Overview of Testing Data Reliability

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GAGAS requires that auditors test and report on data reliability. Computer-processed data and data gathered by management should be accurate (free from material error), consistent (yields same results repeatedly), complete (includes all elements), and valid (appropriate information). Reliability does not mean error free, but that the assessment determines whether the associated risks and errors are significant to cause a reasonable person to doubt a finding, conclusion or recommendation.

**Initial Testing**
- Ratio Analysis
- Search for missing data
- Anomalies in data – numbers/dates outside range
- Relationship of one data element to another

**Significance of data to audit objectives**
- Will data be the only evidence supporting a finding?
- Will data be only one type of evidence supporting a finding?
- Will data be used only for information?
- Will magnitude of errors in data be an issue?

**Level of risk**
- Likelihood that using data of questionable reliability will have significant negative consequences on decisions of policy makers.

**Corroborating evidence**
- Strength of other independent types of evidence – documentary, physical, or testimonial
- Consistent with GAGAS

**Use data or not?**
- Data are sufficiently reliable – significant errors or incompleteness is minimal
- Data are not sufficiently reliable – could lead to incorrect of unintentional messages
- Data have undetermined reliability – initial testing raises reliability issues

**Ask for any audits, studies, and consultant reports that may contain information about the system and its data.**
If the project team decides that the data have undetermined reliability, additional testing can be performed.

- Tracing to and from source documents
- Using advanced electronic testing
- Reviewing selected general and application controls

After any additional work is performed, the project team needs to again assess whether the data are sufficiently reliable, not sufficiently reliable, or still of undetermined reliability.

REPORTING ON DATA RELIABILITY

GAGAS requires that audit reports are clear on the reliance on data produced by computer or compiled by management. When our reports state that work was done in conformance with generally accepted government auditing standards, we are stating that we have assessed data reliability and have disclosed any data concerns in the report.

When the project team has assessed that the data are sufficiently reliable, the report should include a statement regarding the type of assessment done and the steps that were taken to determine the suitability of the data. Any limitations of the data should also be acknowledged in the report.

When data are not sufficiently reliable, but are used anyway, the report should include a statement regarding the type of assessment done and the steps that were taken to determine the suitability of the data. In addition, the insufficient reliability of the data should be included as a finding in the report.

If the data are of undetermined reliability, the report should state how the data could lead to an incorrect or unintentional message. The data can be used for informational purposes in the background section if there is a note that states the data are unaudited and the reliability is undetermined.