



Minnesota State Department of Education
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July 15, 1980

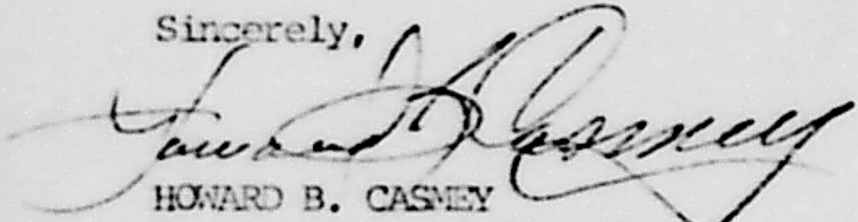
Chairman, House Appropriations Committee
and
Chairman, Senate Finance Committee

Dear Sirs:

Pursuant to Minnesota Laws 1979, Chapter 335, Section 2, Subdivision 6(d)(5), I am herewith transmitting to you the progress report of the development of the Elementary, Secondary and Vocational Information Systems and the State Department of Education Information System.

If you have any questions regarding the content of this report, please do not hesitate to contact me.

Sincerely,


HOWARD B. CASNEY
Commissioner of Education

HBC:km

cc: Legislative Reference Library (10)
Ronald J. Laliberte
Donald R. Thomas

⑤ (Pursuant to 1979 Session
laws, Sec. 2, Subd 6(d)(5))

③ July 15, 1980

① DEPARTMENT OF EDUCATION, REPORT TO THE LEGISLATURE
ON MANAGEMENT INFORMATION SYSTEM DEVELOPMENT,
January 1, 1980 to June 30, 1980.

④ Sp.

⑤ (Pursuant to 1979
Session Laws,
Sec. 2, Subd. 6
(d) (5))

I. INTRODUCTION

This report is submitted to the Chairman of the House Appropriations and the Chairman of the Senate Finance Committees pursuant to Minn. Laws of 1979, Chapter 335, Section 2, Subdivision 6(d) (5).

This report covers the period January 1, 1980 to June 30, 1980.

II. DEVELOPMENT OF SDE-IS

During the period January 1, 1980 to June 30, 1980 the State Department of Education Information System (SDE-IS) has been expanded by 25 percent from more than 400 million characters of data to over 500 million characters of data. Most of the increase results from adding an additional year of school data, staff data (principally in data relating to licensed staff), additional data elements in the data element dictionary, and an additional year of data collected on the Annual Fall Report.

Over the past several years, demand for "ad hoc" reports have fluctuated with greater demand being made when the legislature is in session. Since the legislature was in session during the first half of this period, a considerable demand was made for such reports; principally in the area of transportation aids. Over 150 computer runs were made to simulate various transportation aids formulas.

The legislature also made substantial changes to the levy system and over 100 additional data elements were included in the levy calculation system.

In addition to the levy system, the annual financial report system, the enrollment projection and staffing report systems, the community service aid report, the vocational post-secondary student follow-up system and the abatement aids system were also added to the SDE-IS. Portions of the data base are now capable of being transferred to other computers for processing, and the SFEMS has been installed as a part of SDE-IS.

New applications which use the data base include aids paid to districts, generalized reporting of staff data, transportation aid calculations, transportation aid simulations, and the special education child count system. In addition, the post secondary quarterly budget reporting system, the post secondary vocational instructional aid system, and the post secondary vocational program budget system were converted from the computer operated by the Information Systems Bureau Department of Administration to the computer used by the Department of Education.

The Department of Education continues to use the Burroughs B-6800 computer center operated by the ESV Region VI, located in the St. Paul Schools.

Of the twelve additional positions authorized by the 1979 legislature, 10 are currently filled; one is vacant because of a resignation; one position is being reclassified to provide more assistance to the data element dictionary staff. Considerable effort has been expended to establish and

Information System

fill these positions because of the current labor market demand for experienced and qualified data processing professionals.

Current development on the SDE-IS include the transfer of the county, district and school files from ISB computers to the Department system. The Minnesota Civil Rights System which had originally been scheduled for completion in the fiscal 1983 year, but was brought forward by a special grant of the Federal government, has been designed and currently is in testing. Manuals are complete and training is taking place in the regions. This system will collect civil rights data to establish conformance with equal education opportunity regulations and will, incidentally, collect additional data that can be used by the vocational education staff and will replace several reports which are currently used in the Department. The Annual Fall Report System is being dropped from the ISB computer and redesigned for the SDE-IS. In addition to the mandated changes to the Annual Financial Report and the Levies and Student Reporting Systems, there is also being developed the crossover to transfer the FY1981 financial data using the full Uniform Financial Accounting and Reporting Standards as mandated by the legislature to the SDE-IS. Additional new development is taking place in the area of Indian Scholarship Programs, Gifted and Talented Programs and the School Census System.

