



# United States Department of the Interior

OFFICE OF THE SECRETARY  
WASHINGTON, D.C. 20240



MAY 10 2007

## Memorandum

To: Heads of Bureaus and Offices

From: Paul Hoffman *Paul Hoff*  
Deputy Assistant Secretary for Performance, Accountability,  
and Human Resources

Subject: Certification of Bureau/Office Implementation of Performance Data Validation  
and Verification Standards

In the attached memo dated January 16, 2003, the Assistant Secretary - Policy, Management and Budget requested that all Bureaus and Offices implement a prescribed set of data validation and verification (V&V) standards on the performance data that they collect and submit. These data V&V standards were developed in consultation with Bureaus and Offices and the Office of the Inspector General (OIG). The implementation of these data V&V standards is a vital component of our annual audit.

In early FY 2006, a team of Grant Thornton experts visited each Bureau, reviewed its implementation of those data V&V standards, and provided a set of observations and recommendations to each Bureau to help it better fulfill those standards. A copy of the Grant Thornton review and recommendations was provided to the OIG at its request. We expect that the OIG, using their independent auditors, KPMG, will follow up this year with select Bureaus and Offices to ensure that the data V&V standards are being implemented effectively in those Bureaus and Offices as part of a review of your performance information provided to the Performance and Accountability Report (PAR) and your implementation of internal control principles in accordance with OMB Circulars A-11 and A-123. Bureaus and Offices who were identified in the Grant Thornton report as having incomplete implementation of data V&V standards are probably more likely to be visited by the KPMG auditors this year.

KPMG plans to complete its review of Bureau and Office data verification procedures by July. In preparation for this review, I am requesting that each Bureau or Office Head provide, in writing, their certification that their Bureau or Office is effectively implementing the data V&V standards that were issued in January 2003, including any recommendations for the Bureau or Office produced by the Grant Thornton team last year. If you find that there are still some standards or recommendations that are not being fully implemented yet, please provide a description of your plan for ensuring implementation of the data V&V standards in time for your October 5 submission to this year's PAR. Please provide your full or conditional certification for our records by June 30, 2007.

I have attached a copy of the January 16, 2003, memo (reissued in May 2005) and suggest that you use its Data Validation and Verification Assessment Matrix as your checklist for determining if your Bureau or Office is adequately implementing the data V&V standards. If you have any questions, please contact Dr. Richard Beck, Director, Office of Planning and Performance Management, at (202) 208-1818.

Attachments



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JAN 16 2003

## Memorandum

To: Assistant Secretaries  
Deputy Assistant Secretaries  
Office Heads  
Bureau Heads

From: P. Lynn Scarlett *PLS*  
Assistant Secretary - Policy, Management and Budget

Subject: Performance Data Credibility

The Department relies heavily on data to provide or improve services, evaluate programs, support decision making, and assess the condition of our public lands and resources. Accurate and reliable information is essential.

The Government Performance and Results Act (GPRA) requires all agencies to describe the means by which performance data will be validated and verified in annual performance plans. But data credibility extends far beyond a basic descriptive narrative. As OMB Circular A-11 states, "The means used should be sufficiently credible and specific to support the general accuracy and reliability of the performance information that is recorded, collected and reported." We cannot expect to make prudent decisions and manage well if we are indifferent to the credibility of the data used to support our management actions.

Over the past several years, performance data validation and verification (Data V&V) have been uneven across the Department. In response, a Data V&V Assessment Matrix was developed by the Office of Planning and Performance Management in cooperation with bureau and Departmental offices, including the Office of the Inspector General (OIG). It can be used to elevate Data V&V systems to an acceptable functional level or help organizations test for potential weaknesses or gaps in implementation. Field tests of the Data V&V "matrix" conducted over this past year clearly demonstrated its utility as a detection tool for data quality control systems. The OIG has already expressed an interest in using the matrix as a performance data auditing tool.

Please distribute the attached Data V&V matrix immediately throughout your organization, with special attention to offices that collect, produce, assess or aggregate performance information. Please take steps now to ensure that your organization has proper performance data protocols in place, or establish them within 90 days of this memorandum. While your organization has discretion in establishing protocols, they should be based on the guidance provided in the Data

V&V matrix. Your office is responsible for ensuring that a Data V&V process is in place and used effectively. Although data need not be "perfect," they must serve their intended purposes and stand up to independent, objective external inspection, as well as to internal control reviews and audits. The Secretary of the Interior is also required to certify performance data completeness and reliability in her transmittal letter for the Department's Annual Performance and Accountability Report.

Bureau and office representatives to the DOI Performance Management Council, including the Department's Planning and Performance Management Office GPRA staff (LeRon Bielak, 202-208-1818) can assist with questions you may have. The Department will also meet with bureaus and offices during the upcoming year to discuss implementation practices and problems.

