Impact of Legislated Data Collections/Elements on CDE and Local Education Agencies CDE Data and Research Unit, December 2007

When new elements/formulas or entirely new collections are required by legislation or rule, the Colorado Department of Education (CDE) and districts/BOCES must be given adequate time to address the upcoming changes. Appropriate and advance notice is necessary to ensure that data will be available in the format needed. Within the department there is a complex series of tasks that must be completed before new requirements are rolled out to the districts. Local school districts and Boards of Cooperative Educational Services (BOCES) also must take varied steps to carry the new requirements to fruition. A limited analysis of recent or current data collection requirements conducted for the 2006-07 First Annual Report to the State Board of Education and the Education Committees of the Senate and House of Representatives revealed that the time span between adoption of the law/rule and the opening of the data collection with all changes intact can range from as little as eight months to as many as 35 months. The Legislature passed HB 07-1320 Data Reporting and Technology Act which codified a schedule for changes in data requirements. This legislation recognizes "that the department

changes in data submission requirements:" · Notify school districts, schools and vendors of new federal or state data submission requirements within one business day of passage through an e-mail process CDE conduct informational meetings

must allow school districts and public schools the necessary time in which to comply with

- Schools districts comply within 90 days of website update • State Board has 90 days to promulgate rules after the effective date of the legislation that alters data collection requirements • School districts and schools have 90 days to reformat data systems after the
- publication of the rules

• Update CDE website within 60 days of notice of change

- Within CDE
- Colorado Department of Education staff must execute the multiple steps below in order to implement new data requirements.
- This series of tasks must be performed prior to opening the impacted collection to school districts and BOCES for submission. Although the tasks appear to occur sequentially, many of them may occur concurrently.

These new data demands impact a variety of team members throughout the organization.

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CDE collection owner responsibilities:
Notify school districts/BOCES of new federal or state
                                                                   inform vendors of new federal or state data
          data submission requirements
                                                                             submission requirements
 notify charter schools of new federal or state data
                                                                   gather school district/BOCES input regarding
             submission requirements
                                                                          current data collection efforts
   collect school district/BOCES feedback about
                                                                   meet with school district/BOCES information
        preferred data collection practices
                                                                               system users groups
  explore ways to expand functionality for school
                                                                       investigate data collection practices
                districts and BOCES
                                                                                  in other states
                                                                   investigate data collection resources from the
  look into data reporting practices in other states
                                                                      National Center for Education Statistics
                                                                         share results of feedback sessions
        summarize results of input sessions
                                                                     assemble a collection advisory panel of school
          determine key CDE stakeholders
                                                                 district/BOCES data experts to ensure accurate business
                                                                     rule definitions and relationships, if necessary
    schedule collection advisory panel meetings
                                                                  prepare for collection advisory panel meetings
                                                                     if rules required, complete State Board of
     attend collection advisory panel meetings
                                                                        Education agenda summary sheets
 prepare for State Board work sessions or meetings
                                                                          if rules required, draft rules for
          as appropriate, if rules required
                                                                              data collection efforts
 obtain rules input from collection advisory panel,
                                                                  if rules required, ensure advisory panel input at
                  if rules required
                                                                              State Board meetings
  rewrite rules if necessary from public comment
                                                                  if rules required, revise rules as necessary from
            from State Board meetings
                                                                            State Board member input
                                                                   if rules required, communicate rules to school
  edit rules until State Board approval is obtained
                                                                         district/BOCES superintendents
inform school district/BOCES data liaisons of rules,
                                                                 design respondent information form for districts
                  if rules required
                                                                            to obtain access to system
   generate file layouts, either new collection or
                                                                            define new data elements.
         changes within existing collection
                                                                    produce documentation for or edit existing
         provide definitions for new fields
                                                                          documentation on CDE website
create errors which data providers must fix to move
                                                                 design warnings that will assist data providers to
            to next level of submission
                                                                                    clean data
  generate data summary reports so districts can
                                                                     design superintendent certification page
         ensure data quality and accuracy
        coordinate with other CDE Units and
                                                                      document project throughout duration
             data experts as necessary
 complete Educational Data Advisory Committee (EDAC)
                                                                  attend EDAC meeting to present new collection
     Review of Proposed Data Collections two weeks
                                                                               or collection changes
               prior to EDAC meeting
                                                                     attach EDAC approval stamp to collection
               obtain EDAC approval
                                                                                  documentation
  refine system requirements with IMS throughout
                                                                     meet with an IMS programmer/analyst to
                 the entire process
                                                                          establish system requirements
                                                                        review specifications with primary IMS
 hold a session with an IMS programmer/analyst to
                                                                  programmer/analyst regarding missing components
       establish maintenance requirements
                                                                               or miscommunications
   continuously review of system requirements to
                                                                   attend regularly scheduled status meetings to
         identify gaps and logistical issues
                                                                               update requirements
 revise specifications on an ongoing basis to meet
                                                                              develop a training plan
               data collection needs
  arrange for training sessions in multiple regions
                                                                    work with Web Support to design training
                    across state
                                                                                   registration
                                                                     coordinate training with other impacted
          create PowerPoint presentation
                                                                                    CDE units
       prepare collection training handouts
                                                                      duplicate collection training handouts
                                                                    alert Regional Managers regarding training
  train school districts/BOCES within each region
                                                                                  within regions
provide technical assistance to district/BOCES data
                                                                       give technical assistance via e-mail to
                                                                           district/BOCES data contacts
                contacts via phone
prepare Frequently Asked Questions (FAQs) documents as
                                                                  plan for meeting reporting requirements for the
  necessary to clarify common data issues arising from
                                                                    Education Data Exchange Network (EDEN)
                   districts/BOCES
      schedule knowledge transfer meetings
                                                                     prepare for knowledge transfer meetings
               for relevant CDE staff
       conduct knowledge transfer meetings
                                                                      submit district data in test environment
thoroughly test each system error for every level of
                                                                         test preliminary file layout errors
              the submission process
                                                                   submit test correction issues to primary IMS
           sample test system warnings
                                                                                project consultant
                                                                  verify district data summary reports displaying
           repeat testing cycle as needed
                                                                               intended information
   provide summary report issues to primary IMS
                                                                   double check data summary report accuracy
                project consultant
                                                                     after additions/corrections programmed
  offer CDE wide training to interested colleagues
                 CDE programmer/analyst responsibilities:
  determine whether existing system modifications can
                                                                 ensure the collection has been presented to EDAC
fulfill the business requirement or whether development
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meet with collection owner to establish

