

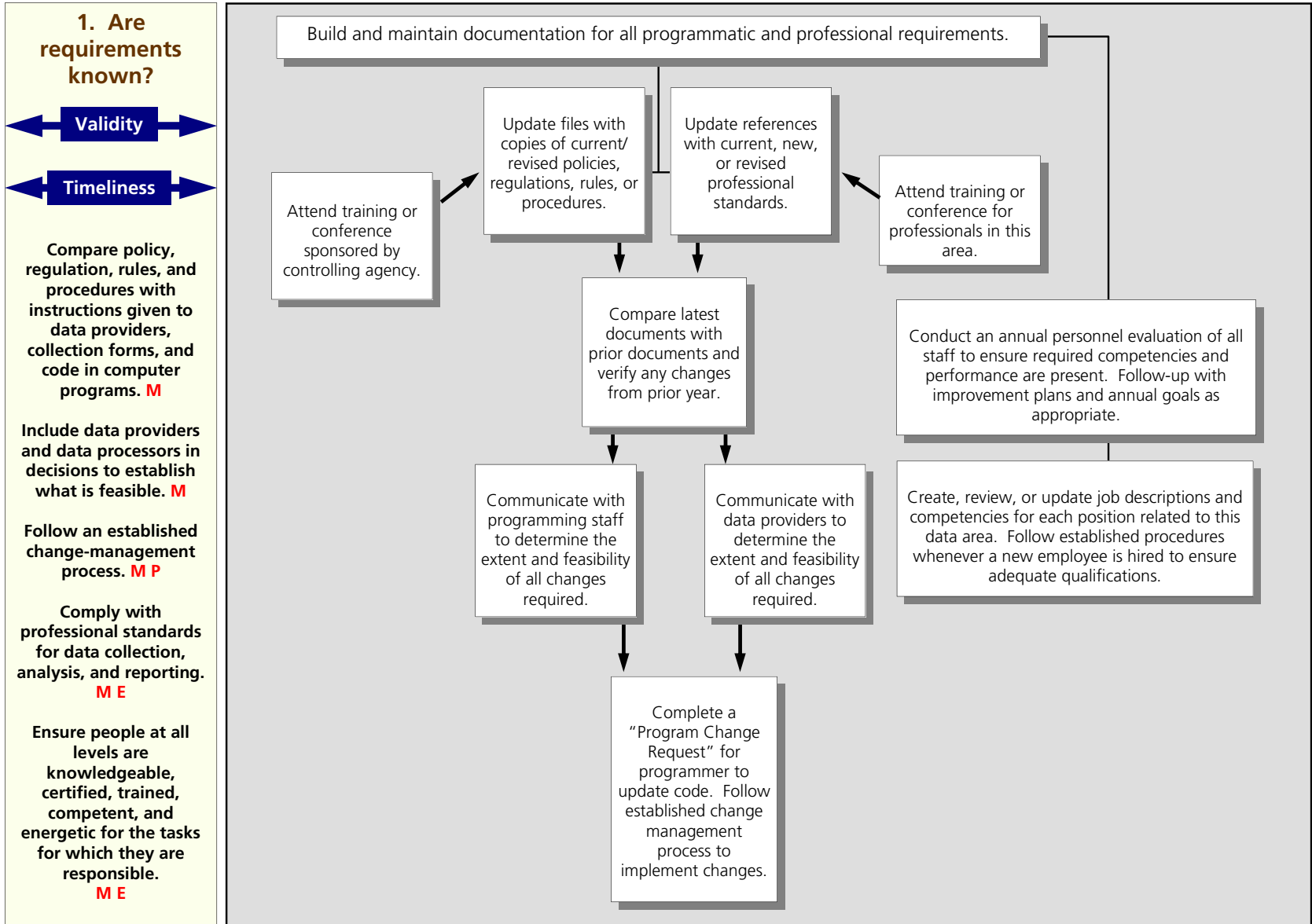
 **SAMPLE MATERIAL: Process Steps for Ensuring Quality Data**

*Purpose:* Use these six flow charts—each representing a step in data collection and processing—to plan, implement, or evaluate your data collection process. Based on U.S. Department of Education standards, these best practices are described in detail to help you ensure the validity, timeliness, and accuracy of data produced during a program evaluation.

*Source:* © 2004, ESP Solutions Group, Austin, TX. Web site: [www.espsolutionsgroup.com](http://www.espsolutionsgroup.com). Last accessed December 18, 2008.

