

STATEMENT OF NEED AND REASONABLENESS FOR PROPOSED RULE CHAPTER 3560

Authority

The legislature has mandated that the State Board of Education adopt rules in the following areas:

1. Data Standards.
2. Creation of Regional Management Information Centers.
3. Transfer of affiliation by a district from one region to another.
4. Use of Alternative Management Information Systems.
5. Review and approval of annual and biennial regional plans and budgets.
6. Use of cost accounting procedures to delineate school district use of computer resources.

This authority is specified in M.S. Sec. 121.931, Subds. 6, 7, and 8.

Background

In the early 1970s, school districts were having financial difficulties which were unrecognized or hidden from review because of the accounting methods being used.

As a result of the legislative review process, the Department was required to develop the Elementary, Secondary, and Vocational Information System (ESV-IS), an administrative data processing system for educational agencies, and did so through the Minnesota Educational Computing Consortium (MECC). Concurrent with this was the development of the Uniform Financial Accounting and Reporting Standards (UFARS) which govern all financial transactions and provides comparable reporting by each district.

When the later seventies saw the development of microcomputer technology, the Regional Computer Center mainframe computer and its associated communications network was no longer the only option for administrative data processing. Systems were developed by commercial vendors for use on microcomputers located in district offices.

Administrative data processing is different than instructional computing in that administrative computing can be processed in a batch mode for overnight delivery, or on-line with immediate feedback, and requires storage of data on both a short and long term basis. Because of this, the legislature established seven regional computing centers which would not only deliver administrative computing to districts, but would also provide technical assistance, and would transfer data from school districts to the state. When the regional computer centers were established, the

legislature mandated the use of UFARS for all financial accounting systems and financial reporting, each district had to affiliate with a regional computer center and use state determined data elements in their reports.

The areas in which the legislature is most concerned are the uniformity of the data used by districts to report to the state, the ability of a district to transfer from one regional center to another, the need to establish more or fewer regional computing centers, and controls over the plans and budgets of the regional centers. The legislature requires the State Board to establish specific criteria by which:

1. Data elements are identified and selected to be included in the data element dictionary and the criteria by which data collection instruments are selected to be included in the data acquisition calendar;
2. Regional management information centers are established;
3. Districts may transfer between regional centers;
4. Alternative management information systems are approved for use by a district; and
5. Annual and biennial plans and budgets are approved. Incorporated into this process is the use of cost accounting procedures to account for services received by districts of the region.

Chapter 3560 is specifically established to contain the rules which meet this legislative mandate.

3560.0010 - Definitions.

The terms used in this part are included in order to avoid any confusion between their use in rule and in statute. Specific reference is made to the term "district" as defined in M.S. Sec. 121.93, Subd. 2, because within the legislation on education, "district" is variously defined in several statutes. In this rule, district means "a school district, an educational cooperative services unit, a cooperative center for vocational education, a cooperative center for special education, an area vocational technical institute, or an intermediate service area." (M.S. 121.93, Sec. Subd. 2) The definition does not include ESV computer centers, since they are the subject of the rule.

The other terms in this part have the meanings given them in statute or are self-explanatory.

Those terms referencing statutes are included not only because of their specific legal meaning, but also to automatically incorporate into the rule any changes made through future legislation, thus avoiding the time and expense of revising the rule.

The ESV Regional Computer Center (Subpart 7) is referenced in M.S. Sec. 121.932, Subd. 5, the same entity is also identified as a regional management information center in M.S. Sec. 121.935, and is frequently referred to in the colloquial by the term "regional computer center." Since these terms refer to the same legal entity, they are used synonymously in the rule.

While the computer provides the capability of processing immense amounts of data, it also places a great responsibility on the users of the data to clearly specify their needs and to better plan their data collection efforts. Recognizing this, the legislature required the State Board to develop and publish a Data Base Element Dictionary (DBED) and an Annual Data Acquisition Calendar (ADAC), and to establish the criteria and process used for determining which data and data elements are included in the dictionary and calendar.

In order to understand the rule and its rationale, the language of the statute must be clarified. In M.S. Sec. 121.931, Subd. 6, there is the mandate to adopt rules containing standards for data which shall include a set of naming conventions for data elements, data element definitions, transaction methodology, mathematical computations, and output formats. In M.S. Sec. 121.932, Subds. 1, 2, and 5, there is the mandate to maintain a data element dictionary defining data elements, a data acquisition calendar specifying the reports districts are required to provide the Department, and a list of essential data elements. In M.S. Sec. 121.931, Subd. 8, the Board is required to adopt rules specifying the criteria and process for determining which data and data elements are included in the data dictionary and data acquisition calendar. In M.S. Sec. 121.932, Subd. 3, the data element dictionary, annual data acquisition calendar, and essential data elements are exempt from the administrative procedure act governing the process to establish rules.

