ANALYSIS OF
ESV REGIONAL STRUCTURE

November 30, 1989

Grant Thornton

Accountants and
Management Consultants

Consultant's Report prepared for the
Education Department

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November 30, 1989

Mr. John Madden, Chairman
ESV Computer Council
Minnesota Department of Education
Capitol Square, 550 Cedar Street
St. Paul, MN 55101

Dear Mr. Madden:

We are pleased to submit this report titled "Analysis of ESV Regional Structure". The report describes the findings and recommendations resulting from our consulting assignment with the ESV Computer Council and Information Policy Office - Department of Administration. The report concludes our assistance on this assignment.

We enjoyed working on this important matter. Please let us know if we can provide further assistance.

Sincerely,

Grant Thornton

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slb

Attachment

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ANALYSIS OF ESV REGIONAL STRUCTURE

EXECUTIVE SUMMARY

Project Overview

The 1989 Minnesota Legislature directed the ESV Computer Council and Information Policy Office ("IPO") - Department of Administration to "study and evaluate the current structure of regional management information centers, " and to "report to the education committees of the legislature by February 1, 1990, its recommendations for changes." Several fundamental topics were identified for analysis, specifically the:

1. Number and location of regional data processing centers,
2. Number, location, and administrative structure of regional service centers,
3. Relationship of regional computing centers to the Department of Administration and Department of Education ("MDE").
4. Administrative relationships of regional processing or service centers to other regional administration units, specifically Educational Cooperative Service Units ("ECSUs").
5. Relationship of the development of regional processing to a proposed state telecommunications network.
6. Other topics that are appropriate.

Grant Thornton, an accounting and management consulting firm, was selected to assist in this analysis. A study group was formed to incorporate ESV Computer Council and IPO involvement. The analysis began in August, 1989, and was concluded in November, 1989.

Methodology

In order to obtain the broad range of information necessary for the analysis, a multi-faceted methodology was developed to include:

1. A survey of school district administrative computing support needs.
2. Review of ESV Computing Region, ECSU, MDE, and other background information.
3. Personal or telephone interviews with administrators and staff at ESV Computing Regions, ECSUs, school districts, and the MDE.
4. Analysis, findings, and development of alternatives and recommendations.
5. Preparation and discussion of a written summary report.

It is important to note that the focus of this analysis is on administrative computing support, not educational or instructional support.

Summary of Findings and Recommendations

1. Number and Location of Regional Data Processing Centers.

   Recommendation:

   Regional computing support should be selectively consolidated, based on geographic proximity, telecommunications costs, similarity of district needs, and the remaining useful life of current computing equipment.

Computing support should be distinguished from service functions in order to reduce the number of computing support centers. Current circumstances provide an opportunity to consolidate computing centers over a period of time and achieve additional operating efficiency. The timing should be based on the opportunity to:

- Reduce computing center operating costs.
- Minimize telecommunications costs between computing centers, service centers, and districts.
- Develop transition plans to coincide with the end of existing hardware lifecycles.
- Consolidate selectively in multiple phases to coincide with changing district needs and improvements in telecommunications.

The opportunity to plan for combined computing support for ESV Regions II, III and V could provide significant cost savings to member districts. Discussion and planning for this combination should begin in the next two years, with plans to combine computer support in four to five years.

Regions I and IV jointly manage a combined computing center. These Regions support the western tier of districts. These regions primarily serve smaller districts. Combination of computing support for Regions II, III and V would support a central tier of districts. These Regions serve small districts, but also a significant number of intermediate size non-metro districts. Region VI (Metro II) serves large metro districts with unique needs. Region VII (TIES) primarily serves intermediate and large metro districts that include more than one-third of the state's K-12 student enrollment. This redefinition of computer support centers would result in four computing centers with the following characteristics:

- Geographic and district service similarities
- Operations at supportable economies of scale
- Cost efficiency for computing support

Further combination of computing support is not justified within a five year planning horizon. Technology or telecommunications developments in the next five years may provide opportunities for further combination in subsequent periods.

Recommendation

MDE and the ESV Computer Council should encourage ESV Regions to select and assure support of preferred alternatives for microcomputer and minicomputer solutions for FIN, PPS and SSS.

The ESV Computing Regions provide two important benefits. They provide cost effective computing support to meet the needs of most districts, and their regional function supports data accuracy, timeliness, and reliability that benefits districts and the MDE. As districts seek cost or effectiveness benefits through in-district processing these benefits should not diminish the accomplishment of the data objectives.

A proliferation of in-district computing alternatives for FIN, PPS, and SSS could jeopardize the long-term support and procedural discipline that is critical to the success of in-district alternatives. Therefore, ESV Regions should become more actively involved in the support of specific alternatives. This support should provide opportunities for districts to migrate from ESV Region computing while retaining the benefits of ESV Region participation.

Supporting Findings

There is growing diversity of computing support needs based on district size and administrative sophistication.

This growing diversity requires multiple approaches to computing support, ranging regional batch processing for many small districts in-house to on-line support for more sophisticated small and intermediate size districts, and interactive or distributive processing for large districts.

A single software system or regional structure cannot meet all district needs.

A single approach will not be effective in meeting longer range needs because many districts will continue to seek more sophisticated and adaptive in-district administrative computing support.

The opportunity to achieve greater economies of scale in computing support must be addressed within the overall objective of providing appropriate direct services to districts.

Computing support can be distinguished from service support at ESV Regions. The jointly managed computing support for Regions I and IV provides an example for Regions II, III and V. There is an opportunity to plan common district needs and the next generation of computing support for these Regions within a five year timeframe.

2. Number and Location of Regional Service and Support Functions

Recommendation

The existing ESV Computing Region locations and functions should be retained, except for the potential combination of jointly managed computing support.

The current location of service centers effectively meets the broad range of service needs, and provides balance of economies of scale and geographic access for the range of district needs. District involvement in ESV Region administration effectively provides local control. The current ESV Regions should remain autonomous, and jointly manage any combined computing support in a manner similar to Regions I and IV.

Recommendation

ESV Computing Regions, specifically the service center functions, should be responsible to assess administrative support needs among member districts, and be the coordinating and support center for a broader range of administrative support services.

Regional support is very important and highly valued by most districts. The existing service locations can most effectively support and plan for the direct services that are needed among member districts.

Supporting Findings

The emphasis among ESV Computing Region activities has shifted from computing support to district service.

Districts highly rate the quality of service and staff support provided by ESV Computing Regions. The support relationship will continue to be critical to processing administrative data for many districts, and for the administration of data standards for all districts.

The feasibility and need for providing any service on a regional basis involves trade-offs of critical mass and proximity.

The existing regional support structure satisfies these trade-offs for the services currently desired by most districts.

Smaller districts are relying more on ESV Computing Regions because of demographic trends and economics for scale.

As the student enrollment and tax base of many small non-metro districts declines, the feasibility of alternate systems and administrative support for these districts is diminished.

Small district needs for computing support extend into certain administrative assistance services that are outside the traditional computing support role of ESV Computing Regions.

Trends toward pairing of districts, combined administration, and limited availability of technical administrative talent will require greater regional administrative support for small districts.

3. Relationships of ESV Computing Regions to the Departments of Administration and Education and the ESV Computer Council

Recommendation

The ESV Computer Council should broaden its current functions and become more active in its charter to provide planning and oversight to ESV Computer Region activities.

The ESV Computer Council role should include significant new efforts to develop and implement standards and mechanisms to assess performance for ESV Computing Regions. Staffing support is needed to leverage the talent available on the ESV Computer Council.

Recommendation

The Legislature should fund specific development and support activities of ESV Computing Regions, including costs of data consolidation and reporting on district information. These development and support efforts should be identified and administered by the ESV Computer Council as part of the budget review process.

Specific objectives are needed to provide a better set of expectations between the ESV Computing Regions and the ESV Computer Council. State subsidy is needed for data collection and consolidation efforts that benefit MDE. These benefits should be the primary basis for subsidy.

Recommendation

MDE should require districts to submit operating data to the ESV Region of their choice rather than directly to MDE. This will limit the staffing and direct support required by MDE. This will also provide for a nominal level of data review by ESV Computing Regions.

The ESV Region consolidation of data from districts will provide an important level of review before this information is submitted to MDE. The decentralized consolidation of data may also support MDE objectives to retain IDB data at ESV Regions.

Supporting Findings

The current state subsidy to ESV Computing Regions has declined relative to overall regional operating expenditures, and bears little relationship to original state objectives for administrative computing support.

The current static mechanism for annual ESV Computing Region operating support does not satisfy the interests or concerns of any party.

MDE is not currently organized, staffed, or funded to accept substantial new responsibility for data processing activities.

Any significant new responsibilities or program activities in data processing will require MDE staffing support or reliance on ESV Computing Regions for implementation.

4. **Administrative relationship of regional processing or service centers to other regional administrative units, specifically ECSUs.**

Recommendation

The MDE oversight functions should be better coordinated and linked to funding support for ESV Computing Regions and ECSUs.

MDE should provide funding support to ESV Computing Regions based on performance and cooperation. MDE staff support should oversee both recipients of funding support, and identify opportunities for more effective delivery of service.

Supporting Findings

No single form or structure of ESV Computing Regions and ECSUs has been able to meet the unique service needs for districts.

While some ECSUs and ESV Computing Regions are combined or coordinated in some manner, no single form of coordination can be most effective in all circumstances. ESV Regions and ECSUs have different basic missions. There are no significant opportunities for benefit at this time from further ESV Region and ECSU combination.

Although there is limited redundancy of services and activities among ESV Computing Regions and ECSUs, there is potential for redundancy.

The missions prescribed for ESV Computing Regions and ECSUs are broad enough to result in some areas of redundancy, specifically in extended services such as administrative, human resource, and microcomputer technology services. The opportunity and need for supplemental revenue generation have been an important reasons why both ECSUs and ESV Computing Regions provide these services. The lack of any state level coordination of ESV Computing Regional and ECSU functions allows the potential for negative effects of uncoordinated services. This situation is further complicated by the proliferation of other co-op and special service districts authorized under joint powers statutes.

The lack of any Legislature or MDE coordinating function for ESV Regions and ECSUs perpetuates organizational competition where working relationships have not been established.

Much of the organizational competition is not productive in meeting district needs.