maintenance requirements

generate a Business Feasibility Study

follow Project Development Notebook

Guidelines to generate notebook

develop applicable use cases

determine key stakeholders

assign primary IMS project contact

formalize requirements

create a detailed project plan

participate in status meetings as necessary

define file layouts

of a new system is required

meet with collection owner

to establish system requirements

investigate current data collection practices

develop a system notebook

create process flow/ data flow diagrams

create a work breakdown structure

determine with IMS management,

relevant staff availability

create initial work plan

conduct relevant customer interviews

determine schedule for completion

define required database schema tables

adjust status meeting schedule as necessary define tables analyze specifications for missing components revise specifications on an ongoing basis or miscommunications to meet system needs generate Respondent Information Form develop needed ERD/UML data base diagrams perform required programming for forms perform required programming for reports perform required programming for scripts perform required programming for tables complete technical tasks develop a test plan perform detailed unit and global testing scripts develop a implementation schedule develop User Acceptance Test (UAT) plan conduct preliminary test environment UAT obtain customer signoff for develop production implementation production implementation plan/schedule prepare Automated Data Exchange system to complete documentation of IMS process accept new series of collection submissions implement system to production obtain final customer and IMS signoff complete system notebook open collection system Within School Districts/BOCES Colorado school districts have a wide range of capabilities to meet the demands of new elements/formulas or entirely new collections. Some districts house locally designed or purchased information systems which allow a direct pull of data into the format required by the department. Changes to automated systems can be costly or involve considerable time before necessary alterations can be addressed. Other districts have some degree of automation, but they also rely on manual processes to prepare data for the department. The least automated school districts use spreadsheets or Access databases to ready the required information. Districts with various informational capabilities may need to contract consultants to address the data demands, depending on existing resources. Costs associated with the production of new data elements or new collections can vary greatly and can impact school district finances to different degrees. Regardless of school district size or resources, each must follow the general steps below to address new data requirements. **District/BOCES responsibilities:** analyze new state or federal legislation provide public comment at State Board/CDE to determine district/BOCES impact meetings, if inclined and possible inform vendors or district technology unit of new determine key staff and technology stakeholders federal or state data submission requirements notify charter and district schools of new state or gather school input regarding current/desired federal data submission requirements, if applicable data collection efforts meet with information system users groups participate in collection advisory panel meetings, regarding changes, if appropriate if applicable provide input to collection advisory panel, if rules adopted, communicate rules to if requested school data liaisons be aware of crosswalks between relevant review documentation on CDE website once posted

alert primary CDE collection owner of test perform testing correction issues

coordinate with CDE and other districts/BOCES data

experts as necessary

determine whether an existing collection system can

fulfill the business requirement or whether a

new system is required

meet with applicable vendor or district technology

department to review needed system requirements

formalize district or vendor system requirements with a statement of work or work breakdown structure

complete technical tasks

participate in system status meetings as necessary

correct district or vendor system issues as necessary

review and audit collected data

provide technical assistance to school data contacts via phone **CDE collections**

meet with impacted district/BOCES staff to review system change requirements

determine data collection method,

if fields not in system currently

 $review\ specifications\ with\ applicable\ vendor\ or$

technology unit regarding missing components or

miscommunications

continuously analyze specifications for missing

system components or miscommunications

develop a systems crosswalk between vendor or

district product and CDE coding structure, if needed

adjust system status meeting schedule

as necessary

develop a systems test plan

submit data to the CDE

communicate system test issues review revised product to identify gaps and to appropriate individuals logistical issues participate in pilot collection submissions, repeat testing cycle as needed if possible distribute CDE-prepared Frequently Asked Questions revise specifications on an ongoing basis (FAQs) documents as necessary to clarify to meet system needs common data issues develop a training plan arrange for training sessions schedule knowledge transfer meetings prepare for knowledge transfer meetings for relevant district staff coordinate training with other impacted create PowerPoint presentation district personnel

duplicate collection training handouts prepare collection training handouts conduct knowledge transfer meetings train school data liaisons implement district or vendor system determine schedule for system implementation using a work/project plan into production ensure new data is collected, extract data for collection if data not in current system