**Data Area:**  
*Any Area*

**Best Practice**  
**DATA QUALITY STEP 1**



**1. Are requirements known?**

Validity

Timeliness

Compare policy, regulation, rules, and procedures with instructions given to data providers, collection forms, and code in computer programs. **M**

Include data providers and data processors in decisions to establish what is feasible. **M**

Follow an established change-management process. **M P**

Comply with professional standards for data collection, analysis, and reporting. **M E**

Ensure people at all levels are knowledgeable, certified, trained, competent, and energetic for the tasks for which they are responsible. **M E**

**Data Area:**  
*Any Area*

**Best Practice**  
**DATA QUALITY STEP 2**

**Standards for Data Quality**  
**U.S. Department of Education**

**2. Is process well designed?**



Review design by peers, agencies, and staff. **M**

Preprint all available data. Limit times data are entered. **P**

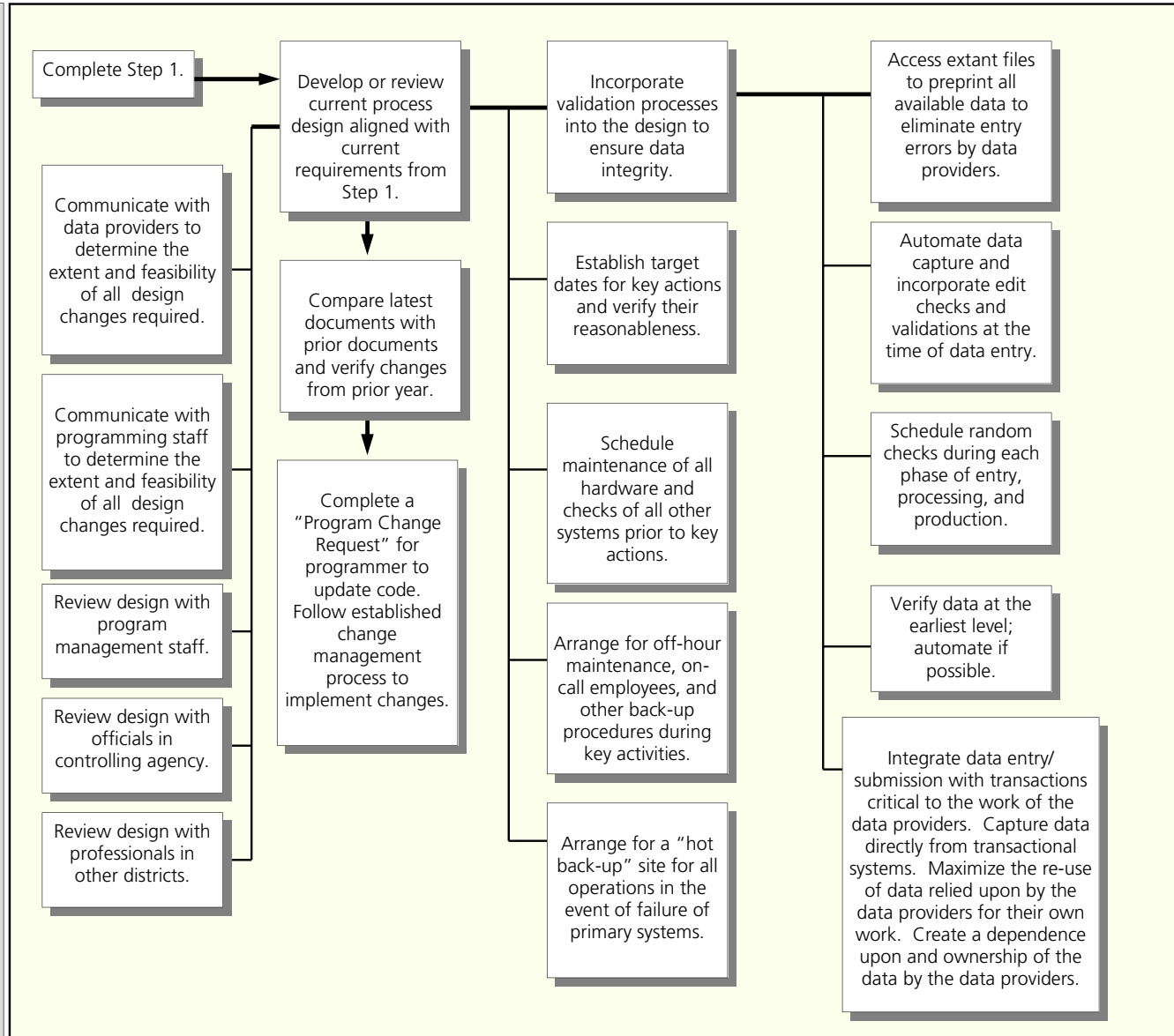
Use most automated/validated level of data entry possible (e.g. selection from codes in an automated application vs. filling in paper forms). **P**