Each of the terms used in the statutes are good and proper terms used in the field of computer technology and everyday language. The statute appears to use the term "data" and "data element" synonymously. The American Heritage Dictionary of the English Language (New College Edition, William Morris, Editor, 1979), defines data as "1. information, especially information organized for analysis or used as the basis for a decision. 2. numerical information in a form suitable for processing by a computer." The American National Dictionary for Information Processing (American National Standards Committee, 1977), defines data as "1. a representation of facts, concepts, or instructions in a formalized manner suitable for communication, interpretation, or processing by humans or by automatic means. 2. any representations such as characters or analog quantities to which meaning is or might be assigned." In summary, data is fact.

At the present time, the dictionaries do not give a specific definition to the term "data element." According to The American Heritage Dictionary, the word "element" is defined generally as "a fundamental, essential, or irreducible constituent of a composite entity" and in mathematics it "is a member of a set." A set "generally is a group of persons or things connected by or collected for their similar appearance, interest, importance, or the like." In mathematics, a set is a "collection of distinct elements." In the dictionary for information processing, an "element" in a "set" is "an object, entity, or concept having the properties that define a set" and is "synonymous with member." The term "member" is not further defined. A "set" is defined as "a finite or

infinite number of objects of any kind, of entities, or of concepts, that have a given property or properties in common." The concept of a "data element," then, is a group of facts having the same characteristics.

In the common usage by data processing personnel, the terms "data" and "data element" are distinctly different. "Data" is "a fact." "Data element" is a set of characteristics about the fact. For example, a student is in "grade 10." The "data" is the number "10." The "data element" is the known characteristics about the number "10." It is a positive number, two characters in length, belongs to the group named "grade." If the group of numbers named "grade" are processed in a computer system with a data element dictionary, then the group named "grade" would have other descriptors added such as the COBOL name used in the computer program (e.g., GRD) a picture of the group (e.g., PIC = 99), the number of times it may appear in the list of all the data elements (e.g., OCCURS = 1), the definition of the term (e.g., the academic level of the student), and the name of the file (or data set) in which it appears (e.g., data set = student grade). All of these items are descriptors of the group of facts (i.e., data element) named "grade" having a fact (i.e., data) of "10."

If a school district wants a report (e.g., a class list) of students in grade 10, staff would look in each student's record and write down the name of the student when a "10" appears in the data element "grade." The final list of names would be called a "file" or "data set." and be located someplace in the computer along with other data sets. The complete group of data sets is called a "data base." The data sets and data base contain only the data itself. They do not contain the data elements, i.e., the list of characteristics about the data. The data elements are contained all together in a data element dictionary. The dictionary describes the characteristics of the data, including the names, definition, transaction methodology, mathematical computation, and output formats. Requiring that a data standard includes each of these characteristics is in fact creating the standard of the content of the data dictionary. Otherwise, there would have to be a rule adopted for each of the thousands of data elements in use. This appears contrary to the exemption of the data dictionary from the administrative procedures act.

In summary, the statutes appear to require the following:

1. There must be a data element dictionary containing the list of data elements in the SDE-IS, ESV-IS, and essential data elements.
2. Each data element must be described by the following characteristics:
 - A. Name.
 - B. Definition.
 - C. Transaction methodology and/or mathematical computations used to create the data.
 - D. The picture of how the data finally appears when it is processed by the computer.

Subpart 1 establishes that there is a data dictionary which contains, and is restricted to the data elements in the SDE-IS, ESV-IS, and essential data elements. The additional requirement that the data dictionary refers only to data received from districts or ESV regional computer centers was a recommended limitation of the advisory task forces on uniform data standards and there appears to be no major reason to reject that recommendation.

With the mandate that all districts perform their accounting and reporting according to the Uniform Financial Accounting and Reporting Standards (UFARS), the legislature established the UFARS Council with the responsibility to establish, clarify, and maintain accounting methodologies, structure, and terminology. Recognizing that the UFARS Council had already established the standards for financial data, these standards were mandated into the rule as the standards for all financial accounting and related property data.

Subpart 1(B) enforces the statute to require that financial and property data conform to UFARS. Subpart 1(C) refers to the criteria in the statute, as explained above, for the other types of data and adds the system descriptors which include the output format and the values of the data itself.

