

Evidence

Introduction

The evidence that engagement teams gather is categorized into three categories:

- ✦ Physical
- ✦ Documentary
- ✦ Testimonial

Physical Evidence

Physical evidence is obtained by analysts' direct inspection or observation of people, property, or events. Such evidence can be recorded as memorandums (e.g., records of inspection), charts (e.g., graphics), photographs, maps, drawings, videos, and physical samples.

Strengths: Documenting an observed condition can be very persuasive.

Limitations:

- ✦ The suitability of physical evidence may be affected by when, where, and how observations are collected and documented.
- ✦ People might be aware that they are being observed and act differently.
- ✦ Observed effect might not be due to the cause being evaluated.
- ✦ Observation might not be representative or typical of the activity or object.
- ✦ Could be subject to misinterpretation by the observer or even tampered with.

Addressing limitations:

- ✦ Ensure that physical evidence is collected at times representative of conditions you intend to observe (e.g., peak periods) and with a specified and structured methodology.
- ✦ Make sure photographs are accompanied by a complete record of observation.
- ✦ Check that the physical evidence actually is what it appears to be.

Documentary Evidence

Documentary evidence is obtained in the form of existing information. Documentary evidence obtained for engagements may include:

- ✦ Electronically stored information (e.g., databases, database extracts, or data files) or printed documents, including, accounting records, spreadsheets, extracts, maps, charts, graphics, and photographs that agency officials have given to you.
- ✦ Laws, regulations, policy manuals, and guidance documents.
- ✦ Audits or evaluation reports by GAO or other organizations.
- ✦ Internal management studies or evaluations.
- ✦ Agency correspondence, letters, invoices, contracts, files, and records.
- ✦ Management information on performance.

Strengths:

- ✦ Documents can represent the policies and guidance of the agencies we audit.
- ✦ Documents can be evaluated against other types of evidence.
- ✦ Documents can be used to verify other evidence.

Limitations:

- ✦ Written materials may be inaccurate or out-of-date..
- ✦ Definitions of data might change over time, making the evidence from different points in time not comparable.
- ✦ Evidence might be accidentally or purposefully misrepresented.

Addressing limitations:

- ✦ Ensure the document is authentic and current.
- ✦ Ensure the document represents the official position of the agency by having the agency letterhead, date, and/or official signatures on it where appropriate.
- ✦ Determine by appropriate tests that manuals or other prescriptive statements actually control agency or contractor practices in day-to-day operations.
- ✦ Test data for accuracy and reliability, when feasible.

Testimonial Evidence

Testimonial evidence can be obtained through inquiries, interviews, focus groups, public forums, or questionnaires. Testimonial evidence may be received (1) orally (e.g., through face-to-face or telephone interviews) or (2) in writing (e.g., in responses to data collection instruments, e-mail, questionnaires).

Strengths:

- ✦ Testimonial evidence can be compelling if the person giving it has high credibility.
- ✦ Testimonial evidence often supplements, interprets, verifies or explains information obtained from other sources or in other evidence.
- ✦ Sometimes it is the only way of getting evidence.

Limitations: People providing testimonial evidence could:

- ✦ Tell you only what they believe you want to hear.
- ✦ Distort facts to purposefully hide a problem.
- ✦ Remember the facts incorrectly.
- ✦ Give incomplete information.
- ✦ Deny having said something at a later time.

Addressing limitations:

- ✦ Conduct limited research and/or ask questions to establish that interviewees are knowledgeable enough to give competent answers.
- ✦ Make sure that the appropriate and most knowledgeable people are interviewed or surveyed.
- ✦ Obtain statements from a diverse group of knowledgeable people to ensure your engagement team can present a balanced and objective perspective.
- ✦ Ensure careful design and execution of interviews and other survey instruments.
- ✦ Have two people present during an interview.
- ✦ Verify with the person being interviewed that you have correctly captured the information that he or she presented, particularly when the evidence cannot be corroborated with other types of evidence and it is crucial to a finding.
- ✦ Corroborate testimonial evidence with other forms of evidence whenever possible.