5. **Relationship of the development of regional processing to a proposed state telecommunications network.**

Recommendation

If the opportunity to consolidate computing centers precedes STARS implementation, a portion of the overall state subsidy to ESV Computing Regions should be used to offset specific telecommunications costs until cost savings and benefits are available from STARS implementation.

STARS implementation will provide the most immediate benefit in trunk line development to link consolidated computing support and service center locations. This type of telecommunication support will be critical to meet the administrative computing needs of non-metro districts.

Supporting Findings

Telecommunications costs are an important consideration in determining the location of non-metro Regions.

Consolidating computing centers and retaining current service locations will require greater telecommunications support for the districts that obtain interactive service and for the service centers that support regional software. The proposed STARS network could greatly benefit the cost effectiveness of these combinations.

Telecommunications limitations and costs may inhibit non-metro regional support of on-line systems, and result in more in-district system implementations.

The departure of intermediate size districts from ESV Regions could result in higher costs to remaining districts, limits on the scope of support that could economically be provided, and proliferation of alternate systems approaches among districts.

6. Other Topics

Recommendation

MDE should provide staffing support to the ESV Computer Council to manage statewide standards and interpret issues regarding application of these standards.

A state level coordinating effort is needed to provide guidance to ESV Regions. The Regions provide direct district assistance in the application of code structures, but currently lack guidance. Code structure and standards should include UFARS and other IDB data to ensure consistency in all data reporting to MDE.

Supporting Finding

Unless data standardization is emphasized, the lack of uniformity will impact the integrity of IDB information.

A primary objective of the IDB is to link financial, staff and student data to provide a basis for management decisions. Without standardization in the use of code structures, the MDE and districts will not accomplish their objectives for this information.

Recommendation

MDE and ESV Computing Region activities should focus primarily on IDB implementation and consider other-agency data access as an aspect of future software revisions.

Those ESV Regions that extensively use other-agency information have developed a cost effective method for access. This access is not currently a priority for most districts, although its use may become more important with the development of more sophisticated management information capabilities.

Supporting Finding

District access to non-education public agency data is a longer term need that will depend on the practicality of applications and concerns about data access and privacy.

Some larger districts and certain ESV Computing Regions routinely obtain other agency data in tape format to load into regional databases. The information most frequently obtained is health and human service data from county agencies. Small districts do not perceive practical need for this information at this time.

Conclusions

Minnesota's school districts operate in a rapidly changing environment for administrative computing support. A growing number of technical alternatives are available. However, districts must decide how best to meet their needs based on issues that are broader than just technical capabilities. Most districts face the challenge of limited financial resources. Therefore, it is essential that they have the administrative and information support needed to efficiently manage their finances and operations.

The ESV Computing Regions perform many valuable functions to support the administrative computing needs of Minnesota school districts. The ESV Regions provide stable computing support and technical services that could not otherwise be efficiently available to most districts. Some districts perceive the need for computing support that cannot economically be provided by ESV Regions at this time. Many of these districts have implemented or contemplated implementing in-district computing systems. The costs and responsibility for managing these in-district systems have generally been more great than these districts initially anticipated. Also, the support available for these systems may not be as great as the support that can be provided on a regional basis.

The mission of ESV Regions is to provide administrative computing support. This mission must extend into alternative support for districts that need more functional software capabilities. It is not appropriate that ESV Regions attempt to satisfy every district need. However, they must effectively meet the changing needs of member districts, including microcomputer support and certain in-district applications.

The ESV Computer Council must play a key role in providing regional administrative computing support. The Council must provide the leadership in planning and coordination necessary to accomplish the MDE goals for data accuracy, timeliness and comparability. The Council must also understand the changing needs of districts and guide the ESV Regions to effectively and efficiently support these needs. The Council can best discharge this responsibility through effective planning, developing performance standards, and maintaining active involvement in district issues.

SECTION I

BACKGROUND, SCOPE AND METHODOLOGY

A. Background

The state educational system currently operates in a dynamic information support environment. Two primary factors have influenced changes in this environment since the implementation of UFARS. First, the sophistication of information needs among school districts has evolved. As a result, the computing support required by districts is becoming more diverse. Second, the technical computer evolution has created new cost effective alternatives that did not exist ten years ago.

The Minnesota Department of Education ("MDE") seeks to maximize the cost effectiveness and efficiency of computing support to districts while ensuring standardization of information relating to finance and management, curriculum and attendance, and personnel. At the same time, MDE does not wish to constrain the freedom of districts to develop and implement cost effective alternatives that meet their administrative information needs.

The Elementary Secondary Vocational Computer Council ("ESV Computer Council") was formed to oversee administrative computer support and standardization of reporting among Minnesota's school districts. The current regional computing support structure has developed with some unique characteristics among ESV Regions and their clientele. ESV Regions (see Appendix A for list and location) have become the computing and technical support for most districts. In addition, they act as the conduit for reporting to MDE.

MDE and the ESV Computer Council have developed and updated long-range plans for developing software, support, and reporting capabilities statewide. A key component of these plans is the Integrated Database ("IDB") concept for standardized reporting of core financial and operational data from all school districts.

The ESV regional structure has been fundamental to information systems support among most school districts. However, the structure, needs, and relationships of the districts and MDE deserve objective analysis, particularly in the light of the substantial investment and plans by MDE to continue toward IDB implementation. The state Legislature, on behalf of taxpayers, students, and education administrators, wants a progressive and coordinated information system that provides cost effective state level information capabilities and capacity to support the range of needs among all school districts.

In 1989, the Legislature (see Appendix D) directed the ESV Computer Council to "study and evaluate the current structure of regional management information centers," and to "report to the education committees of the legislature by February 1, 1990, its recommendations for changes." The overall objective of this study is to evaluate the number, location, and administrative structure of regional data processing and service centers, the relationship between the regional computing centers and MDE, relationships with other regional education administrative units, and potential relationships with state telecommunication networks.

In August of 1989, the ESV Computer Council, through the Information Policy Office ("IPO"), contracted with Grant Thornton, Accountants and Management Consultants, to perform an analysis of these regional structures, services, and relationships. The recommendations resulting from the analysis, included in this report, are intended for use by the ESV Computer Council to plan, budget, and organize information support for ESV Regional Computing Centers and Minnesota's school districts.

B. Scope and Methodology

This analysis by Grant Thornton examines and evaluates the computing support structure with specific emphasis on the following areas:

1. The number and location of regional data processing centers,
2. The number, location, and administrative structure of regional service centers,
3. The relationship of regional computing centers to the Departments of Administration and Education,
4. The administrative relationships of regional processing or service centers to other regional administrative units, including educational cooperative service units,
5. The relationship of the development of regional processing to state telecommunications networks.

Grant Thornton's approach to this project is to develop analytic profiles of ESV Regions and school districts as a basis for evaluating and recommending improvements and changes in the existing structure, relationships, services, and costs. The relationship of the regions and districts to other entities in the state, such as the Minnesota Department of Education, the Department of Administration, the Educational Cooperative Services Units ("ECSU"s), and the ESV Computer Council, are carefully examined and evaluated.

A methodology was developed to meet the ESV Computer Council's project objectives and ensure uniform and reliable findings. The workplan included efforts to:

1. Develop and administer a survey research instrument to solicit information from school districts in cooperation with members of the MDE and ESV Computer Council Project Steering Committee. The topics addressed in the survey included demographic information about the district, data processing services utilized at the ESV Region by the school district, training and other support services used, costs incurred for compliance with UFARS reporting mandates and user satisfaction.

2. Distribute surveys to the 436 school districts, collect and compile responses.

3. Validate survey responses and analyses of survey results.

4. Review ESV Region annual plans and budgets and review the existing policies and statutes effecting the ESV Region organizational structure.

5. Interview selected school district administrators representing small-, medium-sized, and large districts in both metro-area and non-metro locations.

Interview management personnel at each of the seven ESV Regional Computing Centers, in person or by telephone, and each of the nine Educational Cooperative Service Units. Also, interview officials at MDE, Department of Administration, and the Legislative Auditor's Office.

6. Develop ESV Region and district profiles from the information collected in the surveys, interviews, and other data sources. Profiles have been developed for each ESV Region, for categories of school district sizes (small-, medium-sized and large) and school district locations (metropolitan area, regional growth center and non-metro area).

7. Evaluate regional structures, services, and relationships. Also identify strengths, weaknesses, and key findings.

8. Identify and describe alternatives to modify existing ESV Region structure and relationships.

9. Formulate recommendations for modifications to the the ESV Region structure and administrative relationships that can result in improved service and/or cost efficiencies.

SECTION II

PROJECT FINDINGS

A. Survey Research Findings and Results

1. Background and Survey Content

Minnesota's school districts represent a wide range of needs and circumstances. The diversity among these districts is one of the overall strengths of our state's educational system.

Minnesota school districts exercise a high degree of local control in funding and administration of education. This control includes the determination of computing and information support to manage finances, operations, and other administrative functions.

A survey instrument was developed and distributed in September, 1989 in order to solicit opinions and facts from the 436 school districts. The objective of the survey was to identify issues and ideas relating to district administrative computing and the ESV Region structure and relationships.

The survey questionnaire (see Appendix C) was developed with input from MDE. Several primary characteristics were solicited to screen responses and analyze opinions and facts. These characteristics include:

- School district size by student enrollment
- Metro/Non-metro location, as defined by the seven county metro area
- ESV Computing Region affiliation
- ESV Region software systems (FIN, PPS, SSS) currently used
- Methods of UFARS and regional reporting

These primary characteristics were determined after conducting interviews with certain districts and analyzing facts regarding the diversity of computing support.

Certain other facts were solicited to provide data for analysis, including:

- Telecommunications use
- Plans for implementing IDB
- Workstation use
- Dollar value of district based computer equipment
- Operating expenditures for UFARS reporting
- Use of services from the ESV Region, ECSU, special functions, coops, or other vendors
- ESV Computing Region staff support for certain services
- State subsidy to the ESV Computing Regions
- Administration, participation and control of ESV Regions
- Telecommunications funding
- Needs for access to information from other non-education public agencies

The survey also presents a series of thirty statements to solicit agreement, disagreement, or no opinion. These statements relate to various components of ESV Region computing support and telecommunications needs. Finally, a series of open ended questions were posed to solicit opinions from school districts on the topics of regional and local computing support.

