Steps for Ensuring Data Quality

Data quality is more than accuracy and reliability. High levels of data quality are achieved when information is valid for the use to which it is applied and when decisionmakers have confidence in and rely upon the data. Implement these steps organization-wide to increase and maintain data quality.

1. Are requirements known?
   - Compare policy, regulation, and procedures with instructions given to data providers, collection forms, and code in computer programs.
   - Ensure all personnel are knowledgeable, certified, and trained for their assigned tasks.
   - Include data providers and data processors in decisions to establish what is feasible.

2. Is process well designed?
   - Review design by peers, agencies, and staff.
   - Preprint all available data. Limit times data are entered.
   - Ensure target dates are reasonable and clear.
   - Compare policy, regulation, and procedures with instructions given to data providers, collection forms, and code in computer programs.
   - Include data providers and data processors in decisions to establish what is feasible.
   - Ensure all personnel are knowledgeable, certified, and trained for their assigned tasks.

3. Is process well documented and communicated?
   - Review design by peers, agencies, and staff.
   - Provide documentation for data providers and data processors.
   - Provide a data dictionary and format specifications.
   - Provide immediate help for data providers.
   - Provide training and certification for data providers and all new staff.

4. Is process well implemented?
   - Run audit reports for review by experts with knowledge of reasonableness.
   - Run most automated/validated level of data entry possible (e.g., codes in an automated application vs. paper forms).
   - Use random checks during production.
   - Run maintenance before all production. Verify off-hour maintenance and staff availability.

5. Are data verified and compared?
   - Ensure all requirements are available (e.g., computer hardware, software, network, etc.).
   - Use most automated/validated level of data entry possible (e.g., codes in an automated application vs. paper forms).
   - Use random checks during production.
   - Run maintenance before all production. Verify off-hour maintenance and staff availability.

6. Are data appropriately analyzed and reported?
   - Use checklists and signoffs for key steps.
   - Run sample data and verify.
   - Conduct on-site reviews during the process.
   - Ensure problems are reported, documented, corrected, and communicated back to the source of the problem or report.

Want to learn how to improve your data quality?
ESP Solutions Group conducts comprehensive data quality audits for local, state, and federal education agencies. We can assess your data processes, identify your strengths and weaknesses, and make practical recommendations on how to improve the data quality across your entire organization. For more information on ESP’s data quality services, visit www.espsolutionsgroup.com/dataquality.