (“probes”)
  - “Think Aloud”

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DURING THE PRETEST

Retrospective Debriefing

- Participant answers entire questionnaire without interruption
- Team & specialist observe participant completing questionnaire and take notes
- When finished, debrief by:
  - Reviewing each question with participant
  - Pre-planned probing about questions ‘flagged’ before the pretest
  - Ad-hoc probing, based on pretest observations
  - Asking general probes about understanding and ease
  - Discussing observed behaviors

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Pretesting Surveys
DURING THE PRETEST

Concurrent Probing

- Survey specialist asks probing questions after participant answers each survey question
- Team observes participant completing each question and takes notes
- Probes are the same as in the retrospective method, but are asked throughout the questionnaire
  - Pre-planned probes for expected “problem” questions
  - Ad-hoc probes based on pretest observation
  - General probing about understanding and ease

DURING THE PRETEST

Observing the Participant

- Watching and listening for cues that indicate problems in understanding or ease
- Observe how participant processes the questionnaire:
  - Spending excessive time on question or page
  - Departing from the path team intended (e.g., skipping or rereading text)
  - Requesting information from the team
- Observe participant’s non-verbal behavior
  - Facial expressions
  - Body language
- Record time


**DURING THE PRETEST**

**Probing Questions (“Probes”)**

- Indirect probes (about general thought process):
  - “Tell me what you were thinking.”
  - “Tell us more about that.”
- Direct probes (about a specific thought process):
  - “How did you decide on that answer?”
  - “What did you think this question was asking?”
  - “What did you think we meant by ‘nebulizer’?”

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**DURING THE PRETEST**

**Avoid Probing Pitfalls**

- Don’t immediately answer participant’s questions
  - Survey question: “What was your annual budget in fiscal year 2012?”
  - Participant: “What do you mean by fiscal year?”

**DON’T DO THIS:**
- Interviewer: “We mean the Federal fiscal year.”

**DO THIS:**
- Interviewer: “What is your interpretation of fiscal year?”, “How does your company track this information on a yearly basis?”

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DURING THE PRETEST

Avoid Pretesting Pitfalls

• Don’t immediately correct participant’s mistakes
  • Survey question: “Does your organization have a strategic plan?”
    • Yes – Continue
    • No – Skip to question 3
  • Participant answers “No” and does not skip

• DON’T DO THIS:
  • Interviewer: “You missed the skip instruction!”

• DO THIS:
  • Interviewer: Allow participant to continue, see if they catch their mistake. If not, probe: “I see you missed the instruction to go to question 3.”

DURING THE PRETEST

Other Pitfalls to Avoid

• Using body language that leads the participant or reinforces their behavior
  • Nodding
  • Murmuring “uh-huh”
  • Shaking head/frowning

• Challenging the participant’s interpretation or criticisms of the questions
  • Arguing about the meaning of the question
DURING THE PRETEST

Participant “Think-Aloud”

- Ask participant to share their thought processes aloud
- Survey specialist listens and assesses how participant turns information into an answer without interrupting
- At the end, survey specialist asks follow-up questions to diagnose problems

Pretesting Surveys

DURING THE PRETEST

Participant’s Views on Questionnaire

- GAO objectivity
- Length of the questionnaire
- Sensitivity of questionnaire or any items
- Level of motivation to answer questionnaire
- Ease or difficulty of questions
- Appropriateness of questions
  - offensive language to participants
- Add/remove any questions?
Timeline of the Pretest Process

- **Before the Pretest**
- **During the Pretest**
- **After the Pretest**

After Each Pretest Session

- Document findings – save notes entered on a copy of the questionnaire as a workpaper or create a separate “record of interview” write-up
- Based on each pretest, consider whether:
  - questions can be dropped, revised, or combined
  - response categories should be added, deleted or changed
  - questions or key terms should include more detail or simplified, shortened, or expressed more precisely
  - the ordering of questions should be changed
**GAO**

**AFTER THE PRETEST**

**After Multiple Pretest Sessions**

- Engagement team and ARM survey specialist should meet and agree to:
  - changes to the questionnaire
  - resolution of conflicting information
  - whether additional pretests are needed
- The objective of this meeting should serve to ensure that:
  - survey questions are clear, concise, and answerable
  - the level of respondent burden is reasonable
  - there is a good probability that questionnaires will be completed
- Revise or finalize the questionnaire