2. Survey Methodology

The survey was reviewed in draft form by several district Superintendents. It was then revised and distributed to all district Superintendents for return to the Department of Education. The survey was sent with a cover letter from the Department of Education urging completion and return. Survey results were input into a computer database by MDE staff. Subsequent analysis was performed using a microcomputer spreadsheet.

The survey responses were reviewed to determine their representative characteristics for:

- District size by student enrollment
- Metro/Non-metro distribution
- ESV Computing Region distribution
- Very large district representation

This review supports the representative nature of responses and the validity of survey results.

3. Survey Response Rate

A total of 324 surveys were completed and returned from the 436 that were distributed. The response rate of 74 percent indicates a high level of interest on these topics among school districts. Responses by ESV Computing Region and school district size by enrollment are as follows:

Distribution of District Surveys By Region and Size

Number of Students	ESV Region I	II	III	IV	V	VI	VII	Total
0 - 499	14.5%	1.5%	2.5%	11.1%	7.1%	0.0%	.3%	37.0%
500 - 999	4.0	3.1	5.9	5.2	7.4	0.0	1.2	26.8
1,000 - 1,999	2.8	2.2	4.3	1.2	4.6	0.0	.6	15.7
2,000 - 4,999	1.9	2.2	1.9	.9	2.2	0.0	4.6	13.7
5,000 +	.3	.3	.6	0.0	.6	1.9	3.1	6.8
Total	23.5%	9.3%	15.2%	18.4%	21.9%	1.9%	9.8%	100.00%

Responses by metro/non-metro location are as follows:

Distribution of District Survey by Location and Size

Number of students	Seven County Metro	Non-Metro	Total
0 - 499	.3%	36.7%	37.0%
500 - 999	1.2	25.6	26.8
1,000 - 1,999	.6	15.1	15.7
2,000 - 4,999	4.0	9.7	13.7
5,000 +	4.9	1.9	6.8
Total	11.0%	89.0%	100.0%

The survey results by school district size, region, and location are representative of the composition and mix of districts throughout the state.

4. Survey Findings

Minnesota school districts can be grouped into categories that include small districts (student populations to 999), intermediate size districts (student populations 1,000 to 4,999) and large districts (student population in excess of 5,000). These groupings are reinforced by survey results as a common indicator of issues, concerns, and attitudes. These definitions will be used in describing the survey results. Where more specific designation is necessary, districts are referred to by the student groupings presented in the previous two charts.

The responses to statements, items 18 through 47 in the survey, provide interesting information about the range of attitudes and experiences among the respondents. The topics included in this section cover a range of topics including:

- Costs and effectiveness of regional computing support
- Regional software effectiveness
- Timeliness of regional support
- Regional support and quality of service
- Regional cooperation and participation
- Benefits of regional support
- Location and administration of regional support
- Special requests and services
- Telecommunications and information access

For most of these topics, two or more related statements were made to gauge district attitudes. The responses are summarized by topic in order to describe the findings of related statements. It is important to note that the sum of response distributions may not equal 100 percent because some districts may not have responded to every question.

a. Cost and effectiveness of regional computing support

Five aspects of cost effectiveness were explored. Overall results are as follows:

	Strongly agree	Agree	Disagree	Strongly disagree	No opinion
ESV Region provides cost effective data processing service	35.2%	46.3%	6.5%	4.9%	7.1%
Regional processing has reduced district staffing	6.8%	11.1%	41.7%	22.8%	17.3%
Regional processing has reduced district computer operations	8.6%	19.8%	32.4%	15.1%	24.1%
Providing data to the Region duplicates other district data collection	4.9%	17.0%	53.1%	15.4%	9.6%
District costs would be reduced if not belonging to ESV Region	7.4%	11.1%	35.2%	28.4%	17.9%

More than 81 percent believe that the ESV Regions provide cost effective data processing service. This high rate of support indicates overall satisfaction with the costs and benefits received from ESV Region relationships.

Support is found among all district sizes. Support is strongest in Regions II, IV and VII. Conversely, more than 11 percent of respondents disagree. This disagreement is most prominent among districts 500 - 999 and 2,000 - 4,999 students in size, and in Regions I, III, IV and VI. A high proportion of small districts have no opinion, as do many in Regions I and IV.

The reduction of district computer staffing may be a desirable goal but has not been achieved in most districts. Nearly 18 percent of respondents believe that they have achieved staff reduction. The strongest agreement is found among intermediate and large school districts. However, more than 67 percent of respondents disagree. The strongest disagreement is found among small school districts. There is also a substantial no opinion response, predominant among small school districts.

A reduction in district based computer operations may also be a desirable goal, and has been achieved according to more than 28 percent of respondents. The strongest agreement is found among larger school districts. More than 47 percent of respondents do not believe that they have reduced their computer operations. Much of this disagreement is found among very small districts. Finally, nearly one-fourth of respondents have no opinion on this topic. Again, the lack of opinion is most substantial among small districts.

Nearly 22 percent of respondents believe that reporting to their ESV Region duplicates data collection efforts performed in their district. This belief is strongest among very small and intermediate districts. More than 68 percent disagree, primarily large and very large school districts. More than 9 percent have no opinion, primarily among intermediate and large districts.

Nearly all districts report data to an ESV Region. More than 18 percent of respondents believe that their district computing costs would be reduced if they were not required to report to an ESV Region. This belief is most prominent among intermediate size districts. More than 63 percent of respondents disagree, with much disagreement from smaller and larger districts. Again, the lack of opinion is highest among small districts.

b. Regional software effectiveness

Four aspects of regional software effectiveness and adequacy to meet district needs were explored. Overall results are as follows:

	Strongly agree	Agree	Disagree	Strongly disagree	No opinion
Regional software is effective and supports needs	30.6%	50.9%	5.2%	3.7%	9.6%
ESV - Fin meets District needs	29.9%	54.3%	7.7%	3.1%	4.9%
ESV - PPS meets District needs	28.1%	49.1%	7.7%	4.0%	10.8%
ESV - SSS meets District needs	10.2%	18.8%	8.0%	4.6%	58.3%

More than 81 percent of respondents believe that the software supported by their ESV Region is effective and supports their district needs. This high rate of support indicates broad satisfaction. This support is generally consistent among each of the district size groupings. The agreement is most predominant in Regions V and VII. Nearly 9 percent disagree, with disagreement most predominant is among larger school districts and Regions I and III. A high proportion of no opinion responses are found among the very small districts and in Regions III and IV.

The ESV-FIN financial systems are reported to meet the district needs of more than 84 percent of all respondents. The strongest agreement is found among smaller districts and Regions I, IV, and V. Approximately 11 percent of districts disagree, with the predominant disagreement among intermediate and large districts and Regions III, VI, and VII. Less than 5 percent of respondents have no opinion, with much of this position found among intermediate districts and in Regions III and IV.

The ESV-PPS personnel payroll systems are reported to meet the district needs of more than 77 percent of respondents. The strongest agreement is reported among small to intermediate districts, and in Regions I and V. Nearly 12 percent disagree, with much of this disagreement found among larger districts and Regions III, VI and VII. Nearly 11 percent of respondents have no opinion, found particularly among intermediate districts and in Regions II, III and IV.

Finally, the ESV-SSS student information systems are reported to meet the districts needs of 29 percent of respondents. This agreement is predominant among large districts and in Regions I, II, and VII. Nearly 13 percent disagree, with much of the disagreement among intermediate and large districts, and in Regions III, V, and VI. A large portion of respondents, more than 58 percent, have no opinion. Much of this was reported by small and intermediate districts, and in Regions I, IV, and V.

c. Timeliness of regional support and services

Three aspects of timeliness for ESV Region support and services were explored. Overall results are as follows:

	Strongly agree	Agree	Disagree	Strongly disagree	No opinion
Region staff provide timely support	49.7%	42.3%	3.4%	.9%	3.7%
Region keeps us informed of reporting changes in timely manner	41.0%	52.2%	2.8%	.6%	3.4%
Data processing is completed within a reasonable timeframe	43.5%	42.9%	5.6%	1.2%	6.8%

Ninety two percent of all respondents believe that their ESV Region provides timely support to meet their district needs. Somewhat more than 4 percent disagree, while nearly 4 percent have no opinion.

More than 93 percent of all respondents believe that their ESV Region keeps the district informed of state and regional data and reporting charges in a timely manner. Somewhat more than 3 percent disagree, while somewhat more than 3 percent have no opinion.

More than 86 percent of all respondents believe that their ESV Region completes data processing within a reasonable time period. Nearly 7 percent disagree, and nearly 7 percent have no opinion.

d. Regional support and quality of service

Six aspects of regional support and quality of regional service were explored. Overall results are as follows:

	Strongly agree	Agree	Disagree	Strongly disagree	No opinion
Region staff are a broad resource for management information	35.5%	47.8%	5.6%	1.9%	9.3%
Region staff are knowledgeable of systems supported	46.6%	47.2%	1.2%	0.0%	4.9%
Region staff provide training appropriate to our needs	36.7%	54.3%	3.1%	.9%	4.9%
Region range of services meets our changing needs	23.8%	59.9%	7.7%	2.8%	5.6%
Region staff are cooperative and helpful	57.1%	39.2%	1.2%	0.0%	2.2%
Region quality of service is satisfactory	41.4%	46.6%	4.9%	1.9%	5.2%

More than 83 percent of respondents believe that the ESV Region staff are a resource to provide a broad range of management information. Agreement is generally uniform among all sizes of districts and in all Regions. Somewhat more than 7 percent disagree, with much of this disagreement found among small and large districts, and in Regions III and VII. More than 9 percent have no opinion, with much of this opinion found among very small districts and in Regions IV and V.

Nearly 94 percent of respondents believe that the regional staff are knowledgeable of the systems supported by the Region. Somewhat more than 1 percent disagree, and nearly 5 percent have no opinion.

Ninety one percent of respondents believe that the ESV Region staff provide training which is appropriate to their needs. Four percent disagree, and nearly 5 percent have no opinion.

Nearly 84 percent of respondents believe that the range of services provided by their ESV Region meets the changing needs of their district. This agreement is found across the range of district sizes, and is strong in Regions II and V. Somewhat more than 10 percent disagree, with disagreement most prominent among larger districts and in Regions III, VI, and VII. Nearly 6 percent have no opinion, found predominantly among very small districts and in Regions I and IV.