The second requirement of the statute is to establish criteria for the annual data acquisition calendar. There are no data or data elements in the calendar. The calendar is a list of the forms for the collection of data from districts. Therefore, when a sponsor of a form wants to collect data from districts, the sponsor of the form must follow the process outlined by the Data Acquisition Review Committee (DARC).

In 1982, the Department established the DARC with majority membership representative of school districts, plus staff from the major data users within the Department. DARC recommended, and the Commissioner approved, the process that all forms or other data collection instruments had to be reviewed by the DARC before they could be sent to school districts. Should a form not have a DARC review, school districts can ignore it. This review by the DARC has proven so successful that the number of forms used by the Department has decreased from over 600 to less than 200 forms. The DARC will continue to review forms and other data collection instruments and, applying the criteria adopted by the Department, make recommendations for their approval and inclusion in the data element dictionary and data acquisition calendar.

The criteria incorporated in this rule mirrors the decisions of the DARC.

1. Approval is given to include the data collection activity in the ADAC when the sponsor of the form establishes the relationship between the need for the data and the requirement of the law or rule.
2. The legislature funds a major portion of district costs. The basis upon which a district is entitled to receive its allocation of state funds is related to such factors as the number of students, geographic location, property valuation, type and size of various educational

programs, and many more. Data about each factor used in the formula comes from many sources, one of which is the district itself. When it is established that the allocation of funds is dependent upon a specific data collection effort, the data collection instrument and its data elements are approved.

3. The Department is held accountable for the establishment, continuance, funding, and approval of a great number of educational programs and projects. In order to ensure the proper use of public funds, both budget and expenditure reports and program operation reports are needed. If a form under review by the DARC is shown to meet this need, that form is approved.
4. Although there is an implied authority to collect data to monitor compliance with laws and rules, this is a separate criteria because of the emphasis placed on this responsibility of the Department and the ESV Computer Council.
5. Periodically, the Department engages in special projects, temporary programs, research and analysis of policies and proposals. When these occur, the sponsor with a need to collect data must follow the same process for approval of his/her data collection project as does the sponsor with any of the other needs. Since the project may be short lived, the form may not be published in the Annual Data Acquisition Calendar (ADAC).

Since the DARC began applying these standards, approximately half a dozen forms have not been approved each year. Although DARC approval is advisory to the Commissioner, generally only DARC approved forms have been approved by her. Since these criteria have stood the test of time, they are incorporated into the rule.

3560.0030 - Creation of Management Information Centers.

This part provides the criteria and the process by which a new regional management information center may be created. The requirements that at least two districts are needed to form a region, and that the effective date is July 1 of any odd-numbered year are established in law (M.S. Sec. 121.935, Subd. 1) and repeated here to establish the timeframe for the supporting documentation and administrative process and to amend the rule without going through the rule making process should the legislature change these requirements.

There are three major components to the creation of a new regional computer center. They are:

1. The ability of the proposed center to perform the duties required of it.
2. The economic impact on the districts creating the center and the member districts in the regions where disaffiliation takes place.
3. The timeframe in which the notice of intent, analysis and approval, and transfer occurs.

Subpart 2, items A through D, are established to assure the member districts and the state that the proposed regional center is viable and can meet its obligations to perform these duties as specified in M.S. Sec. 121.935, Subd. 2. Documentary evidence relating to each of the items must be submitted by the applicant to the State Board.

Subpart 2, item E addresses concerns relating to the cost of services to the districts. By statute (M.S. Sec. 121.935, Subd. 6) and as a condition of the original joint powers agreement, a disaffiliating district is obliged to continue payments to the region of disaffiliation for those computers and other capital items acquired when the district was a member of the region, up to the date when notice of disaffiliation was served.

Computers and related capital equipment are not purchased incrementally; they must be purchased in "chunks" of capacity. Thus, a computer designed to serve one hundred districts cannot be sized downward to service ninety-nine or upward to serve one hundred one. When a computer is purchased, it is sized to produce the computing power needed today and in the foreseeable future, generally five years. It is generally recognized that the useful life expectancy of a computer is five years, less if the demand for services rises above projections, and more if the demand is below expectations. The usual lease/purchase agreement is for five years. Depending upon when the notice of disaffiliation is served, a district may have, at most, four additional years' obligation to pay off existing equipment.

Subpart 2, item E, also sets the standard for the cost comparisons. The elements of cost which must be used are those services which are

equivalent, but not necessarily the same. Thus, if the districts want less service than they are getting from their previous regional centers but may have been paying for more, or if they want more but could not get them, the total costs to the districts would not increase. This criteria conserves public funds and makes the creation of a new regional center dependent on cost efficiencies incorporated in the new center.