We have just completed a long and arduous process to develop a draft GPRA strategic plan for FY 2003-2008. This included lengthy and painstaking word smithing of performance measures that are now also being tied to SES performance agreements. We are also about to embark on a Department-wide system of Activity Based Costing/Management, which also has a heavy component of performance data. This is therefore perfect timing for making sure that we actually generate valid performance data that can demonstrate to the public and to ourselves that we are doing our job.

Attachment

cc: Performance Management Council  
PMB Office Heads

## Attachment

**Validation  
Criteria**

- Goal is appropriate to the identified mission of the organization**
  - Performance measured has direct bearing (relationship to) on the goal in question.
- Goal is realistic and measurable**
  - Goal is achievable in the time frame established
  - Goal is neither too aggressive in its expectations or set too low for easy achievement
- Goal is understandable to users**
  - Terms in goal statement are unambiguous and/or terminology is defined
- Goal is used in decision making**
  - Decision makers are identified and their judgment on continued use of the goal in decision-making is periodically evaluated

**RESPONDING OFFICE:**

Validation applies at several levels. First, it is important to establish that the goals that have been selected to measure the performance of the organization have a direct connection and relevance to the mission and desired outcomes that the organization is pursuing. Second, if that relationship is positively established, then the next question to ask is whether the information that is collected clearly relates to the targets that have been set.

***Illustration:***

If for example, the mission of an organization is to reduce the incidence of a certain disease, it is too indirect to measure the number of brochures that it has distributed to the public about the disease. While this may be educational, it is not a direct indicator of strategy being pursued. It will not inform decision makers of progress in disease eradication, and it may in itself be difficult to measure. For example, while brochures may be distributed to 2,000 centers for distribution, there is no gauge for determining who, if anyone, is taking and reading the information.

**Verification**  
-Criteria-

**STANDARDS & PROCEDURES:**

- Source data are well defined, documented; definitions are available and used**
  - Data definitions are well documented and distributed\* to all responsible for specific data collection
  - Responsible offices can document adherence to data definitions
  - Definitions and standards are used in a consistent manner for all parties involved in specific data collection
- Collection standards are documented/available/used**
  - Protocols and methodology for data collection are documented, distributed\* to all responsible for data collection, and adherence to the protocols is required and can be verified
  - Data sources are documented
- Data reporting schedules are documented/distributed/followed**
  - GPRA and other data reporting schedules linked to decision-making are issued\* to all parties responsible for data collection; timely data collection and reporting is routinely practiced
- Collection staff are skilled/trained in proper procedures**
  - Those responsible for either collecting or assembling data are trained for the job. (For data entry responsibilities, see next page)

\* distribution can be electronic or hard copy

**RESPONDING OFFICE:**

**Illustration:**

Standards and procedures refer to establishing the ground rules that should be applied to all data collection efforts for a specific measure. The question is whether the rules are consistently and uniformly applied and clearly communicated to those who are responsible for grass roots data collection. If procedures vary from locale to locale or among individual collectors, results will not be comparable and may not be legitimate. For example, having no clear definition of data to be collected, or mechanisms by which data are collected will inevitably lead to problems in interpreting results or trusting the accuracy of the information. If data definitions are clear, but individuals are not well-trained for the collection effort, which may be complex, additional sources of error may be introduced. Requirements may very well differ from goal to goal, but for a single measure, differences should be minimized if not totally avoided.

**Verification**  
**-Criteria-****DATA ENTRY AND TRANSFER**

- Data entry methodology is documented and followed**
  - Documentation of data entry procedures/protocols is available, understood by, and used by data entry personnel
  - Network of data sources is identified
  - Methods used are comparable for all data entry locations
- Data are verified**
  - Calculations are checked
  - Data consistency checks are employed e.g. electronic editing
- Procedures for making changes to previously entered data are documented and followed**
- Data are available when needed for GPRA reporting and other critical decision making cycles**
- Data entry staff are skilled and trained in proper procedures**

**RESPONDING OFFICE:****Illustration:**

Despite the fact that efforts may have been taken to standardize data collection methodology, errors can be introduced when data are entered, transcribed, or transferred during the reporting process. Whether information is being entered into a computer database or being typed up in a report from handwritten notes, errors are possible. The question is whether there is any system in place for detecting these inadvertent errors. Has an office established protocols for checking and approving data that are transcribed in any way? Is there a procedure for addressing the problem of missing data and ensuring that calculations are correct? Does an office employ computer editing systems, when appropriate and feasible, to help identify data entry problems? The use of computer technology to capture data has afforded analytical tools and power that save considerable labor; however, the issue of the accuracy of data being analyzed can be too easily ignored. Identifying data entry or transfer errors is often a very tedious and unrewarding process, but the importance of follow through in this area is nevertheless high