More than 96 percent of respondents believe that the ESV Region staff are cooperative and helpful. Somewhat more than 1 percent disagree, and somewhat more than 2 percent have no opinion.

The overall quality of ESV Region service is satisfactory to 88 percent of respondents. Agreement is found among all district sizes, and particularly in Regions II and V. Nearly 7 percent disagree. Most of this disagreement is found among intermediate and large districts, and in Regions I, III, and VII.

e. Regional cooperation and participation

Two aspects of cooperation and participation were explored. Overall results are as follows:

	Strongly agree	Agree	Disagree	Strongly disagree	No opinion
ESV Region has fostered inter-district cooperation	13.3%	34.3%	24.4%	5.6%	22.2%
ESV Region provides adequate opportunity to participate in developing policies	21.6%	46.6%	9.0%	4.6%	18.2%

Nearly 48 percent of respondents believe that their ESV Region fosters interdistrict cooperation. The strongest support is found among very small and large districts, and in Regions II, VI, and VII. 30 percent of respondents disagree, with disagreement across all district sizes and in Regions I, III, IV, and V. More than 22 percent have no opinion, found predominantly among very small and intermediate districts, and in Regions III, IV, and V.

More than 68 percent of respondents believe that their ESV Region provides adequate opportunity for their district to participate in developing regional policies. Agreement is particularly strong among large and very large districts, and in Regions II, V and VII.

More than 13 percent disagree, with disagreement found among small and very large districts, and in Regions I and III. More than 18 percent have no opinion, found among very small districts and in Regions I, III and IV.

f. Benefits of regional support

One aspect of benefits and understanding of ESV Region support was explored. Overall results are as follows:

	Strongly agree	Agree	Disagree	Strongly disagree	No opinion
Benefits of ESV Region participation outweigh shortcomings	39.2%	45.1%	4.6%	5.6%	5.6%

More than 84 percent of respondents believe that, in general, the benefits of participating with their ESV Region outweigh the shortcomings. Agreement is generally consistent among school district sizes, and strongest in Regions I, II, V, and VII. Ten percent disagree, with disagreement found among intermediate and large districts and Regions III, and IV. More than 5 percent have no opinion, found mostly among small districts.

g. Location and administration of ESV Region support

Five aspects of location and administration of ESV Region location and administration were explored. Overall results are as follows:

	Strongly agree	Agree	Disagree	Strongly disagree	No opinion
Region center location is appropriate to district needs	26.2%	53.1%	9.3%	4.0%	7.1%
Administrative structure of Region meets district needs	27.8%	50.9%	6.2%	1.9%	13.3%
Training support should be provided by other regional organization	3.4%	7.1%	43.8%	32.7%	12.3%
District understands capability and activities of ESV Computer Council	12.0%	44.8%	18.5%	5.9%	18.2%
Districts is adquately represented in ESV Computer Council actions	13.6%	35.2%	15.7%	7.4%	27.8%

More than 79 percent of respondents believe that their ESV Region is appropriately located for their district needs. This agreement is strongest in Regions II, V, VI, and VII. Somewhat more than 13 percent disagree, primarily in Region I. More than 7 percent have no opinion, primarily in Regions I and IV.

Nearly 79 percent of respondents believe that their regional administrative structure meets their district needs. The strongest agreement is among intermediate and large districts and in Regions II, IV, and V. More than 8 percent disagree, primarily among intermediate and very large districts, and in Regions I, III, and VII. More than 13 percent have no opinion, found primarily among very small districts, and Regions I and III.

Somewhat more than 10 percent of respondents believe that training support should be provided by a regional organization other than the ESV Region. Much of the agreement is found in Region IV, where the ESCU administers ESV Region activities. More than 76 percent disagree, and more than 12 percent have no opinion.

Nearly 57 percent of respondents believe their district understands the capability and activities of the ESV Computer Council. Agreement is strongest among intermediate size districts and in Regions II, and VI. Somewhat more than 24 percent disagree, with disagreement found primarily among very small and very large districts, and in Regions III, IV, and VII. More than 18 percent have no opinion, found among very small districts, intermediate districts, and Regions I, IV, and V.

Nearly 49 percent of respondents believe that their district is adequately represented in ESV Computer Council policy decisions and recommendations. This agreement is strongest among small and intermediate districts and in Regions II, and V. More than 23 percent disagree, predominantly among large districts and in Regions I, III, VI, and VII. Nearly 28 percent have no opinion, primarily among small districts and Regions IV, V, and VI.

h. Special requests and services

Two aspects of special requests and services were explored. Overall results are as follows:

	Strongly agree	Agree	Disagree	Strongly disagree	No opinion
Region satisfies district special report requests	41.0%	42.9%	3.7%	1.2%	11.1%
Region staff should perform district business manager functions	4.0%	6.2%	44.0%	34.9%	13.9%

Nearly 84 percent of respondents believe that the ESV Region satisfies their district's need for special reports. Nearly 5 percent disagree, while approximately 11 percent have no opinion.

Somewhat more than 10 percent of respondents believe that their ESV Region should perform business manager functions to support district administration. Nearly all of this agreement is from small and very small school districts. Nearly 79 percent disagree, primarily among intermediate and large school districts. Nearly 14 percent have no opinion, primarily among small districts.

i. Telecommunications and information access

Two aspects of telecommunications and information were explored. Overall results are as follows:

	Strongly agree	Agree	Disagree	Strongly disagree	No opinion
Access to other agency information would be useful	6.2%	37.3%	11.1%	5.2%	40.1%
Access to proposed intra-state telecommunications network would save staff time	7.4%	30.9%	11.7%	4.6%	45.4%

Somewhat more than 43 percent of respondents believe that access to information collected by other public agencies would be useful to their district. The strongest support is found among intermediate and large districts. More than 16 percent disagree, primarily smaller school districts. More than 40 percent have no opinion, with this group primarily being small to intermediate size districts.

More than 38 percent of respondents believe that access to the proposed intra-state telecommunications network would save staff time for their district. The strongest support is among intermediate and large districts. More than 16 percent disagree, many being small districts. More than 45 percent have no opinion, with most among small districts.

B. Interview Recap

Interviews were conducted with selected school districts, administrators of the seven ESV Regions, Directors of the nine ECSU regions and officials of the Department of Education, Department of Administration and the Legislative Auditor's Office. Over forty interviews were conducted, the majority in person and the remainder by telephone. In addition, numerous follow-up telephone contacts were made.

1. School District Interviews

Superintendents or business managers were interviewed in 23 school districts. The selected districts represented small, medium-sized and large districts in metropolitan, regional growth and non-metro areas.

The interviews were performed as a means of validating the survey data collected and to obtain information on the school districts' perceptions about the structure and services of regional administrative computing support. The interview topics included:

- Regional services
- In-district and other computing services and support
- Plans for IDB implementation
- Administrative education relationships - ESV Region, ESV Computer Council, ECSU, etc.
- Costs for computer processing and service support
- Administrative requirements for a statewide telecommunications network

In general, the information collected in the school district interviews substantiates the survey results and responses to open-ended questions in the survey questionnaire.

There are different needs for computing services in the larger, metropolitan districts than in the smaller, non-metro districts. Many of the larger districts interviewed expressed concern about the lack of enhancements in regional software that might take advantage of advances in computer technology. The smaller districts are concerned about what will happen to their costs if the larger districts choose in-district processing and withdraw financial support of the ESV Region.

It is no surprise that the opinions from the district interviews were significantly varied. In order to clarify these responses, we have categorized many of the comments by district size and topic.

Large districts (5,000 or more students):

- Want more control over decisions about how ESV Region money is spent
- Need more software alternatives
- Believe ESV Regions are trying to satisfy too many diverse district needs
- Want to be more free to move between regions (constraints of capital commitment)
- Believe fees should be based more on usage and less on membership
- Feel Regions are too reactive, not enough long range planning
- Perceive big impact on districts to collect data for IDB

Medium-sized districts (1,000 to 4,999 students):

- Believe processing requirements could more easily be supported by in-district systems
- Believe the state should provide technical requirements to private companies to support the software instead of maintaining it themselves
- Perceive need more support for alternative systems (e.g. software requirements)

Small districts (0 to 999 students):

- Do not forsee much impact on district to collect data for IDB
- Rely on ESV Region for technical and administrative support
- See state-wide computer network for processing as more efficient than district actions
- Believe IDB will provide better data representation for them at the state level. Legislature will be able to better understand the needs of small districts
- Believe districts should be on in-district systems or all use ESV Region

All districts:

- See IDB providing valuable information for Legislature and Department of Education use
- Lack an understanding of ESV Computer Council role
- Have mixed opinions on direct benefits of IDB and believe payback may not occur for 2-3 years
- Believe ESV Region may not be necessary as a computing center, instead the role should be only software support. Also believe computing could be done less expensively and more effective locally
- Believe the Legislature and Department of Education continually expect more for less financial support
- Do not perceive that the services provided by ESV Regions and ECSUs overlap

2. ESV Regional Computing Center Interviews

In-depth interviews were conducted with executive level personnel at each of the ESV Regions. The interviews were conducted following a review of each Region's 1989-90 plan and budget submitted to the ESV Computer Council. Information was collected and verified on the following topics:

- Mainframe application services provided to districts
- Microcomputer services provided to districts
- Training and business management support services
- Plans for IDB implementation
- Regional organization and structure
- Relationships with other entities - ECSUs, ESV Computer Council, MDE, vendors, etc.
- Computer environment and capacity
- Costs - fee structure, budget, capital assets in computer equipment

While all of the ESV Regions provide computer processing and support for the basic ESV-FIN mainframe software for UFARS reporting, and for payroll/personnel, there is a wide variation in additional district services offered by ESV Regions. These cover the range of additional mainframe application software, in-district microcomputer support and business management assistance. The information obtained from these interviews has been consolidated into the ESV Region profiles presented in Section II.C.

3. State Department Interviews

Interviews were conducted with the Minnesota Department of Education Deputy Commissioner and Assistant Commissioners of Instructional and Management effectiveness, with the Assistant Commissioner of the Department of Administration responsible for the InterTechnologies Group, and with an Auditor in the Office of the Legislative Auditor - Program Evaluation Division.