Subpart 3 specifies who and when notice must be served so that work schedules can be established to review the proposal. The requirement for a one year notice or otherwise is M.S. Sec. 121.935, Subd. 1.

In Subpart 4, it is recognized that the creation of a new regional center will have an economic impact on the member districts of other regions. This should not be the controlling factor whether or not a new regional center can be established. On the other hand, the one year period may not be sufficient for the regions of disaffiliation to make necessary adjustments in staff or equipment, thereby causing an increased financial burden on the remaining districts. Subpart 4 provides for and limits an additional adjustment period of two years. This really equates to three years if the notification period is included. This length of time is enough to develop specifications, order and install new central computing equipment, and effect staff reductions.

The delay must be based on a finding that there would be a financial hardship on these regions. Financial hardship is defined as an inability to reduce costs and/or increase fees to the level needed to pay the remaining operating expenses for those services and equipment used by the disaffiliating district. Because there can be a great number of variables involved, each situation will have to be examined and judged individually. Variables which may make either little or much difference include: the age of the current equipment, size and number of districts leaving, remaining terms of equipment leases, types of services used by departing districts, projected attrition rate of staff, and number and location of regional centers affected. Other factors may also emerge since there is no experience creating new centers and to date all transfers have been friendly.

Subpart 5 simply assures the new region that it will get its fair share of the funds appropriated by the legislature. Since the current allocation formula is established by the Department, this prohibits the Department from assisting the new region or existing regions unfairly.

In summary, this rule allows for the disaffiliation of districts from existing regions in order to create a new region, assures that public funding is not increased, and that districts are not forced to remain affiliated with a region which does not meet the needs of the districts.

3560.0040 - Transfer of School District Affiliation.

When one district decides to disaffiliate from its regional computer center to affiliate with another, there is no need to show that the new region of affiliation can perform the computer services needed by the district, and while the district has the same obligation for the debt of the disaffiliating region, it does not necessarily incur a new obligation for debt existing in the new region of affiliation. When a district wishes to transfer from one regional center to another, either everyone agrees the transfer is appropriate, or someone protests the transfer.

If everyone agrees, there is no valid reason for the State Board to deny the request, so the transfer will be approved as requested.

In a transfer which is contested, the basic issue is economic, usually relating to the immediate increased cost to the remaining districts, especially if a large district leaves. This rule provides a buffer period during which the region can lay off staff, downgrade its computer, or take other steps necessary to reduce costs. If the protesting region can show that its remaining member districts would experience hardship, then the State Board has the same option as with rule 3560.0030, subpart 4, to delay the effective date of transfer for up to two years to allow for an orderly reduction in costs. The Board does not have the option to prevent the transfer.

3560.0050 - Alternative Financial Management Information Systems.

Recognizing that it is feasible and sometimes desirable for a school district to use a financial, accounting, or property data processing system other than the ESV-IS, the legislature allowed the use of alternative systems provided there is not any distortion in the accuracy of the reports submitted to the Department. By conforming to UFARS and the data element dictionary, any system which is developed for use by a school district must keep records and make reports the same as all other districts, thereby making data comparable across districts.

Statute requires that each district planning to use an alternative management information system must make application to the State Board, the ESV Computer Council, and the regional computer center to which the district is affiliated. The proposal must provide detail data on costs, ability to comply with UFARS, and ability to meet state reporting requirements. (M.S. Sec. 121.936, Subd. 2 and 3). In reality, this requirement for such detail data obstructs and prevents the intent of the statute because the effort required by a district to gather all of the data necessary to submit a proposal exceeds the capacity and ability of the small school districts. Small districts do not have computer specialists and accountants on their staff. These districts need and use a "cookbook" approach, meaning they follow prescribed formulas and rely on regional experts to assist their staff when difficulties arise.

When the legislature allowed the use of alternative management information systems, the only district proposing to use one was Ortonville. This district had staff with the competencies to develop a UFARS compatible system on a microcomputer. Since this was the only proposal, it became the model. However, when districts were relieved from using only the ESV-IS, commercial vendors saw an opportunity to sell UFARS compatible systems to small school districts. As a result, alternative management information systems have been developed for sale to districts. It is now apparent that multiple examinations of the same system will occur if each district buying the same commercial system has to go through the full process of developing cost data, proving UFARS compatibility, and assuring state reporting capacity.

To avoid unnecessary duplication, a two phase approach is being used. The first phase consists of an examination of the system by technical experts in data processing, accounting, and reporting. This is conducted between the staff of the vendor and the Department (a vendor may also be a school district). Should any problems arise, the vendor will make the corrections. The same criteria is used in the analysis conducted by the Department, UFARS Council, ESV Computer Council, and the State Board. Each item in Subpart 2, item A is an essential feature of the UFARS system and is based on the legislative mandate to use a modified accrual method of accounting and generally accepted accounting principles. The proposed system must also meet programs and annual audits. When this detailed technical analysis is completed, the UFARS Council and the ESV Computer Council make their recommendations to the State Board for a final decision.