**Pretesting Surveys**

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**GAO**

**AFTER THE PRETEST**

**When Do We Stop Pretesting?**

This is a decision made jointly by the engagement team and the ARM survey specialist. Decision is based on the professional judgment of each after considering one or more of the following:

- no new information being obtained
- judgment that data obtained will be sufficiently reliable and valid for the purposes of the survey
- assurance that the survey will be sent to the appropriate population
- assurance that the respondents will be willing and able to answer the survey questions

**Pretesting Surveys**
Course Wrap-up and Key Points

- Survey specialist and the study team jointly work on the pretest program
- Conduct appropriate number of cognitive pretests
- Test all important subgroups of population
- Test both comprehension and data retrieval
- (Web surveys) Do at least one usability pretest in addition to other pretests

Note about Appendices

- Appendix 2 provides you with a general overview on pretesting procedures and includes some generic probes that may be used during pretesting
- Appendix 3 provides an index to the different guidance papers produced by ARM over the years. All ARM guidance papers can be found on ARM's website, at:
  - http://intranet.gao.gov/arm/home
Bibliography/Suggested Readings


Bibliography, continued …


Thank You!
### Overview of All Scenarios

<table>
<thead>
<tr>
<th>Info</th>
<th>Team #1</th>
<th>Team #2</th>
<th>Team #3</th>
<th>Team #4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Population of Interest</strong></td>
<td>Employees of the Social Security Administration (SSA)</td>
<td>TV Broadcasters</td>
<td>Farmers</td>
<td>Homeless Veterans</td>
</tr>
<tr>
<td><strong>Job Objective</strong></td>
<td>To assess job satisfaction of employees of SSA</td>
<td>To examine TV station guidelines for broadcasting Public Service Announcements and station use of PSAs</td>
<td>To assess farmers’ current satisfaction with the services provided by the USDA's Farm Service Agency</td>
<td>To identify veterans who are homeless and assess their access to government services</td>
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<tr>
<td><strong>Context</strong></td>
<td>GAO was asked to conduct a review of the management of SSA to assess leadership, independence, and judgment in carrying out the mission of the Department. Part of this audit will be surveying 3,000 employees, or a sample thereof, to get their overall views of the organization, management, and their personal job satisfaction.</td>
<td>The survey has been conducted before but this version has a few extra questions. The team will need to determine the extent to which stations maintain documentation of the numbers and topics of PSAs broadcast.</td>
<td>Surveys have been conducted by USDA, but not in the last few years. Some of the USDA farms programs and program names have changed. GAO has not done a full-scale survey of farmers on this topic. The Farm Bill will be reauthorized soon.</td>
<td>In interviews conducted during questionnaire design, experts indicated that many of the population of respondents are skeptical of government employees. Based on previous research, the team estimates that roughly 1/3 of homeless veterans suffer from mental illness. The team will not be able to take a random sample for the survey.</td>
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<td><strong>Geographic Dispersion of Population</strong></td>
<td>10 field offices located throughout the US</td>
<td>Nationwide</td>
<td>Throughout two regions in the U.S.: the Midwest and the South</td>
<td>Nationwide</td>
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<td><strong>Mode of Survey (not necessarily pretest)</strong></td>
<td>Web</td>
<td>Telephone</td>
<td>Mail</td>
<td>In-Person</td>
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<td><strong>Time Frame of Study</strong></td>
<td>3 months</td>
<td>6 months</td>
<td>1 year</td>
<td>1 year</td>
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<td><strong>Risk Level</strong></td>
<td>Medium</td>
<td>Low</td>
<td>High</td>
<td>Medium</td>
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GAO Learning Center - Pretesting Surveys
Discussion Questions

1. Will pretests be conducted in person, by telephone, or using another method or combination of methods?

2. What sites, settings and other logistics should be considered?

3. What type(s) of respondents will you seek? (Are there different groups of people within your population and who are they?)

4. How will you balance survey quality with geographically dispersed populations, time and resource constraints?
Appendix 2 General Pretest Procedures and Examples of Explanations and Questions

Setting Up the Pretest

When making the appointment with the respondent for the pretest, you will have told the respondent that you’re conducting a pretest of a questionnaire that is in the planning stages and that you’re interested in their reactions to the questions and in their help in finding problems with the questionnaire.

Introduction to the Subject Matter

“We’ve been requested by Congress to study the culture and worklife at GAO. To get a better idea about how GAO employees view the culture at the agency, we will be conducting a survey of randomly selected employees.”