MDE officials view the ESV Regions as providers of services to school districts and collectors of information needed by the state for use in management decision-making. They believe that options should be available to the school districts in how the information is collected, with state standards for certain summary information. Because the MDE does not have sufficient resources to collect information individually from each district, they support the regional computing center concept to collect and transmit district data to MDE.

The InterTechnologies Group is currently evaluating several alternatives for STARS, a proposed statewide network of data, voice and, possibly, video communications that will serve state and local government agencies, educational institutions and other public entities. While there are many questions that are still unanswered about STARS and how it will be implemented, STARS could facilitate improved and less costly access to information by the school districts through ESV Regions. Some of the current constraints in data collection and on-line access to existing data bases could be eliminated and improvements could be realized in locations where the quality of current telecommunications transmission is poor.

Currently, the office of the Legislative Auditor - Program Evaluation Division is conducting a study of school district spending. The effort involves collecting data and analyzing how 128 UFARS object codes are used by districts. These steps are focused on addressing the following key questions:

- How accurate is the expenditures data submitted to the state by school districts?

- How much do school districts spend for specific programs, activities and services?

This study will be completed for presentation at the next legislative session. Draft findings were not available to incorporate into this report.

4. ECSU Interviews

Interviews were conducted with the Executive Directors of the nine ECSU centers. Initially, the project team met with the Chairman of the ECSU Directors Group to obtain background information and an overview of the ECSU structure and relationships.

Subsequently, a personal or telephone interview was conducted with each ECSU Executive Director. The interviews focused on the following topics:

- School district population served
- Services provided to school districts,
- Administrative management information services to districts
- Overlap of services between ECSUs and ESV Regions in computing support
- Structural ties or relationships to ESV Regions
- Working relationships with the ESV Computer Council and MDE

A listing of ECSU locations is provided in Appendix B. Results of the interviews are contained in Section II.E.

5. School District Survey Comments

In addition to the interviews from school districts, comments were solicited through the open-ended questions on the district survey. There was a very high response rate of more than 55 percent to each question. A summary of the most common responses is as follows:

a. New services sought from ESV Regions

- Enhanced ESV Region software with more flexibility, easier and real-time processing
- ESV Region support for vendor/stand-alone district-based systems
- More support for microcomputers, including Macintosh
- Additional software applications (IDB, electronic mail, instructional management, library services, etc.)
- Business management advice
- Computer network assistance (direct links, download, modern phone lines, etc.)
- Support for current services is adequate

b. ESV Region Service costs

- ESV Regions provide cost effective service
- In-district system may or may not be less expensive than regional cost, but are more flexible and timely in reporting
- Costs for regional processing and in-district system may be similar
- ESV Region costs are rising faster than district costs

c. Changes in the structure for administrative computing support

- The state mandates the data collection, so it should provide more/all funding
- The state subsidy provided to ESV Regions should go directly to districts
- More options for administrative computing support should be provided to districts

d. Opportunities for consolidation of ESV Regions

- Don't consolidate
- Consolidation would result in less effective service, less staff support, less satisfaction, etc.
- Acceptable if the same service is provided at comparable or lower costs
- Consolidation would not have impact on districts
- Consolidation would create geographic discrepancies
- ECSUs and ESV Regions have different missions and should not be consolidated

e. Additional comments

- Regional support works well now, so don't change it
- There is a need more advance planning in providing regional support

There was a wide diversity of comments, some of which were raised by only one or a few districts. In order to appreciate the variety of these responses, some of them are listed below:

- Current services are outdated and inefficient
- Regional representatives should visit all districts
- MDE should run everything
- Regional services should be totally user funded
- Smaller district will be shortchanged if larger ones abandon ESV Regions
- The State mandates, then walks away from its responsibility
- There is a need more professional representation on Boards of Directors
- ECSUs could be combined into ESV Regions but not vice versa
- Centralize administrative computing support with one statewide region
- Have a separate ESV Region for districts with micro systems
- We are satisfied but have to continuously lobby for preservation

C. ESV Regional Computer Center Profiles

Introduction

In 1981, the Legislature required all school districts to collect financial data in compliance with the UFARS standard and report this information through regional computing centers rather than directly to the Department of Education. The number of regions was not specified, nor were geographical constraints placed on the formation of regions. Any school district was free to join any region that would meet its needs.

Most of the centers were already in existence in 1981 but not all districts utilized their services. There are currently seven ESV Regional Computer Centers serving the 436 school districts in the state; two serving primarily the Twin Cities metropolitan area and five serving the rest of the state. They have evolved primarily along geographical boundaries, although a few school districts belong to ESV Regions outside their area. The ESV Regions initially offered a narrow range of mainframe computer batch processing for UFARS applications.

Today many ESV Regions offer a wide variety of services, including online realtime mainframe systems; in-district micro computer support, and technical, financial, and business management assistance.

The ESV Regions have common characteristics, and each has characteristics which can be considered unique. In order to compare and contrast the different regional centers, a summary profile of each ESV Region was developed, based on the information collected through the plans, budgets, interviews and surveys. The profiles are grouped into the following categories:

- Demographics and organizational structure
- Computing and support services
- Costs and computing environment
- Unique characteristics

The profiles provide an outline of the structure, services and costs at the regional centers. Additional detailed information is available in the 1989 ESV Region Plans and Budgets submitted to the ESV Computer Council.

1. ESV Region I - ESV Data Processing Cooperative (Moorhead)

a. Demographics and Organizational Structure

ESV Region I in Moorhead was established in 1977; data processing services started in 1978. It serves school districts in the northwestern part of the state. It covers a geographical area of approximately 23,000 square miles.

Region I provides data processing services to the following member operating units:

91 school districts K-12
20 other reporting units (co-ops and technical institutes)

The number of K-12 students served is: 62,914.

The K-12 school district student population is described as follows:

Number of K-12 students	Number of districts	Percent of districts
0-499	57	62.6%
500-999	18	19.8
1,000-1,999	10	11.0
2,000-4,999	6	6.6
5,000 +	0	0
TOTAL	91	100%

The smallest district has 69 students. The largest district has 4,965 students.

This is the largest geographic region but its districts serve only 9 percent of the total school district population. Over 80 percent of the member districts have less than 1,000 students. There is a growing trend for districts to consolidate or combine operations, which will result in fewer units reporting through the region.

Region I is governed by a Board of Directors of 9 members consisting of school district Board Members elected at large. An Advisory Committee of three Superintendents makes recommendations to the Executive Director. The Region's Executive Director is responsible for a staff of 14 FTEs. The staff is divided into the functional areas of 1) Finance, 2) Student Services and 3) Payroll.

Region I shares their computer resources in a joint venture with Region IV. These two regions formed the Western Minnesota Multiregional Computer Facility (MRCC) in 1981. Computer processing is provided by MRCC to districts in both regions and the costs are shared according to a cooperative agreement. Support services to member districts (training, accounting assistance, etc.) are provided individually by the Region.

There are two ECSUs serving the same geographical region as ESV Region I - West Central ECSU and Northwest Minnesota ECSU. The Region and the ECSUs have an agreement not to provide services that overlap each other. They attend each others' meetings when possible.

b. Computing and Support Services

The ESV mainframe systems available for processing at the Region are the Finance System (ESV-FIN), the Personnel/Payroll System (ESV-PPS) and the Student Services System (ESV-SSS). There are six districts using alternative finance systems. The alternative systems are not supported by the Region. K-12 school district utilization of the ESV systems as of September 1989 is as follows:

System	Number of districts
ESV-FIN	85
Alternative FIN	6
ESV-PPS	80
ESV-SSS	30

The largest growth in recent years has been in the use of the on-line student services system, and this trend is expected to continue. Minimal support is provided to the districts in the use of microcomputers. However, this is a growing area of need, and additional support is anticipated in the future. Some districts print reports locally but most reports are printed at the Region and mailed or delivered to the districts. As more districts convert from older-style CRTs to more intelligent workstations, it is expected that additional functions such as downloading and printing will be performed at districts.

The Region provides technical assistance on each of the systems operated at the computer center. Business manager services are provided as a backup when a district loses key personnel. The Region receives many requests for special reports and is able to meet these requests with the current staff.

Training is provided on the use of the systems operated at the Region at different locations throughout the region in order to minimize district travel time. If the district hires a new employee, initial training is held at the Region, and follow-on training is later held at the district.

Full-scale implementation of the Integrated Data Base is currently on hold at Region I. Assistance is provided to those districts that are voluntarily proceeding.

c. Costs and Computing Environment

1) Fee Structure

Charges to member districts consist of a flat membership fee per school district and user fees per student for each software application that is used. There is no utilization charge, with the exception of some special forms usage. All services are provided by the fees, including use of the computer, disk storage, data entry, printing and telecommunication line costs.

The budget and subsidy provided by the state for the most recent three years are as follows:

	Actual/Budgeted(B)	State Subsidy
FY88	$1,195,560	$412,480
FY89	$1,159,480 (B)	$412,480
FY90	$1,184,968 (B)	$412,480

Fees to the districts have not been raised in the last three years, while the amount of state subsidy has remained constant.

2) Computing Environment and Capacity

Central Processor	Unisys A12E
Date Installed	June 1988
Disk Storage	6 billion bytes
Number of Tape Drives	6
Number of Line Printers	1
Number of Page Printers	1
Number of Leased Lines	8
CRT/Microcomputer Connections	116
CPU Capacity Utilized	50%
Current Disk Capacity	Insufficient for full IDB implementation

3) Capital Assets Investment

Book value of mainframe computer equipment and peripherals for MRCC, serving the Moorhead and Marshall Regions is $810,000. This approximates the market value of the equipment. The Region has a long-term lease with Unisys for $680,000 for 54 remaining months as of June 30, 1989.

A special assessment fee to support equipment acquisition was levied for districts in Regions I and IV to be paid in one year (Region IV) or over five years (Region I option).

d. Unique Characteristics

- The MRCC joint venture with Region IV
- Fees are based entirely on membership and enrollment
- Fees to districts have remained constant for three years
- The majority of school districts have student enrollment of less than 500

2. ESV Region II - Arrowhead Regional Computing Consortium (Duluth)

a. Demographics and Organizational Structure

ESV Region II, known as ARCC, was established in 1975. It primarily serves school districts in the northeastern part of the state. It covers a geographical area of approximately 18,000 square miles.