Use random checks during production. **P**

Automate verification of entries at the earliest levels (e.g., upon key stroke vs. from printed audit report). **P**

Run maintenance before major production. Verify off-hour maintenance and staff availability. **P**

Ensure target dates are reasonable and clear. **M**



**Data Area:**  
*Any Area*

**Best Practice**  
**DATA QUALITY STEP 3**

**Standards for Data Quality**  
**U.S. Department of Education**

**3. Is process well documented and communicated?**

Accuracy

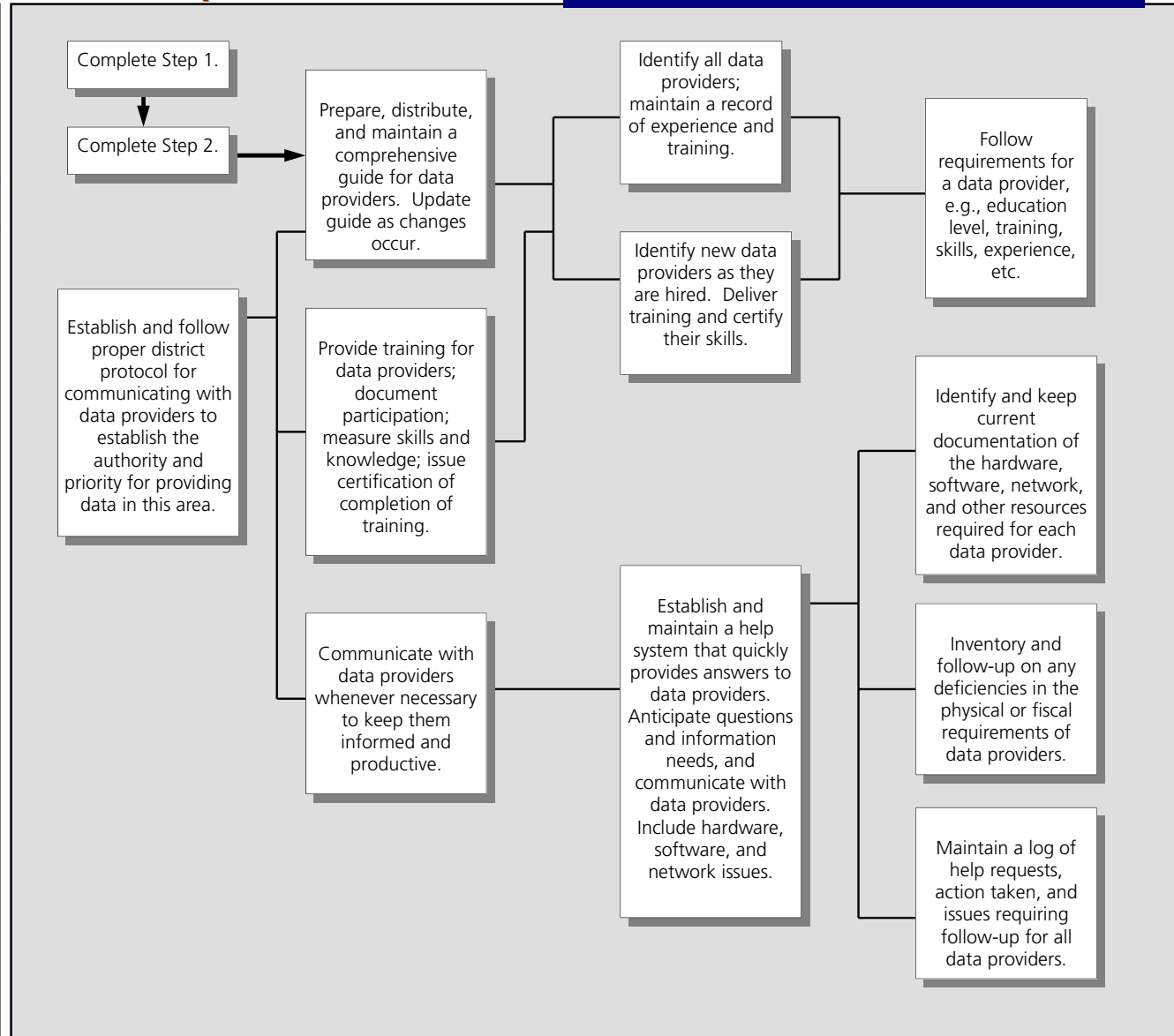
Timeliness

**Provide training and certification for data providers. Train all new staff.**  
**M P**

**Provide documentation for data providers and data processors.**  
**M P**

**Provide immediate help for data providers.**  
**M P**

**Ensure the physical and fiscal requirements are available (e.g., computer hardware, software, network, etc.)**  
**M P**