Not in progress but being considered for future development is the transfer of the statewide assessment program, including the piggyback feature. Another major data base will have to be created in order to handle the Certification Assignment System for licensed personnel and to include non-licensed personnel in this system. Other applications which are waiting include the Secondary Vocational Program Budget System, Indo-Chinese, Health Pre-Screening System, Vocational Aids, Vocational Facilities Inventory, Vocational Teacher Education Program Budget, and a Vocational Child Care Program. It is anticipated that these last mentioned systems will not be adding new data elements to the data base, but will produce reports needed by program activity managers to better manage their activities.

Currently in the planning area, work is being conducted to develop and implement a Computer Resource Billing System in order to adequately charge back to the Department users the cost of operating their systems. Because of the number of new applications being requested, there is also being developed and implemented a Project Management System. In conjunction with the ESV-IS Long-range Planning Project, there will also be plans developed and presented to the ESV Computer Council for expansion of computer hardware based upon the increased resources needed to operate the various systems previously mentioned.

Of all of the applications and systems which previously resided at the ISB computer, only Certification, Assignment and Child Nutrition and those systems associated with the Statewide Accounting System remain.

III. DATA ACQUISITION CALENDAR

The Department has developed an Annual Data Acquisition Calendar which specifies the reports which school districts are required to submit to the Department and the dates which these reports are due. The Calendar has been established for the 1980-81 school year and will be distributed on September 1. The Calendar will be updated during the year to incorporate

those reports which the regional management information centers are required to provide to the Department for their affiliated districts.

IV. DATA ELEMENT DICTIONARY

Two strategies are being used to develop the Data Element Dictionary. In the first instance when forms are being revised, any new data elements which are incorporated into the form are being added to the Data Element Dictionary. In the second instance the forms which are in the Annual Data Acquisition Calendar are being systematically reviewed with each of the divisions and budget activity managers to secure a uniform set of definitions and purposes for which the data is being collected. At this time, approximately 1500 of the estimated total 3000 data elements in the Department have been entered into the Dictionary. The Dictionary contains all of the data elements currently on the SDE-IS data base, including the Annual Financial Report, Levies, the School District Report, the Annual Fall Report, Migrant Education and Student Data. In addition, all of the forms of the Vocational Technical Education Division have been reviewed with that division and have been defined and placed on the Dictionary. As the Special Education System is developed, those data elements are placed on the Dictionary. In the Annual Financial Report some data elements are different than the UFARS, and these are being redefined in accordance with the UFARS standards. All UFARS definitions will be placed on the Dictionary. Data relating to personnel licensing and placement is complete and on the Dictionary with the exception of the legal citations justifying their collection. The Department has also established a policy identifying the acceptable purposes which justify the collection of data and the procedure necessary to ensure that forms are eliminated wherever possible.

V. DEVELOPMENT OF ESV-IS

The 1980 legislature made some far-ranging changes to the current operations of the Elementary, Secondary, Vocational Information System (ESV-IS). The legislature established that the purpose of the Statewide Education Management Information System shall be to provide comparable, accurate, timely and economical information for use in research and analysis to meet school district management needs, and to meet management needs of the State of Minnesota. To provide structure to this, the legislature established that there will be a systems architectural plan and a long-range plan for the development of the ESV-IS and SDE-IS. In addition, the Department is mandated to establish rules regarding data standards as developed by task forces assigned this responsibility. There is also created an ESV Computer Council with membership representing the districts and public and private industry to advise the state board on the development of the Statewide Management Information System and to review proposals and to assist in developing standards.

The legislature also outlined the duties of the regional management information centers and the responsibilities of the Department of Education in the review of their plans and budgets and the establishment of regional subsidies.

Lastly, the legislature provided that alternative Management Information Systems may be approved within criteria established within the law. As a result of this and previous legislation which mandated the use of the Uniform Financial Accounting and Reporting Standards and the ESV-IS

Financial System, the major effort during this past six months has been to train and establish each school district, ECSU, Vocational and Education Cooperative and Vocational schools onto the ESV-FIN system. All school districts have been trained and have had their files built so that they are able to process their transactions as of July 1, 1980. The only exception is Minneapolis where a plan has been devised which extends their conversion to the ESV-FIN system into later into the year. However, they are processing detailed transactions in such a way that they do meet the UFARS and transactions can be reprocessed through the ESV-FIN system when the programming has been completed.