ARCC provides data processing services to the following member operating units:

34 school districts K-12
10 other reporting units (co-ops and technical institutes)

The number of K-12 students served is: 54,075.

The K-12 school district student population is described as follows:

Number of K-12 students	Number of districts	Percent of districts
0-499	7	20.6%
500-999	10	29.4
1,000-1,999	8	23.5
2,000-4,999	8	23,5
5,000 +	1	3.0
TOTAL	34	100%

The smallest district has 80 students. The largest district has 13,798 students. The student population is expected to remain stable in the next few years.

Many districts are under severe financial constraints and have had administrative staff cutbacks. Some districts share business managers. Eight have eliminated the business manager position due to financial constraints.

ARCC is governed by a Board of Directors of 11 members which includes: two members from four district size categories, two district Business Managers, and one district Student Services Manager. The presence of Business and Student Services Managers on the Board is unique to Region II. The Region's Executive Director is responsible for 16 full-time and 4 part-time staff equal to 18 FTEs. The staff is divided into the functional areas of 1) Systems and Programming and 2) Services.

ARCC maintains a backlog of project requests from the districts. There are several user committees which make recommendations on desired modifications and special requests to the Executive Director and to the Board. Requested changes to the ESV-IS software are submitted at the regular meetings of the State Management Teams with Metro II. ARCC makes limited unique changes to the state software to accommodate district requirements.

The Northeast Minnesota ECSU has the same geographical boundaries as the ESV Region. There is no formal affiliation between the ECSU and ARCC.

b. Computing and Support Services

The ESV mainframe systems available for processing at the Region are the Finance System (ESV-FIN), the Personnel/Payroll System (ESV-PPS) and the Student Services System (ESV-SSS). Some districts are still using an older, custom-developed payroll system, and the Region is in the process of migrating them to ESV-PPS. No alternative finance systems are supported by the Region, and two districts with in-house systems (Lake Superior and South Koockiching) recently changed to Region III. K-12 school district utilization of the ESV systems as of September 1989 is as follows:

System	Number of districts
ESV-FIN	34
Alternate FIN	0
ESV-PPS	30
ESV-SSS	22

All except two districts have on-line access and update capability to the Student Services System. The Finance and Payroll systems are predominately operated in a batch mode and data entry is provided at the Region. Most reports for all three systems are printed at the Region and mailed or delivered to the districts. The financial data is edited and reviewed by the Region, and discrepancies are pointed out to the districts. The Region does not provide support to the districts in the use of microcomputers. Downloading of data on diskettes to the districts is supported; however uploading of data on diskettes has not been requested by the districts.

The Region provides technical assistance in all of the systems operated at the computer center. Since many districts do not have business managers on staff (8 out of 20 districts have eliminated this position), the Region supplements the districts' efforts with regional staff expertise to provide backup in emergencies. The amount of technical assistance provided to districts is more extensive than most ESV Regions.

Training is provided on the use of the mainframe systems. The sessions are held in different locations throughout the region to reduce district travel time. In some cases, individual sessions are held at districts.

Full-scale implementation of the Integrated Data Base is currently on hold at ARCC. Some districts, primarily the larger ones, will voluntarily participate in those portions of the data collection which they perceive has value to their district. ARCC will support this effort and pass the collected data to MDE.

c. Costs and Computing Environment

1) Fee Structure

Charges to member districts are exclusively on a per student basis. There is no utilization charge, with the exception of some special forms usage. The per student fees are split into a membership fee for the computer hardware cost and a service fee for each of the applications used. In addition to full service application fees, special service fees for training, consulting and submission of district data are also available. All services are provided in the full service fee, including CPU time, disk storage, data entry, printing and telecommunication line costs. When the new computer was purchased, a special fee per student was assessed. This fee will be spread over five years.

The budget and subsidy provided by the state for the most recent three years are as follows:

	Actual/Budgeted(B)	Subsidy
FY88	$1,027,871	$357,330
FY89	$1,171,480 (B)	$357,330
FY90	$1,258,917 (B)	$357,330

Additional funding will be needed to fully implement the IDB.

2) Computing Environment and Capacity

Central Processor	Unisys A10FX
Date Installed	January 1988
Disk Storage	3 billion bytes
Number of Tape Drives	4
Number of Line Printers	2
Number of Leased Lines	3
CRT/Microcomputer Connections	90
CPU Capacity Utilized	85-90%
Current Disk Capacity	Close to capacity, IDB will require addition

The telecommunications lines are poor quality in some areas.

3) Capital Asset Investment

Book value of mainframe computer equipment and peripherals is $620,606. This is somewhat above the market value of the equipment. The Region has a long-term lease with Unisys for $429,409 for four years.

A fee for the most recent hardware acquisition was assessed on a per student basis over a five year period.

d. Unique Characteristics

- Fees are based entirely on membership and enrollment
- Business managers serve on governing board
- No districts are using alternative finance system
- The Region is using the old payroll/personnel system, but migrating districts to ESV-PPS
- The Region provides no microcomputer support

3. ESV Region III (St. Cloud)

a. Demographics and Organizational Structure

ESV regional computing was organized in 1974 as a function of CMERDC and created as a separate organization in St. Cloud in 1977. It primarily serves school districts in the central part of the state. Five member districts are located outside the geographical boundaries of the Region. The geographical area covers approximately 12,000 square miles. Within the area, the most distant school district is 145 miles from St. Cloud. The most distant district served, Lake Superior, is 400 miles away.

Region III provides data processing services to the following member operating units:

71 school districts K-12
18 other reporting units (AVTIs, co-ops, ECSUs, etc.)

The number of K-12 students served is: 97,642.

The K-12 school district student population is described as follows:

Number of K-12 students	Number of districts	Percent of districts
0-499	20	28.2%
500-999	19	26.8
1,000-1,999	21	29.6
2,000-4,999	8	11.2
5,000 +	3	4.2
TOTAL	71	100.0%

The smallest district has 20 students. The largest district has 10,028 students. The median number of students is 850. This enrollment base is expected to remain relatively unchanged.

Region III serves a large geographic area that includes a range of districts with very large student populations and small districts that are not growing.

Region III is organized under joint powers and is governed by the CMERDC Board of Directors as an organization distinct from CMERDC operations. The Region III Executive Director reports to the CMERDC Board. He is responsible for a staff of 16 FTEs. The regional staff provides services in the functional areas of 1) Finance, 2) Student Services, 3) Payroll and 4) Micro computers. Region III is able to act expediently on project requests, thereby not requiring a formal system to assign project priorities.

There are two ECSUs serving approximately the same geographical region as ESV Region III; ECSU Five and Central ECSU. There is no formal affiliation between the ECSUs and Region III.

b. Computing and Support Services

The ESV systems available for processing at the Region are the Finance System (ESV-FIN), the Personnel/Payroll System (ESV-PPS) and the Student Services System (ESV-SSS). There are sixteen districts using four different alternative finance systems. Alternative finance systems are not supported by the Region, but the Region has plans to select and support certain alternatives in 1989-90. Eighteen districts use Osiris, an alternative student services system, which the Region supports. K-12 school district utilization of the ESV systems as of September 1989 was:

System	Number of districts
ESV-FIN	55
Alternative FIN	16
ESV-PPS	48
ESV-SSS	10

Districts using the Student Services System have on-line access and update capability to this system. The Finance and Payroll systems are operated in a batch mode. Input data is received via paper, or from diskette files that are mailed or transferred over the telephone lines. Downloading and uploading of data to and from the districts is supported. Some reports are printed at the Region and mailed or delivered to the districts, while some reports may sent over phone lines. Some districts schedule their own jobs. The Region provides support to the districts in the use of micro computers.

The Region provides technical assistance in all of the systems operated at the computer center. Many districts rely on regional staff for accounting expertise. The Region operates a Shared Accountant Program. Districts that need a qualified accountant for a limited number of days a year participate in this program (24 districts). The costs are paid by the districts who use this service. This service is unique to Region III.

Training is provided on the use of the systems operated at the Region, and in business management. Training sessions are held in St. Cloud, and may be held in several different locations throughout the Region.

Full-scale implementation of the Integrated Data Base is currently on hold at Region III. Some districts have an interest in voluntarily participation but reporting requirements to MDE have not been clarified.

c. Costs and Computing Environment

1) Fee Structure

Charges to member districts consist of a flat fee for training and coordination, per school district per application basis, service fees per student per application level used and usage fees for CPU and I/O time, forms, data entry and telecommunication lines . All technical services and training are provided in the fees.

The budget and subsidy provided by the state for the most recent three years are as follows:

	Actual/Budgeted(B)	Subsidy
FY88	$1,219,335	$430,989
FY89	$1,183,854 (B)	$430,989
FY90	$1,210,658 (B)	$430,989

2) Computing Environment and Capacity

Central Processor	Unisys A10DX
Date Installed	January 1988
Disk Storage	3 billion bytes
Number of Tape Drives	5
Number of Line Printers	2
Number of Leased Lines	3
CRT/Microcomputer Connections	48
CPU Capacity Utilized	85-90%
Current Disk Capacity	50% for permanent files 15-20% if temporary files resident IDB will require additional space

Where telecommunications lines are poor quality, districts are encouraged to submit data on diskettes.

3) Capital Asset Investment

Book value of the mainframe equipment and peripherals is $610,539 and $10,862 for microcomputers. Book value closely approximates market value. As of June 30, 1989 the region had long term leases of $724,322 over 3 years for mainframe equipment and $10,862 for microcomputers.

There is no separate assessment fee for hardware; it is included in the fee structure.

d. Unique Characteristics

- Five districts are outside geographical boundaries (Lake Superior, South Koockiching, Detroit Lakes, Deer Creek and Henning)
- Shared accountant program

4. ESV Region IV (Marshall)

a. Demographics and Organizational Structure

ESV Region IV in Marshall was established in 1978. It primarily serves school districts in the southwestern part of the state and covers a geographical area of approximately 12,000 square miles.

Region IV provides data processing services to the following member operating units:

87 school districts K-12
21 other reporting units (AVTIs, co-ops, ECSUs)

The number of K-12 students served is: 49,430.

The K-12 school district student population is described as follows:

Number of K-12 students	Number of districts	Percent of districts
0-499	59	67.8%
500-999	14	16.1
1,000-1,999	10	11.5
2,000-4,999	4	4.6
5,000 +	0	0.0
TOTAL	87	100.0%

The smallest district has 16 students. The largest district has 4,100 students. The median number of students is 355.

