Data Quality

Issued **February, 2013**

TO: Nebraska Department of Education Staff

FROM: Roger D. Breed, Commissioner of Education

SUBJECT: Data Quality

CONTACT: Technical: Contact Data, Research and Evaluation at 471-2288.
                             Legal Questions: Contact the Agency General Counsel's Office at 471-7828.

PURPOSE

To set out the purpose and procedures for ensuring quality educational data is collected, stored, reported and appropriately used in the Department. Exceptions to the procedures and other requirements of this administrative memorandum may only be granted by written permission of the Commissioner or Deputy Commissioner. The following applies to data collections in the 2012-13 school year and beyond. Refer to Administrative Memorandum #709, DATA COLLECTION APPROVAL PROCESS for additional information.

SCOPE

Data Quality encompasses all data collected by the Department and includes but is not limited to the Nebraska Student and Staff Record System (NSSRS), the Consolidated Data Collection (CDC), the Grants Management System (GMS), Teacher Certification System (TCS), Nutrition Services (Colyar System), online systems, online collections, and data collected on paper forms. Vocational Rehabilitation and DDS are excluded.

ROLE

Define the processes and procedures to ensure NDE maintains and reports the most accurate data possible.

GUIDING PRINCIPLES

The guiding principles for data collection shall include but not be limited to:

- Collect data/information that is required, has a statutory or regulatory basis, or is required by the Commissioner or State Board of Education,

- Avoid redundant data collection whenever possible,

- Use consistency in format and common definitions,

- Consolidate reporting whenever and wherever possible,

- Get data right (accurate) the first time and on time,

- Maintain an official source of data for the Department (system or data of record),

- Always strive to publicly report the most accurate data available, and

- Always consider burden on the reporting agency.

Data from many programs across NDE are integrated into one system. All parts of this system must succeed in order for the NDE to meet its data needs and requirements. Data Quality depends on collaborative work within NDE and with Agencies submitting data to ensure accuracy, security, utility and timeliness in collecting, auditing, approving, and reporting. To achieve this Department must work to ensure that:

- Policies, procedures and practices are in place to support data quality in NDE and in Agencies required to submit data,

- Every Agency has designated at least one person who has had the opportunity to be trained in the necessary practices and procedures for data quality,

- NDE has an identified at least one Data Manager (owner) and at least one Data Coordinator (technical) who are responsible for data quality for every program,

- Data collection dates are required, defined in advance, and followed,

- Every collection allows time and an opportunity after submission for auditing data before it is considered final,

- Procedures are in place to audit and correct/change data when necessary

- Procedures and processes for reporting and auditing data are defined and made available to the Agencies submitting the data, and

- Tools and training are provided for NDE and Agency staff to improve the quality of data.

DEFINITIONS

Agency	School districts, nonpublic school systems, Education Service Units (ESUs), State Operated or Special Purpose Schools, Interim Program Schools, Postsecondary Education Institutions, or other entity that submits data to NDE
CDC	Consolidated Data Collection
Colyar System	Online system for Nutrition Services program and financial reporting
Data Coordinator	NDE staff member responsible for the technical component or for building the form or system to collect the data
Data Manager	NDE staff member responsible for the program that needs the data or information

Data Steward	Identified staff person in Agency who is responsible for submitting data and is the main contact person for data in the Agency
GMS	Grants Management System
NSSRS	Nebraska Student and Staff Record System
Sponsor	Office Administrator, Officer, and/or Deputy Commissioner responsible for programs that need to collect and use data
TCS	Teacher Certification System

COLLECTING DATA

The following applies to the collection of data elements and information through applications, reports and forms, including surveys. Guidance for grant applications is found in Administrative Memorandum #405.

1. A Data Manager (previously defined) and a Data Coordinator are designated by their respective Sponsors.

2. Data Manager and Data Coordinator identify

    a) Specifically what data is needed:

        i. why (statutory or regulatory basis, or approval by Commissioner or Deputy),

        ii. for what purposes,

        iii. who will need to report it,

        iv. how it will be collected,

        v. how it may be used once collected,

        vi. how it will be audited, and

        vii. where the data will be stored.

    b) Data Coordinators are responsible for checking the Data Dictionary (when finalized) and identifying if:

        i. data requested is already collected elsewhere to avoid duplication,

        ii. data can be derived or calculated from other data,

        iii. there is another better source of data,

        iv. data needs to be added to the Data Dictionary, and

        v. proposed data is personally identifiable information.