Explanation of the Pretest Procedures

“In order to make sure that we’re asking the right questions and the questions are understandable, we are now pretesting this questionnaire with a few agency employees. We will not be reporting your responses; at this point, we just want to test the questionnaire.”

“What we’d like you to do is go through the questionnaire and answer it as if you had received it in the mail; please record your responses on the questionnaire and as you go along also note any problems or questions you have about the wording or format of any question. We’d like you to complete the questionnaire without asking us any questions about it until afterwards so we get a better idea about how people receiving it in the mail will react to it. After you finish with the questionnaire, we’ll talk about it and discuss any problems and suggestions for dealing with the problems.”

During the Pretest

Observe behavior during the pretest (including time for each page/question, skipped questions or instructions, erasures, other verbal and nonverbal reactions).

If a respondent would like to ask questions during the pretest:

- “We will make sure to talk about that question after you finish, but we’d like you to continue on your own,” or
- “To get a better idea about how people will fill out this questionnaire when we’re not here to clarify a question, we’d like you to keep going. We’ll discuss that issue when you’ve finished.”
After the Pretest

1. Review the questionnaire:
   - “Would you mind if I took a quick look at your responses?” (Review for any inconsistencies, crossed out responses, skipped questions.)

2. Ask for their overall impression of the questionnaire

3. Discuss any questions they have:
   - “Were there any sections or specific questions where you had problems with the wording, format, or kinds of choices you had?”

4. Follow up on any questions where you noticed possible problems during the pretest:
   - “I noticed that on the first page you took a long time to answer a question; can you tell me if you had a problem understanding what we were asking about?”
   - “There were also a couple of questions you left blank; were those unclear or do we not have the option you would choose?”

5. Ask about any items you identified beforehand and specifically wanted to discuss (or follow up on issues they raise):
   - “There’s one question we’d like to follow up on because we’ve had some trouble developing it. We’d like to know what your thoughts are.”
   - “In this question, we ask about the percent of time that you spend on ______. Can you tell me how you came up with that number- what process did you go through?”
   - “Were any terms in that question confusing?”
   - “What does the term ______ mean to you?”
   - “What do you think we mean by this question?”
   - “Were any of the options for that question confusing?”
   - “Are the options provided for that question appropriate and comprehensive?”
   - “How difficult was it to answer that question?”
6. Ask general questions to get an overall sense of the respondent’s view of the questionnaire:
   - “Were the instructions clear?”
   - “Was the questionnaire comprehensive? Did it adequately cover the topic?”
   - “Were the questions clearly written, not ambiguous?”
   - “Were there any questions that seemed overly complex?”
   - “Did the questions seem to flow logically from one to the next?”
   - “Did the questionnaire contain any questions that you consider sensitive?”
   - “Are there any questions you would like to see added or deleted?”
   - “Was the questionnaire too long?”
   - “Do you think GAO has a particular position on this issue?”
   - “Did any of the questions misrepresent a particular issue?”
   - “If you had received this in the mail, do you think you would have filled it out?”

Concluding the Pretest

“Thank you for helping us. Your time and effort will really help to improve the questionnaire.” If a sample is to be drawn: “You may or may not receive the final questionnaire, depending upon whether you’re selected as part of the random sample. If you do receive one, we would very much appreciate your completing it and sending it back.”
Appendix 3

An Expanded Index to GAO Questionnaire Survey Guidance

The Center for Design, Methods and Analysis (CDMA) supports over a hundred questionnaire surveys annually. We offer guidance, tools and resources for structured interviewing and survey research beyond what's listed on our “Surveys and Interviews” guidance page, located on our ARM web page: http://intranet.gao.gov/arm/home.

Below is a more comprehensive, annotated index of currently available information on designing, conducting, analyzing, reporting and documenting questionnaire surveys at GAO. It includes not only the documents on our guidance page, but also “white papers,” technical resources, draft materials under development, and links to select entries in the GAO Policy Manual and EAGLE.

(Note: This index also exists as DM document #5286996. The DM version of this index provides hyperlinks to all materials referenced in this index.)

This index is organized by survey phase, under the following links:

- Survey Planning & Design
- Questionnaire Development
- Questionnaire Testing
- Survey Administration & Fieldwork
- Survey Quality Assessment
- Survey Analysis
- Survey Reporting & Documentation
- Additional Resources

For more information, consult one of the Key Contacts listed on our guidance page.
Survey Planning & Design

Conducting Questionnaire Surveys. An overview of the steps, requirements, and major issues for surveys at GAO.