**Verification**  
**-Criteria-****DATA SECURITY AND INTEGRITY**

- Duplicate copies or back-up system for data exists**
  - Procedures, including frequency of back up system use, is documented and followed
  - Disaster recovery plan in place
- Data security protocols are in place and effective**
  - Firewalls/password protection, access levels, etc. are established
- Equipment and program reliability cannot compromise data accuracy**

**RESPONDING OFFICE:****Illustration:**

This area pertains to precautionary measures that must be taken in the event that computer malfunctions, natural disasters, or human error or actions occur that could affect collected data. Organizations must ensure, whether systems being used are hand-entered records or powerful relational database records, that data are not compromised by lack of attention to security of the data or to the reliability of systems or methods being employed to handle or house data. This means having duplicate records or back up files and ensuring that equipment being employed does the job it was set up or purchased to do. While some problems may be a rare situation, they do occur. For example, some mathematical processes with certain Pentium computers were found to introduce error due to a faulty processor a few years ago. As another example, back-up files, if stored within the same CPU unit on which they were produced, do not offer any additional protection to a malfunction of the hard drive or a fire in that office. These are more indirect considerations for the issue of data accuracy, but cannot be totally disregarded.

Another aspect of data security and integrity is the major question of unauthorized use of data. This could include both external and internal access issues from database "hacking" by external parties, to unauthorized use, including data manipulation, by parties who are not authorized users. A properly designed system will protect internal database systems against unauthorized external use, as well as establish password protection and a clearance process for database changes within the organization.



**Verification**  
**-Criteria-****DATA QUALITY AND LIMITATIONS** **Accuracy limits of all data are defined**

- Estimated data are identified; methodology for estimation is documented and is supportable; use of estimates are minimized
- Data with margins of error due to accuracy of instrumentation or interpretive leeway, are identified and margin of error (e.g. +/- 1%) is reported.
- Incomplete data are identified and extent of missing data is reported
- Preliminary data are identified and qualifications on data are described

 **Any other data limitations are explained and documented** **Method for handling anomalous data is established and used**

- Data that appears to be incongruous compared to most other data obtained is re-evaluated and handled appropriately

 **3<sup>rd</sup> party evaluations are conducted**

- Objective internal and/or external parties are periodically used to verify accuracy/quality of data
- Use of other crosschecks on data quality such as comparison to similar databases are employed and documented

 **Use of externally controlled data is minimized**

- Need to use external data is established
- External is identified as such

**RESPONDING OFFICE:****Illustration:**

While every action may be taken to ensure that data are accurately entered, transcribed, reported or otherwise reproduced, there is an underlying question of whether the data itself is accurate or has some inherent limitations. For example, do reports clearly specify that performance may be based on partial data or estimates or that the source of the data is a third party? Do we have any control over such third party data or know how whether the data is accurate or has certain limitations? Are data reported with a confidence interval if that is applicable? Is there a track record for any changes that may have been made over time to the information and why that change was made? In some cases, confidence in data may be bolstered by employing third parties to evaluate the data by peer review, under contract, through an auditing process, or other options. Qualifications on reported data are important pieces of information to decision makers within an agency and in Congress. Recent evaluations of agency performance reports have commended agencies who have explicitly addressed the question of data limitations.

**Verification**  
-Criteria-

**OVERSIGHT AND CERTIFICATION**

- Accountability for data accuracy exists in performance standards**
  - Accountability resides with all employees responsible for accuracy of data
- Responsible officials certify that procedures were followed each reporting period**
  - Signed certifications are filed
- Responsible officials certify that data is accurate each reporting period.**
  - Signed certifications are filed

**RESPONDING OFFICE:**

**Illustration:**

The underlying purpose of GPRA is to establish accountability. From the Congressional viewpoint, this means establishing a clear connection between an agency's mission, the work it sets out to do, and what it accomplishes for the funds that have been authorized and appropriated for those purposes. Within each level of an agency, accountability must rest with individuals and officials who are delegated the authority and responsibility for achieving certain goals and striving for specific outcomes. This essentially means that a system of checks and balances are employed to encourage an integrated effort to achieve desired results. Practically speaking, it may often be difficult for management to determine whether information collected or generated by employees is accurate and complete. If they have had extensive prior experience in the area, management may have considerable insight into the processes involved and how to evaluate results. Regardless of the depth of knowledge, staff and management must both be accountable for GPRA data reported. While incorporating accountability into performance standards or employing certifications or attestations to data accuracy will not guarantee that GPRA data is valid and verifiable, such measures will reinforce the importance of accountability and responsibility for performance measurement data and tend to improve the odds that decision makers are dealing with bona fide and reliable information.