3. Sponsor brings proposed data collection to the appropriate group for approval

    a) Data elements – NSSRS Executive Committee

    b) Grant applications – GMS Executive Committee

    c) Surveys or financial – Sponsor

4. Data Managers and Data Coordinators identify the reporting timelines for data collections which need to include:

    a) A **due date** when forms or submissions must be turned in or submitted.

    b) An **auditing window following the due date**. The length of the auditing window may vary but must allow sufficient time for Data Managers to audit the data and contact Agencies to provide assistance in resubmitting corrected data. **Suggested minimum length for the auditing window is two weeks** . Changes, including corrections and additions, to submitted data are allowed during the auditing window.

    c) A **final date** when data are considered complete.

        a. For data collections that remain open throughout the year, the final date is the date when data will be used as the official data for reports, research and data requests.

    d) If a due date needs to be extended, the auditing window and final date also need to be extended.

5. Data Managers and Data Coordinators identify the dates when NDE will send or make available data or compiled data to Agencies such as cohort graduation rates, highly mobile student counts, preliminary AYP (Adequate Yearly Progress) results, NeSA assessment results, NePAS rankings, etc.

6. Proposed dates must be coordinated with the Helpdesk and the NDE Master Calendar to minimize multiple reports with the same due dates unless it is advantageous to the reporting Agencies.

    a. These dates must be jointly decided, identified in advance, and clearly communicated to NDE and agency staff.

    b. Due date and final date are added to the Master Calendar.

7. Data Collections, including surveys, must be reviewed and approved through the process in Administrative Memorandum #709.

8. For security, all data collections must use the NDE Portal except for:

    a. Surveys, including online surveys

        i. If a proposed survey or data collection would include personally identifiable data on staff or students, it must be a submitted through the NDE Portal or a secure access system.

    b. Data collections from individuals outside of school systems or Agencies (example: parents).

    c. Data collections from a limited number of Agencies approved by the Sponsor based on cost/benefit considerations.

9. Once approved, Data Managers

    a) Develop guidance and/or instructions, business rules for how data may be used

    b) Provide training opportunities for NDE staff and Agencies

    c) Notify all Agencies that will need to report. All Agencies that will need to submit a new data collection or data element should have advance notice, preferably of an entire school year, if possible.

10. Data Managers and Data Coordinators develop tools and test for ensuring data is accurate. Tools, such as validations and verification reports, must be tested to ensure accuracy and appropriateness.

11. If a data collection is supported by a vendor, the Sponsor leads in communication and coordination with the vendor and Agencies.

AUDITING DATA TO ENSURE ACCURACY

Data Managers and Data Coordinators need to define the processes used to audit their data for accuracy. These processes might include:

1. Using longitudinal data for comparison, if available

2. Examining data for:

    Inconsistencies,

    Outliers,

    Completeness,

    Inappropriate situations (atypical patterns),

    Duplicates,

    Changed individual demographic data (i.e., Birthdates),

    Changed program data, and

    Student promotions of more than one year.

3. Previewing reports such as the State of the Schools Report prior to publication.

4. Publishing a set of business rules for Agencies to use in auditing data calculations used in reporting.

CHANGES TO DATA OR SUBMISSIONS

Data will be used for reports that NDE submits to the Federal government and for public reporting (example: State of the Schools Report or SOSR) as it exists on the final date. No data, accountability decisions (i.e., NePAS, AYP), or data download files will be changed on the SOSR after it is released to the public. The pages in the SOSR need to have notice of the date when data were used.

Starting with data collected in 2012-13, any changes to data after the final date or late submissions are allowed only through an approved request. A program in the Consolidated Data Collections (CDC) in the NDE Portal will be used by any Agency to submit these requests. The program will direct the request to the Data Manager and Sponsor. The Sponsor will bring the request to the NSSRS Executive Committee for review. The NSSRS Executive Committee will make a recommendation for approval or disapproval and submit the request to the Commissioner or Deputy who has the final decision. Requests need to be reviewed by the NSSRS Executive Committee, rather than a single sponsor, since data are used by many programs and for multiple purposes.

TRAINING

NDE has the responsibility to assist Agencies in maintaining and submitting accurate and timely data. The Data, Research and Evaluation team and Helpdesk staff will work with Data Managers and Data Coordinators to provide training and support such as:

- Training for NDE staff on data quality, access and use policies,

- Guidance and instructions, including file structure and valid code sets for the data collections in NSSRS,

- Workdays, on-site or ESU, to assist with submission of data,

- Training in policies, practices and procedures for Agencies to support data quality,

- Training in tools and auditing procedures to help Agencies improve data quality, and

- Optional guides (e.g., videos, how-to sheets, checklists, telecasts).