A Guide to Using the Right Staff at the Right Time. A detailed flowchart of the major steps of a survey, and which staff should be involved at each step.

Computer-Assisted Personal Interview Surveys: Guide To Estimating Duration and Personnel Needs by Task. A listing of survey tasks, and a guide for roughly estimating time and staff required for structured interviews, and the factors that affect those estimates. The stages and tasks apply to a variety of interviewer-administered surveys, including CAPI surveys conducted using QPL or other electronic questionnaires.

Mail Surveys: Guide to Estimating Duration and Personnel Needs by Task. A listing of survey tasks, and a guide for roughly estimating time and staff required for mail surveys, and the factors that affect those estimates. Many of the stages and tasks also apply to other self-administered surveys conducted by Web or email.

Structured Interviews: Basic Principles (COAN931). Participant manual from the Learning Center course defines different types interviews in relation to questionnaire surveys, how to develop, test and administer interview questions, and examples of how to report on testimonial evidence from structured interviews.

Using Structured Interviewing Techniques – Update. A 100-page GAO transfer paper (PEMD 10.1.5, July 1991) presents principles and practices for designing, testing and conducting structured interviews, training interviewers, and selecting and contacting interviewees.

Using Probability, Nonprobability, and Certainty Samples. Guidance from the ARM “Statistics and Sampling” Guidance page for choosing a probability or nonprobability sample for a survey.
GAO Policy Manual:

Pledges of confidentiality (Section 150, Part B: Limitations on the Use of Data and Confidentiality Agreements).

Surveys as an evidence gathering strategy (Section 310, Appendix 1: Evidence Gathering Strategies – Surveys).

Role of survey specialists in engagements (Section 315: Consultations with Experts and Specialists, part B – ARM or Team Specialists, and Section 320: Stakeholder Involvement – Accountability of Stakeholders – Applied Research and Methods).

Questionnaire Development

 Developing and Using Questionnaires - Update. A 200-page GAO transfer paper (PEMD-10.1.7, October 1993) presents survey research principles and practices useful for GAO surveys. Some of the material is out of date, as noted on the “Update” cover page. This paper was written before GAO began conducting Web surveys.

 Developing And Writing Structured Survey Questions (COAN912). Participant manual from the Learning Center course on questionnaire design and testing, including question format and measurement issues.

 Good Practices Guide for Web Questionnaires. Technical guidance for web survey designers on designing response options, visual and interactive enhancements, general layout and design, and question presentation in web surveys. Also includes a bibliography on web survey design.

 Letters, E-Mail Messages, and Introductions for Questionnaires Guidelines and standard wording for different kinds of survey communications, introductions and instruction material for questionnaires.

 Peer Review of Questionnaires. Principles and procedures for the ARM/CDMA requirement that all GAO questionnaires be internally reviewed.

 Checklists for Questionnaire Designers and Reviewers. Tips, problems, and issues that questionnaire authors and peer reviewers should consider before any self- or interviewer-administered questionnaire surveys are finalized.
Archives of Past Questions.

**CDMA questionnaire archive:** A database cataloging over 350 selected past GAO questionnaire surveys of all modes is available to CDMA staff at R:\Question Archive\ and the questionnaires themselves are in the searchable sub folder. See Guide to the GAO Question Archive for more information.

**QPL Wiki archive:** A searchable listing of over 500 past QPL web questionnaires and their QPL source code is available to staff with access to the QPL Wiki at https://qpldocs.gao.gov/wiki/index.php/Category:Survey_Archive.

**Searchable non-GAO survey question repositories:** Consult one of the Key Contacts listed on our web page about access to the Roper Center’s iPoll database, the NCHS QBank, the ICPSR survey data holdings, and other searchable sources of previously asked questions.

Questionnaire Testing

**Questionnaire Pretest Procedures.** Procedures for arranging and conducting a cognitive, debriefing pretest.

**Pretesting Surveys (COAN907).** Participant manual from the Learning Center course on survey testing principles and techniques, and how to design and administer a questionnaire pretesting program.

Survey Administration & Fieldwork

**Choosing a Survey Administration Method (COAN903).** Participant manual from the Learning Center course describing survey modes used at GAO, their strengths and weaknesses, and how to select them.