Analysis of Evidence

Analysts/auditors frequently use analytical processes to analyze and assess whether evidence meets agency standards for appropriateness and sufficiency. Such analyses can include:

- ✦ Computations
- ✦ Comparisons of operations or practices with prescribed standards
- ✦ Summaries
- ✦ Separation of information into components
- ✦ Rational arguments

Important Considerations When Analyzing Evidence:

- ✦ Does the quality of the results depend on when and how the information was obtained, analyzed, and interpreted?
- ✦ Are statistical and other techniques (e.g., content analyses) appropriate for the data?
- ✦ Are the results from the analysis only applicable to the population or context that is directly studied?
- ✦ For survey results, do the sample size, response rate, and characteristics of those not responding (“non-response bias”) justify generalizations to a broader population?
- ✦ Were the assumptions used in your analysis met?
- ✦ Do the data reflect actual conditions?

Steps You Can Take To Help Ensure a Quality Analysis:

- ✦ Ensure the analysis is appropriate and sufficiently methodologically rigorous to answer the researchable questions.
- ✦ Make sure the analysis is not based on erroneous or inaccurate evidence.
- ✦ Check to see that the results are interpreted appropriately.

Tests of the Evidence Standard

Appropriateness

What is the *quality* of GAO’s evidence—is it relevant, valid, and reliable?

Appropriateness is established either by obtaining the evidence using a professionally accepted methodology or from a knowledgeable, experienced, reliable, independent, and unbiased source. Usually, evidence obtained from a credible third party is more appropriate than evidence obtained from management or other officials of the audited entity. As needed, GAO analysts/auditors may use statistical or analytical methods to obtain appropriate evidence.

Checklists to Test Appropriateness (Relevance, Validity, Reliability)

Relevance

Evidence is relevant if it has a logical relationship with, and importance to, the issue being addressed. Ultimately, the evidence must directly link to the finding and, when appropriate, the conclusions, and recommendations. Such linkage makes our work convincing and believable.

Checklist to Test Relevance

- Does the evidence address the researchable questions?
- Does the evidence, in a fair and convincing manner, support the finding and, when appropriate, the conclusions and recommendations?
- Does the evidence directly relate to the current issue or situation?

Validity

Evidence is valid if it is based on sound reasoning or accurate information.

Checklist to Test Validity

- Is the evidence accurate? Can all factual statements be supported by the information?
- To what extent is the evidence accepted by others, including experts?
- Would people outside the engagement team agree that the evidence is accurate, authoritative, timely, and authentic?
- To what extent does the evidence measure what is intended?
- Is the analysis flawed? (e.g., does it have logic or arithmetic errors or faulty cause and effect reasoning?)
- Are computer-processed data central to the findings? If so, was the validity of such data adequately assessed?

Reliability

Evidence is reliable if the results are consistent when the evidence is measured or tested.

Checklist to Test Reliability

- Was the evidence gathered in way that it will be clear, unbiased, and accurate?
- Can the evidence be replicated?
- Are computer-processed data central to the findings? If so, was the reliability of such data adequately assessed?
- Is any information being misused—i.e., are limitations not addressed or statistical measures not used correctly?
- If there are limitations in the scope or analysis, have they been clearly disclosed?

Sufficiency

Is there *enough* of the right type(s) of evidence to address agency's objectives and support its findings and conclusions? If so, the evidence is deemed sufficient.

Sufficient evidence is, first, appropriate (relevant, valid, reliable). Different approaches may be used to establish the sufficiency of evidence, such as statistical methods. Judgments about sufficiency (quantity) take into account the controversial, sensitive, or significant nature of findings. As needed, analysts/auditors may use statistical and other analytical methods to establish sufficiency.

Checklist to Test Sufficiency

- Is there enough appropriate evidence to persuade a knowledgeable person that the finding is reasonable? If not, what additional evidence and/or analysis would make the finding more persuasive or acceptable to others?
- Have all relevant data or methodological limitations in the evidence been recognized and reported?