Region IV serves a large geographic area that includes two large districts, Wilmar and Marshall, and many small districts. Many of the smaller districts are experiencing decline in enrollment. Many small districts anticipate or have implemented pairing of two or more districts to reduce costs and maintain educational programs.

Region IV is an operating division of the Southwest & West Central ECSU. The ECSU is governed by a Board of Directors with representatives from the member agencies. The current Board selects its successor board members.

The ECSU Board also serves as the Board of Directors for ESV Region IV. The MIS Advisory Committee and the Director of Administrative Services, who reports to the ECSU Executive Director, manage the Region. The Director of Administrative Service is responsible for a staff of 14 FTEs. The regional staff is divided into the functional areas of 1) Finance, 2) Payroll, 3) Student System/IDB and 4) Micro computers.

Region IV accepts and maintains a listing of project requests from districts. Depending on the nature of requests, recommendations on desired modifications and special requests are made through the Finance System Manager for MDE or MRCC action.

Region IV shares mainframe computer resources in Region I in a joint venture a agreement. These two regions form the Western Minnesota Multiregional Computer Center ("MRCC"). Computer processing is provided by Region I to districts in both regions, and the costs are shared according to the agreement. Support services to member districts (training, accounting assistance, etc.) are provided individually by each Region.

b. Computing and Support Services

The ESV mainframe systems available for processing at the Region are the Finance System (ESV-FIN) and the Personnel/Payroll System (ESV-PPS). The Student Services System (ESV-SSS) will be supported for the first time in 1989-90. There are fourteen districts using alternative finance systems. The alternative systems were supported by the Region, but the Region discontinued this as of June 30, 1989 and let the districts rely on vendor support. K-12 school district utilization of the ESV systems as of September 1989 was:

System	Number of districts
ESV-FIN	73
Alternative FIN	14
ESV-PPS	63
ESV-SSS	12

Some districts send their input to the Region by leased or dial-up telephone lines. Others send in data to be keyed at the Region (30 districts). Most reports are printed at the Region and mailed or delivered to the districts. Some districts print all or selected reports at the district.

The Region provides support to the districts in the use of micro computers. Downloading and uploading of data at microcomputers is utilized by some districts.

The Region provides technical assistance in all of the systems operated at the computer center. The Region supplements the districts' efforts with regional staff expertise. The Region is planning to implement a shared accountant program.

Training is provided on the use of the systems operated at the Region. Training sessions are generally held in several locations throughout the Region to reduce district travel time.

Full-scale implementation of the Integrated Data Base is currently on hold at Region IV. A district survey is being distributed to solicit input or voluntary cooperation to implement IDB reporting.

c. Costs and Computing Environment

1) Fee Structure

There is a one-time mainframe purchase assessment fee based on districts and students. Other charges consist of user fees per student per application level and usage fees. The usage fees account for 89% of district fees. Districts are charged for computer usage based on a historical percentage and actual data entry and paper. The telecommunications cost are shared equally between all districts. Total telecommunications costs are divided among districts.

The budget and subsidy provided by the state for the most recent three years are as follows:

	Actual/Budgeted(B)	Subsidy
FY88	$ 835,263	$400,075
FY89	$1,256,956 (B)*	$400,075
FY90	$ 909,738 (B)	$400,075

* includes one-time assessment fee for hardware

2) Computing Environment and Capacity

Central Processor	See Region I Profile
Date Installed	-
Disk Storage	-
Tape Drives	-
Number of Line Printers	2
Number of Leased Lines	5
CRT/Microcomputer Connections	14
CPU Capacity Utilized	-
Current Disk Capacity	-

The telecommunications lines are poor quality in some areas, which affects the type of computing support that can be provided to certain districts.

3) Capital Asset Investment

See Region I Profile. The capital assets are shared by the two regional members of MRCC. Region IV also owns microcomputer equipment with a book value of $75,950 and a market value of $53,450.

d. Unique Characteristics

- Currently no student system - changing in 1989-90
- Lowest average per pupil revenue
- MRCC joint venture with Region I
- Provides assistance to paired districts

5. ESV Region V (Mankato)

a. Demographics and Organizational Structure

ESV Region V was established originally in Rochester in 1974 and began providing computing services in 1976. Region V was moved to Mankato in 1978 and today serves school districts in the south central and southeastern part of the state. It covers a geographical area of approximately 13,000 square miles.

Region V provides data processing services to the following member operating units:

98 school districts K-12
31 other reporting units (AVTIs, co-ops, ECSUs, etc.)

The number of K-12 students served is: 99,604.

The K-12 school district student population is described as follows:

Number of K-12 students	Number of districts	Percent of districts
0-499	42	42.9%
500-999	35	35.7
1,000-1,999	12	12.2
2,000-4,999	7	7.1
5,000 +	2	2.1
TOTAL	98	100.0%

The largest district has over 13,000 students. The smallest district has 150 students.

Region V is governed by an eight member Board of Directors elected by member school districts. Each district is in one of four categories based upon number of students. The goal is to have each category represent an equal number of total students.

The Region's Executive Director is responsible for a staff of 18 FTEs. The regional staff provides services in the functional areas of 1) Finance and 2) Payroll/Personnel. Region V uses voluntary In-district Software Advisory Committees ("ISAC") to allow district input into each software application. The ISAC's discuss software enhancements to be presented to the management teams at Metro II. If Metro II rejects the request, Region V reviews it to determine whether the Region should make local modifications.

There are two ECSUs serving the same geographical region as ESV Region V - South Central ECSU (Mankato) and South East ECSU (Rochester).

b. Computing and Support Services

The ESV mainframe systems available for processing at the Region are the Finance System (ESV-FIN) and the Personnel/Payroll System (ESV-PPS). There is one district using an alternative finance system on an AS/400 in Rochester. Alternative systems are not supported by the Region. Austin has purchased an A4 Computer and is operating the ESV-FIN software on it locally. K-12 school district utilization of the ESV systems as of September 1989 was:

System	Number of districts
ESV-FIN	97
Alternative FIN	1
ESV-PPS	89
ESV-SSS	0

Finance and Payroll input data is received via paper, or by diskette file that are mailed in and transferred over telephone lines. Most reports for the two systems are printed at the Region and mailed or delivered to the districts. Printing at districts for short reports and checks is available, and is used by some districts.

The Region provides support to districts in the use of micro computers and productivity aids. Downloading and uploading of data to and from the districts is also supported via utilities written by Region V, or by data capture programs. Region V will also support Osiris, a microcomputer-based student system, when a critical mass of district users is attained.

The Region provides technical assistance in all of the systems operated at the computer center. The Region provides specialized accounting and business management services to districts that request it. This is a concept similar to the Shared Accountant Program in Region III. Districts who need the help of a qualified accountant for a limited number of hours a year may participate in this program. The costs are wholly paid by the districts who use the service.

Training is provided on the use of the systems operated at the Region, and in business management. Training sessions are held in both Mankato and Rochester to reduce on district travel time. In some cases, training is held at districts.

Full-scale implementation of the Integrated Data Base is currently on hold at Region V pending more specific requirements from the state. Approximately 15 to 20 districts have voluntarily continued with IDB data collection. Currently, Region V is prepared to accept data from the districts but the state is not prepared to receive data from the Region.

c. Costs and Computing Environment

1) Fee Structure

Charges to member districts consist of a flat membership fee per district, a support fee per application used (regardless of enrollment) and usage fees for CPU time, I/O time, and number of print lines. All training is provided this fee structure. Special business management services and microcomputer training/support are provided at an hourly rate.

The budget and subsidy provided by the state for the most recent three years are as follows:

	Actual/Budgeted(B)	Subsidy
FY88	$ 966,468	$470,375
FY89	$1,093,970 (B)	$470,375
FY90	$1,120,280 (B)	$470,375

2) Computing Environment and Capacity

Central Processor	Unisys A10DX
Date Installed	July 1987
Disk Storage	2 billion bytes
Number of Tape Drives	5
Number of Line Printers	2
Number of Leased Lines	8
CRT/Microcomputer Connections	22
CPU Capacity Utilized	90%, IDB may require additional
Current Disk Capacity	60% used, IDB will require additional

3) Capital Asset Investment

As of June 30, 1989, book value of the mainframe equipment was $557,559 and for microcomputers was $34,279. The book value is approximately equal to market value. As of June 30, 1989, long term lease for mainframe equipment was $634,403 for 42 remaining months.

There is no separate assessment fee for hardware upgrades; it is treated as a cost of business and included in the fee structure. The Region V Board and districts have agreed that there is less animosity by not requiring districts to make a commitment to stay at the Region.

d. Unique Characteristics

- No districts currently use the student service system
- Austin operates the ESV-FIN software on their own Unisys A4 and receives support from Region V
- Specialized accounting and business management services

6. ESV Region VI - Metro II (St. Paul)

a. Demographics and Organizational Structure

ESV Region VI, known as Metro II, was established in St. Paul in 1972. It serves six independent school districts and one intermediate district in the Twin Cities metro area.

Metro II provides data processing services to the following member operating units:

6 school districts/intermediate districts K-12
3 other reporting units (AVTIs,coops)

The number of K-12 students served is: 117,104.

The K-12 school district student population is described as follows:

Number of K-12 students	Number of districts	Percent of districts
0-499	0	0%
500-999	0	0
1,000-1,999	0	0
2,000-4,999	0	0
5,000-9,999	1	17
10,000 +	5	83
TOTAL	6	100%

The smallest district has 8,838 students. The largest district has 39,680 students.

Metro II is governed by a Board of Directors including two or three representatives from each of the six independent school districts and the one intermediate district. The Regional Executive Director is responsible for a staff of 42 FTEs. The regional staff provide services to districts in the areas of 1) Operations Assistance (mainframe/micro), 2) Office Productivity, Micro Training and Support, 3) Mainframe System Training and Support. In addition, Metro II develops and maintains the software for the systems under contract to the MDE, which is used by all Regions except TIES and provides computing resources to MDE.

Metro II maintains a backlog of project requests from the districts, and relies on user committees to prioritize on desired modifications and special requests.