The Personnel-Payroll System was released in January, 1979. During the past six months any major "bugs" which have occurred have been corrected. Mostly the regions have been streamlining their operations to provide this system to the school districts. The regional training coordinators have been meeting to share their experiences and to assist in more effectively delivering their services.

In the Student Support System the subsystems of scheduling, student records, mark reporting, census and attendance have been programmed, tested, and are being piloted in both Region VI (METRO II) and Region III (St. Cloud). The systems are operational although some errors have been detected which are being corrected. It is expected that the system will be fully documented and these subsystems will be released by December 30, 1980. The remaining subsystems, History, Transportation, Special Ed and Vocational Ed are in various stages of design or development. Because of the needs of the AVTI's, an analysis is being made of the reporting requirements by the Staples AVTI to determine to what extent the Department's reporting needs can be met by the basic student record. This analysis is almost complete and will be presented to the Vocational Education Division this month.

The following is a summary of the major accomplishments in each region.

ESV Region I - Moorhead is providing services to 91 school districts and 13 educational cooperatives. All districts are utilizing the ESV-FIN (Finance) System and 27 are utilizing the ESV-PPS (Personnel-Payroll) System. None are using the ESV-SSS (Student) System.

Region I currently has a B-1855 mini computer which serves as a Remote Job Entry (RJE) machine, linked to the host computer at St. Cloud. Since this host computer is not able to handle the total processing load for all of Region I's districts, about half of the districts are being processed on the B-6700 computer located at MECC. Region I is currently exploring alternatives with ESV Region IV to centralize both regions' processing on one host computer.

ESV Region II - Duluth is providing services to 34 school districts and 7 educational cooperatives. All districts are using the ESV-FIN system. Districts currently using the PERRAS (Personnel-Payroll) system for payroll processing will be converting to the ESV-PPS system. Region II has completed installation of a B6807 computer without any major difficulties. Plans are in progress for Region II to pilot the ESV-SSS during the summer.

ESV Region III - St. Cloud is providing services to 67 school districts, 13 educational cooperatives and 2 ECSU's in central Minnesota. All 67

school districts are utilizing the ESV-FIN, 19 districts are utilizing the ESV-PPS, and 10 districts are using the student system. Region III is active in the development of software for the B-80 micro computer and in the planning of the use of the B-80 as a hub site to decrease communication costs, to reduce the processing load on the central computer, and to increase local control of the work in process.

ESV Region IV - Marshall provides services to 86 school districts, 5 educational cooperatives, and the ECSU in southwestern Minnesota. All are now using the ESV-FIN and 20 are using the ESV-PPS. Two districts receive student scheduling services from Region V. During the past year, Region IV installed a B-1855 mini computer to use as an RJE to the B-1700 computer at MECC. Plans for using the ESV-SSS will not be made until after the system is released in December. Region IV is not desirous of operating its own large computer system and is working with Region I to develop a multi-regional center.

ESV Region V - Mankato is providing services to 98 school districts and 7 educational cooperatives. All districts are utilizing the ESV-FIN and six are utilizing the ESV-PPS system. Twelve districts, including two districts from Region IV are utilizing scheduling services from Region V. It is anticipated that some of these schools, as well as others, will want to use the ESV-SSS when it is released in December. Region V currently has a B-6807 located at the Mankato AVTI, and B-800 which serves as an RJE for the Regional offices located at another site in Mankato. Region V is exploring alternatives to the current dual sites through consolidation into one regional computer center or participation in a multi-regional center with Regions I and IV.

ESV Region VI - METRO II is providing services to six large school districts. All 6 school districts are utilizing the ESV-FIN, 4 school districts are using the ESV-PPS, and 5 districts are using the student system. Region VI has been the pilot region for each of the systems and therefore is further along in the use of the systems to the extent that district-unique software is being developed to meet individual district needs. Region VI has negotiated with the Minneapolis school district to resolve their differences and a plan has been developed to convert the Minneapolis district completely onto the ESV-FIN. While this plan is being implemented Minneapolis will transmit their financial transaction to the Region VI in a bulk mode in order for Minneapolis to comply with the law.