The approval by the State Board permits the vendor to sell the system to districts with the assurance that it is an official alternative to the ESV-IS. The certification required in item B, subitem 6, assures the board that there is continued compliance with the UFARS.

The second phase begins when a district decides to use an alternative management information system and makes application to the ESV Computer Council, the regional management information center, and the State Board. The information listed in Subpart 2, item B, which the district submits with its proposal is necessary to assure all concerned parties that:

1. The system as identified is an unaltered, approved system and therefore will provide valid data to the Department and other district constituents.
2. The district has the computing capability to process its accounting transactions into the regional computer center and can meet required reporting dates.
3. The costs and benefits are identified so that the buyer is aware of the responsibilities inherent in operating a system independent of the region. Should any cost or benefit be overlooked, this can be brought to the attention of the district, thereby either preventing problems in the future or making better use of the system.

The material for review by the ESV Computer Council includes the results of the analysis by the computer center and the long range plan adopted by the State Board. Since the ESV Computer Council must periodically review the plan and make recommendations to the State Board, including the review of applications for alternative management information systems, this not only complies with the statute (M.S. Sec. 121.937, Subd. 1 (a)), but also makes effective use of the Council's expertise.

The requirement to report annually (Subpart 3) allows the Department to fulfill its obligation to report to the legislature on the number and status of districts which have received approval to operate alternative systems. (M.S. Sec. 121.936, Subd. 5).

3560.0060 - Regional Management Information Center Plans and Budgets.

Subparts 1 and 2 reflect the statutory requirement that each regional management information center is required to submit an annual and biennial plan and budget to the Department and the ESV Computer Council for State Board approval. This ensures that each regional management information center knows that it must submit these reports, the timeframe for the reports, and the approval process.

In the analysis of each region's plans and budget, the ESV Computer Council and the State Board must have assurance that the region provides or arranges for all the services specified in M.S. Sec. 121.935, Subd. 2, and has the financial health to carry out its duties. The data listed in Subpart 3 provides that assurance and identifies problem areas upon which the State Board can confer with the region. M.S. Sec 121.931, Subd. 8, requires the regions to use cost accounting procedures. Rather than specifying which cost accounting procedures to use, Subpart 3, item A requires a report which results from using cost accounting. Each region can choose how it wishes to perform cost accounting. Items B through E provide the budget and other information necessary for analysis, and for base data in reports to the legislature.

Subpart 4 reflects M.S. Sec. 121.937, Subd. 2 requiring that the criteria for approval of the regional plans and budget include the compliance of the region with the long range plan, the ability of the region to perform the duties assigned to regions, the cost effectiveness of the region, and the use of cost accounting procedures to account, by district, of the resources used in the ESV-IS. One of the duties imposed on the ESV Computer Council (M.S. Sec. 121.934, Subd. 7) is the review of regional center plans and budgets and advising the State Board on their approval. The criteria in Subpart 4, item D fulfills this mandate and places the basis of their review on the provisions of the Long Range Plan.

The Long Range Plan, into which has been folded the systems architecture plan, is reviewed and adopted by the State Board every two years in conjunction with the development of the biennial budget by the ESV Computer Council and the State Board. This plan establishes the general direction for computer services, incorporates the utilization of emerging technology, and establishes the boundaries placed on districts and regions by the law. Since the plan is reviewed and updated regularly, it is also used to establish the basis for changes in services provided to the districts.

Every business operation must have adequate income to meet expenses. It is illegal to deficit finance a regional computer center from member fees and reporting subsidy except if surplus funds from previous years are available to make up the difference. The criteria in Subpart 4, item E, ensures that there are sufficient funds to prevent unexpected and substantial financial hardship on member districts.

3560.0070 - Incorporations by Reference

Each of the documents referenced in the preceding rules are lengthy and are revised irregularly (except for the Long Range Plan). Because of this, printed versions are bulky and are generally out of date by the time they are distributed. In order to provide the user with the latest edition, arrangements have been made to provide all or part of each document to anyone requesting it through the Minitex system. For those documents maintained in the computer, arrangements have and/or can be made to access the document via a computer terminal.

The Long Range Plan is reviewed and recommended revisions are made biennially by the ESV Computer Council to the State Board. In order to provide the latest version of the document to a requestor, the Plan is kept in the Department library for use through the Minitex system.