**Data Area:**  
*Any Area*

**Best Practice**  
**DATA QUALITY STEP 4**

**Standards for Data Quality**  
**U.S. Department of Education**

**4. Is process well implemented?**

← Accuracy →

← Editing →

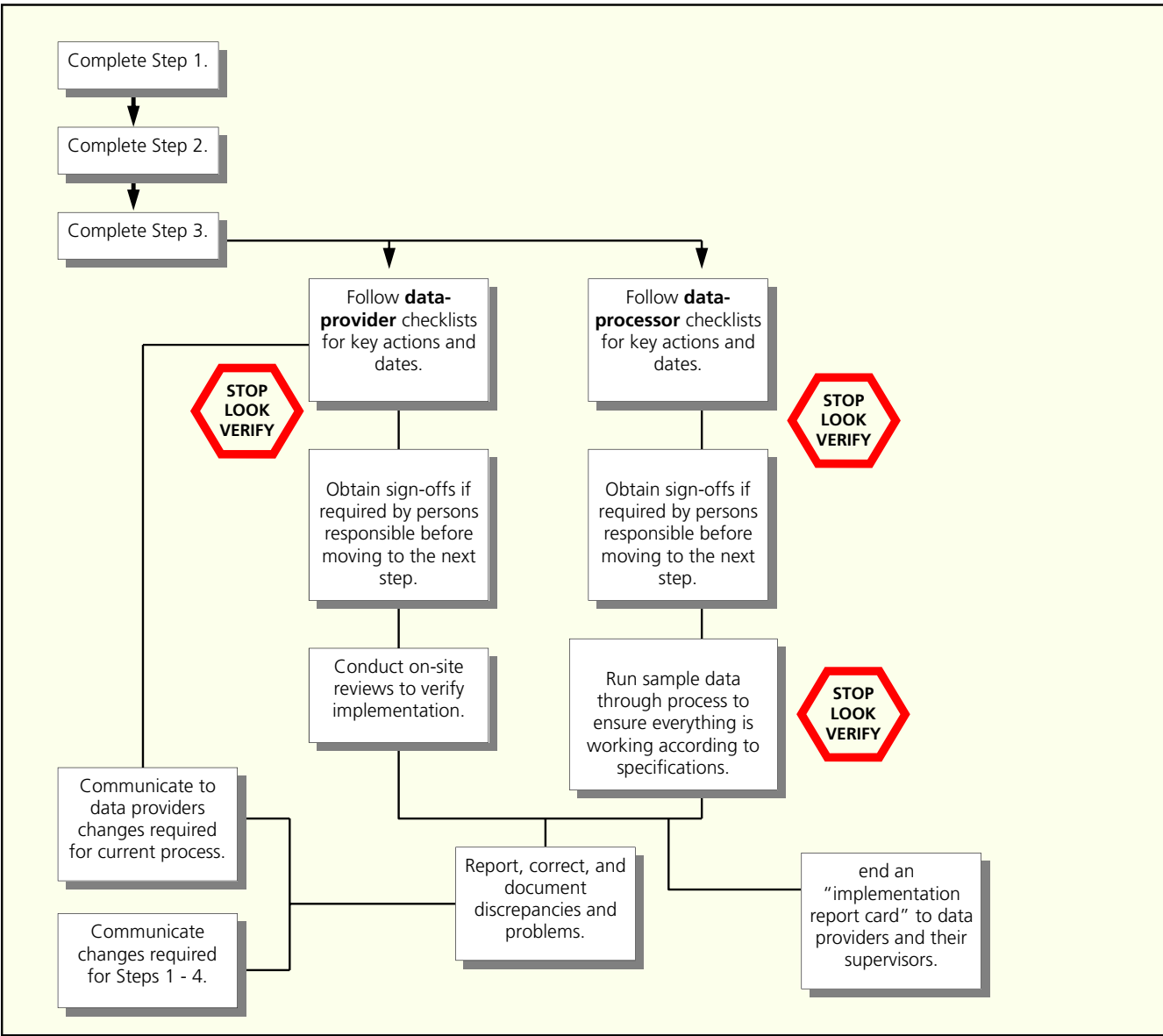
← Timeliness →

Use checklists and sign-offs for key steps.  
**P**

Run sample data and verify.  
**P**

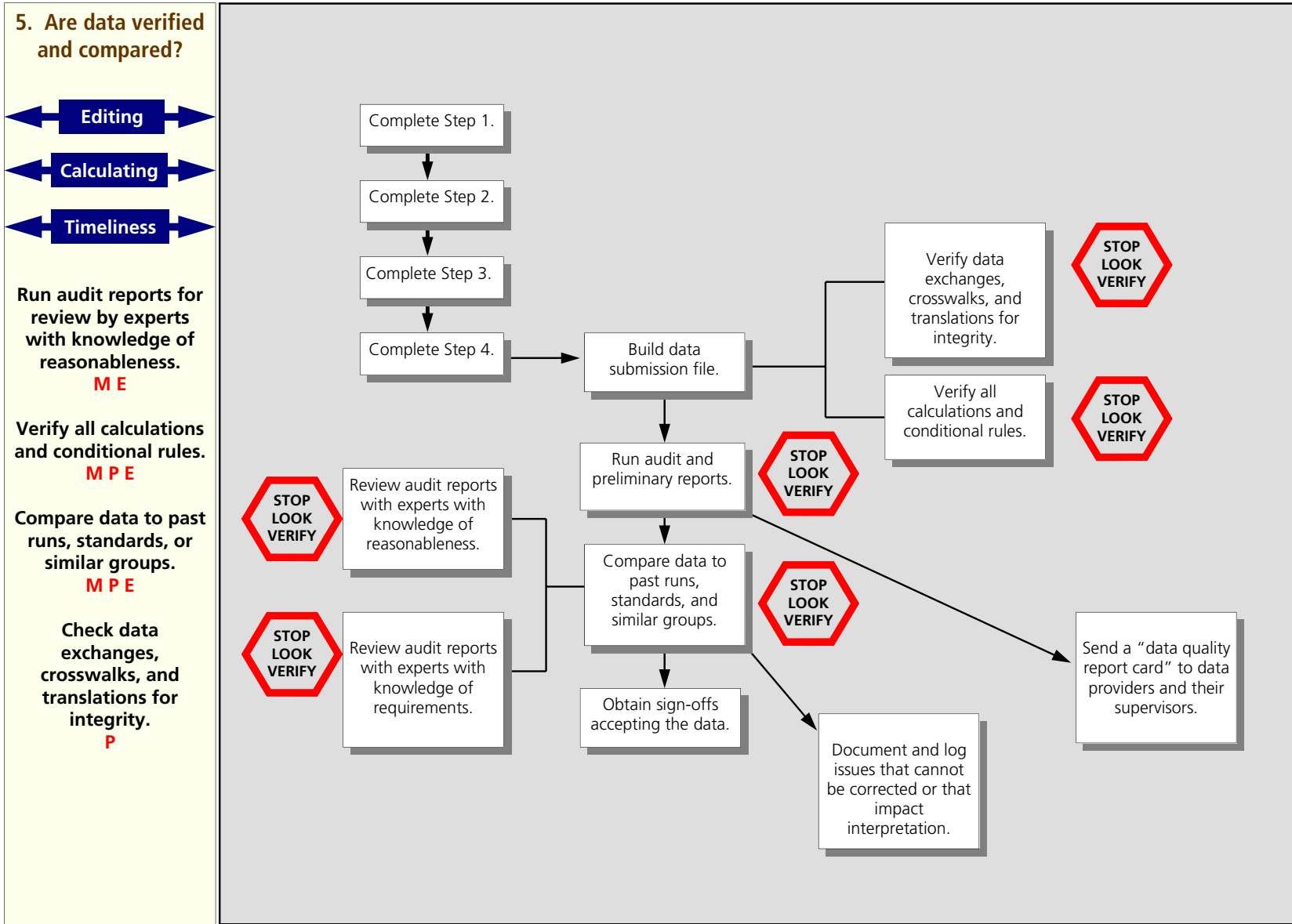
Ensure problems are reported, documented, corrected, and communicated back to the source of the problem or report.  
**M P**

Conduct on-site reviews during the process.  
**M P**



**Data Area:**  
*Any Area*

**Best Practice**  
**DATA QUALITY STEP 5**



**Data Area:**  
*Any Area*

**Best Practice**  
**DATA QUALITY STEP 6**

**Standards for Data Quality**  
**U.S. Department of Education**

**6. Are data appropriately analyzed and reported?**

Reporting  
Calculating  
Timeliness

Disclose fully conditions affecting interpretation of the data. **M E**

Review data with providers and others with a stake in the results. **M E**

Ensure analysis techniques meet the assumptions required for proper use. **M E**

Present conclusions fairly within a context for interpretation. **M E**

Publish technical reports or make available data files with detailed data for verification of analyses and statements. **M E**

Protect the confidentiality rights of individuals (FERPA). **M E**