ESV Region VII - TIES provides services to 57 districts which are both metropolitan and rural districts. All districts are utilizing the ESV-FIN System, 55 school districts are using the TIES Personnel Payroll System, and 57 school districts are using the TIES student system. At this time, there is no proposal to transfer the districts on the TIES Personnel-Payroll System to the ESV-PPS. The TIES Student System has been evaluated and components are being used in the ESV-SSS. TIES has completed a major five year plan for service to their districts and is currently developing a distributed data processing implementation plan.

In summary, the following table shows the status of usage of each system by the districts and other educational agencies in each region.

| <u>REGION</u> | <u>ESV-FIN</u> <u>FINANCE*</u> | <u>ESV-PPS</u> <u>PERSONNEL-PAYROLL</u> | <u>ESV-SSS</u> |
|---------------|-----------------------------------|--|----------------|
| I | 104 | 27 | 0 |
| II | 42 | 0 | 0 |
| III | 82 | 19 | 10 |
| IV | 92 | 25 | 12** |
| V | 103 | 6 | 0 |
| VI | 6 | 3 | 5 |
| VII | 57 | 0 | 0 |
| | <u>486</u> | <u>80</u> | <u>27</u> |

* Includes all educational agencies

** Region V uses scheduler only

VI. WORK PROGRAM FOR JULY-DECEMBER

During the next reporting period, the Department will develop rules describing the criteria for the approval of regional management information centers, the transfer of districts between regional management information centers, the development of alternative management information systems and the criteria for approval of biennial plans and budgets. The Department has adopted rules specifying the criteria and process for determining which data elements are included in the data element dictionary and these will be reviewed during this period. Other rules which will be adopted include the requirement of regional management information centers to use cost accounting procedures which account by district for the resources consumed at the center.

Legislation passed in 1980 included the hiring of a consultant to implement recommendations made in the previous evaluation of the ESV System. This consultant contract will be let after an analysis of the proposals which have been received. Work tasks included in the consultant contract include the development of an alternative support formula for the regions, the development of a systems architecture plan and the development of a long range comprehensive system plan.

The study on the use of micro computers as an alternative to telecommunications will have almost completed the work portion of the study and the final report will be started. The mandate to develop an alternative financial accounting reporting system to be used on a micro computer system will be initiated, an evaluation of the Ortonville District financial system will be completed. Each region will also begin the development of the disaster recovery plan for that region.

In the ESV-IS, the Finance System will receive maintenance service only. Major attention in the Personnel-Payroll System will be to increase its efficiency and operation so that it reduces computer resources thereby reducing costs to the district. The major attention in the ESV-IS will be in the Student System where the four main modules, student record, scheduler, census, mark reporting and attendance will be completed, documented, and released. The other modules such as the history records, the special education and the vocational education and the transportation modules will be deferred to the following year. Region I and Region IV will have completed a plan for the development of multi-regional center and

Region V will make a decision on the resolution of their location.

The State Department of Education Information System (SDE-IS) will receive annual financial data transmitted from an increasing number of school districts and the impact and procedures for receiving this data will be refined. In addition, work will begin on the identification of the data elements which will be transferred from school districts to the Department to meet the Department's needs, thereby eliminating the forms which have transmitted to the district. The Personnel Licensing Section will transfer its function which currently operates on the ISB computers to the ESV computers, and the Equal Educational Opportunity project will be completed and operational.

The Data Acquisition Calendar will be published as scheduled in September.

The Data Element Dictionary will continue to be developed. Additional data elements required by UFARS will be included. Data elements required by the Transportation Section and State Aids Section will be added to the dictionary. The next major areas to be included in the dictionary are Special and Compensatory Education and Child Nutrition services.

VII. SUMMARY

The Department has worked continuously to implement the state law requiring all school districts and educational agencies to be using the Elementary Secondary Vocational Financial Accounting Reporting System and has accomplished that mandate. At the same time, the conversion has gone from the two-dimensional to the six-dimensional uniform Financial Accounting and Reporting Standards. In total there are 437 school districts and 46 educational agencies such as educational cooperatives and ECSU's on the system. Even though no emphasis has been placed on using the Personnel-Payroll System, 80 school districts are currently using that system and 56 additional districts plan to begin using the system during the next six months. The Student System has 15 districts using it even though it has not been released officially, and 12 additional districts are using the scheduler module in a stand alone mode.

Major legislative changes have caused the development of two new projects, one on the implementation of evaluation of ESV-IS and the other on development of a finance system to be used on a micro computer. The development of the data element dictionary and the State Department of Education Information System has proceeded so that districts may transmit data to the Department in an electronic mode and so that the legislature and others will have increased ability to secure the information that they need.