**Survey Method Evaluation Checklist.** A tool developed as part of the “Choosing a Survey Administration Method” (COAN903) course that helps in choosing between alternative survey modes (Web, mail, e-mail, interviews, etc.).
Structured Interviewing Guidance for Interviewers. General procedures and specific tips for conducting structured interviews.

Survey Quality Assessment

Workpaper Template for Reviewing Quality of Non-GAO Surveys. A form listing criteria developed from OMB Standards and Guidelines for assessing the methodology of external surveys that GAO may report on.

Using Survey Estimates from Secondary Sources When We Cannot Directly Calculate Sampling Errors. Procedures to follow when reporting external survey estimates for which GAO is unable to calculate sampling errors.

Evaluating and Reporting Nonsampling Errors in Surveys. Nonsampling errors and how to report them. Includes helpful objectives, scope, and methodology language.

Calculating and Reporting Survey Response Rates. Guidance on approved methods for calculating and predicting response rates for different types of samples.

Addressing Nonresponse and Nonresponse Bias Issues in Surveys. Guidance and options on when and what kind of nonresponse bias analysis should be done, how to adjust for the effects of nonresponse in estimation, and how nonresponse affects reporting of results and methodology.

Workpaper Template for Nonresponse Planning & Bias Assessment. A checklist that can be used as a form to record steps taken to assess potential nonresponse, plan for nonresponse mitigation, and record an overall assessment of the survey in terms of nonresponse bias.

Evaluating and Changing Problematic Answers in Questionnaire Surveys. Issues to consider when modifying responses to survey questionnaires, based on editing, follow-up telephone contacts, or other methods.

Verification and Quantitative Assessments of Survey Questions. Considerations in planning questionnaire verification efforts and assessing the need to verify survey questions.
Verifying the Accuracy of Electronic Data Entry. Guidance from the ARM “Data Analysis” Guidance page on how to check survey response data keypunched by contractors for GAO surveys.

Survey Analysis

Request Form for Data Entry Services. GAO form with detailed instructions for preparing a request for the GAO contractor to enter questionnaire data (or other structured information from a DCI or other paper source) into an electronic file.

Good Practices on Use of “Indefinite Quantifiers.” General principles from the ARM “Statistics and Sampling” Guidance page when considering the use of indefinite quantifiers such as “many” and “few” to describe survey results.

Qualitative Data Analysis Community of Practice. This GAO Wiki page has links to GAO products that have used content analysis, and contacts to staff familiar with content analysis methods and tools that might be applied to open-ended response data from questionnaire surveys.

Survey Reporting & Documentation

Reporting Results from Probability Samples. Guidance and examples from the ARM “Statistics and Sampling” Guidance page of report language to use when describing probability samples and presenting results.

Reporting on Questionnaire Surveys in GAO Reports, OS&M Sections and E-Supplements. Descriptions and examples of nine types of survey methods information to include in GAO reports and E-supplements.

Guidance for Producing E-Supplements. EAGLE guidance on formats, roles and responsibilities for publishing E-Supplements, including surveys.

Documenting Sample Design and Estimates. Technical guidance and examples from the ARM “Statistics and Sampling” Guidance page on how to document in workpapers and describe in report language the sample designs, selection rationales, and sampling error calculations from surveys.
Workpaper Template for Documenting GAO surveys. A form that methodologists can use as a workpaper to capture a wide variety of survey design and fieldwork events; to support OSM development.

Additional Resources

Consult the Key Contacts listed on our web page for current materials on:

Confidentiality practices in GAO surveys. Policies and procedures for determining whether to offer respondents protection from disclosure of identifiable answers, and what kinds of statements can be made to respondents.

Contracting for large mixed-mode or telephone surveys. Descriptions of survey research and focus group services available under contract, determining need for and cost of the services, and Statements of Work from previous survey projects.

Quality assessment of non-GAO surveys. Approach and criteria for determining the appropriate use of external questionnaire survey results as evidence in GAO products, analogous to determining the reliability of survey data, or performing a “review of studies.”

Questionnaire templates for fillable emailed or paper surveys. Examples of questionnaire formatting in MS Word for standard types of questions, for use in printed or electronic fillable Word or Adobe PDF forms.

Skip instruction design for questionnaires. Principles for creating effective skip instructions and other navigational directions for questionnaires, with examples.

How to avoid one-sided assertions in “agree/disagree” questions. Discussion of types of questions that obtain evaluations without some biases that are sometimes observed with questions in an “agree/disagree” format.