There is one other ESV Region, TIES, in the Twin Cities metro area and one ECSU, the Metro ECSU 11. The Executive Directors of these three agencies meet periodically to discuss services offerings and issues.

b. Computing and Support Services

The ESV mainframe systems available for processing at the region are the Finance System (ESV-FIN), the Personnel/Payroll System (ESV-PAYPER) and the Student Services System (ESV-SSS). There are no districts using alternative finance systems. The finance and payroll systems are designed specifically for use by large, complex districts. K-12 school district utilization of the ESV systems as of September 1989 was:

System	Number of districts
ESV-FIN	6
Alternative FIN	0
ESV-PAYPER	6
ESV-SSS	6

All systems are operated by the districts using minicomputers or microcomputers, or terminals linked to the mainframe. The districts have almost complete control over submission of input data, scheduling and execution of jobs and printing at the district. All of the systems operate in the on-line mode. Mainframe optical scanning is performed at the Region. Other data entry is generally a district function but is available at the Region in exceptional circumstances. Printing is available at the Region when needed on a backup or emergency basis. This operation in a distributed processing mode makes Metro II unique among the Regions.

In addition to these three systems, Metro II supports other applications on the mainframe and on micro computers in the districts. These applications include a technical college student system, statistical data analysis software ("SPSS") and a variety of micro systems including free and reduced price lunch, transportation, food management, community education, marketing, computer-managed instruction, purchase orders, work orders, office automation and statistical analysis. File transfer, remote diagnostics, electronic mail and downloading and uploading of data to and from the districts are also supported.

The Region provides training, problem resolution and general user support services on the systems operated both in the district and at the computing center. Technical accounting and payroll assistance is also provided.

The MDE also utilizes the Metro II computing facility for most of its computing support. They are the largest daytime user of the facility.

Significant changes have been made to systems by Metro II in anticipation of implementation of IDB. There is additional development needed, however, and, these changes are on hold pending final design and funding support. Some member districts will voluntarily participate in data collection which they perceive has value to their district.

c. Costs and Computing Environment

1) Fee Structure

Charges to member districts are calculated using a complex algorithm. It is based generally at 65% on enrollment and 35% on CPU usage and disk storage utilization. The exception is the Minneapolis district, that is charged a flat fee. All services, including training, are included in the fees. District costs for operations at the district, such as data entry and printing, are paid by the district.

The budget and subsidy provided by the state for the most recent three years are as follows:

	Actual/Budgeted(B)	Subsidy
FY88	$3,410,091	$394,305
FY89	$3,515,350 (B)	$394,305
FY90	$4,273,565 (B) *	$394,305

* includes MDE computer contract and ESV-IS software agreement of approximately $388,000 and $356,000 respectively.

2) Computing Environment and Capacity

Central Processor	Unisys A17H
Date Installed	June 1989
Disk Storage	15 billion bytes
Number of Tape Drives	8
Number of Line Printers	2
CRT/Microcomputer Connections	700+
CPU Capacity Utilized	50%
Current Disk Capacity	Adequate for current operations

3) Capital Asset Investment

As of June 30, 1989, book value of mainframe equipment was $5,667,156 and of microcomputers was $160,653. Book value approximates market value. As of June 30, 1989, the long-term lease on the mainframe of $9,102,880 with 6 years and 8 months remaining, and for microcomputers was $17,341 with 1 year remaining.

While there is no flat assessment fee for acquisition of equipment, districts have a long-term financial commitment to the Region which must be fulfilled if they decide to leave Metro II.

d. Unique Characteristics

- Five out of six independent school districts have over 10,000 students
- Smallest number of member districts
- Special software used by Metro II districts
- Districts operate in distributed processing mode
- Maintain software for MDE
- Provide computer resources to MDE

7. ESV Region VII - TIES-Technology and Information Educational Services (Roseville)

a. Demographics and Organizational Structure

ESV Region VII, known as TIES, was established in 1967. It primarily serves school districts in the Twin Cities metro area (41) and surrounding area (8 districts).

TIES provides data processing services to the following member operating units:

49 school districts K-12
2 member technical colleges
2 other reporting units

The number of K-12 students served is: 249,304.

The K-12 school district student population is described as follows:

Number of K-12 students	Number of districts	Percent of districts
0-499	1	2.0%
500-999	5	10.2
1,000-1,999	7	14.3
2,000-4,999	22	44.9
5,000-9,999	10	20.4
10,000 +	4	8.2
TOTAL	49	100.0%

The largest district has 35,695 students. The smallest district has 359 students.

TIES is governed by a joint Board of Directors consisting of the Superintendent and one School Board representative from each district. The full Board meets once a year. An Executive Committee of eight Board Members is elected by the joint Board. Committee meets monthly and acts on behalf of the full Board.

The Region Executive Director is responsible for a staff of 82 FTEs. The regional staff is divided into the following functional areas of: 1), Administration, 2) Services, and 3) Operations.

TIES has nine User Advisory Committees which meet to review desired modifications and enhancements from member districts and make recommendations to the Executive Director. Small enhancements are undertaken by TIES as ongoing maintenance projects, subject to review by the Advisory Committees.

Most TIES member districts also belong to the Metro ECSU. TIES, METRO II and the Metro ECSU hold periodic meetings to discuss service offerings and issues.

b. Computing and Support Services

The TIES Region operates its own finance, payroll/personnel and student services systems. This makes TIES unique, since all other Regions utilize software maintained by METRO II under contract to the MDE. TIES is currently working on a strategy to use vendor application software to replace certain systems. School district utilization of the standard systems is:

System	Number of districts
Finance	48
Alternative Finance	1
Payroll/Personnel	49
Student Services	49

All member school districts except one use the regional mainframe finance system. One district uses an alternative micro finance system that is supported by the Region. All districts use the payroll/personnel system and the student services system.

TIES issued a Request for Proposal to vendors to provide an administrative applications system in November 1988, and is currently evaluating the responses. It is anticipated that some combination of the Unisys Computerized Accounting and Student Terminal Systems ("CASTS") and TIES developed software will be implemented. This represents a trend toward more reliance on vendors to develop and maintain software operating at the Region.

TIES supports many IBM PC-based microcomputer systems at the districts including finance, food service, community education, library management, student attendance, discipline and scheduling. Uploading and downloading of data files to and from microcomputers is supported, and a finance interface is available for batch creation and check production.

Most districts access their data on-line and perform data entry on-line, with same day batch turnaround. TIES also contracts out large volumes of data entry for districts. Print requests, which are entered on-line, state where the printing is to occur. Some districts take advantage of the remote printing capability, but most printing is done at the Region and delivered to the districts.

TIES provides technical consulting support in district computer resource planning, telecommunications, local area networks, remote-site operations management, security and disaster recovery. Training is provided on the use of the systems operated at the Region and on microcomputers. Most training classes are held at the training center but some training is also held on-site at the districts. The TIES training resource center contains 1,800 microcomputer packages which are available to districts to review and evaluate. Non-member districts can take advantage of this resource for a fee.

Modifications to regional software for collection of the IDB data have been made, but changes for reporting the information are currently on hold until additional funding is provided. Some additional enhancements may be made at the request of districts. The new system will incorporate the IDB requirements as currently defined.

Some TIES software is licensed to run at other Regions. An example is the Community Education Management System ("CEMS") which is used by Metro II districts. TIES also has an arrangement with MECC to market and sell some of the TIES instructional software.

c. Costs and Computing Environment

1) Fee Structure

Charges to member districts are comprised of a per student membership fee for use of the application systems and support services (41 percent) and usage fees for disk storage, CPU batch processing and telecommunications transmissions (59 percent). All training is included in the membership fee. TIES subsidizes the telecommunications charge (for one line) for the cost exceeding $50 per month for any non-metro district. Costs for printing, data entry and microfiche services are charged back to the districts.

The budget and subsidy provided by the state for the most recent three years are as follows:

	Actual/Budgeted (B)	Subsidy
FY88	$5,849,167	$624,883
FY89	$6,103,603	$588,850
FY90	$6,293,039 (B)	$588,850

2) Computing Environment and Capacity

Central Processor	Unisys A15F
Date Installed	April 1987
Disk Storage	21 billion bytes
Number of Tape Drives	8
Number of Line Printers	3
Number of Page Printers	2
Number of Communications Lines	138 (1,200 to 19,200 baud)
Number of Leased Lines	11
CRT/Microcomputer Connections	500
CPU Capacity Utilized	50%
Number of Disk Capacity	Adequate for current operations, IDB to require 1.6 billion bytes

3) Capital Asset Investment

As of June 30, 1989 the book value for mainframe equipment and peripherals was $1,534,279 and for microcomputers was $641,713. The long term lease for the equipment is $1,900,000 for a remaining term of 3 years. There are ongoing leases of $286,000 per year for the two page printers and software site licensing.

d. Unique Characteristics

- Members districts serve over one-third of the state K-12 enrollment
- Majority of districts (73 percent) have over 2,000 students
- Does not use state maintained software
- Extensive range of application systems are provided

- Comprehensive training center
- Microcomputer software resource center
- Certain TIES software is utilized by other Regions

8. ESV Region Summary

a. Demographics and Organizational Structure

Organization

There are three basic organizational structures operating among the Regions:

1) Most Regions are discrete entities administered by a governing Board of Directors, made up primarily of district Superintendents and district board members with delegation to an Executive Committee of the Board in some cases.

2) A cooperative agreement exists between two Regions (I,IV) to share hardware and software. The cooperative is governed by a joint management advisory board with representatives from both Regions.

3) The Region is a division of an ECSU (IV).

	Region						
	I	II	III	IV	V	VI	VII
Organization							
Stand-alone entity	X	X	X		X	X	X
Regional Joint Venture	X			X			
Division of ECSU				X			

ECSU Relationships

One or more ECSUs also operate in the same geographical area as the ESV Regions. With the exception of Region IV, which is a division of the Southwest and West Central ECSU, there are no formal affiliations between the ESV Regions and the ECSUS. There are informal meetings to discuss potential overlap of services between some of the ESV Regions and ECSUs.

Other Relationships

Region III is governed by the same Board as the CMERDC cooperative.

Statewide management team meetings are held regularly between representatives of each of the Regions, METRO II and MDE to discuss maintenance enhancement to the ESV-IS software. The Executive Directors of the also meet monthly.

A schematic of the various relationships for each Region can be seen in Exhibit 1.

ESV REGION RELATIONSHIPS

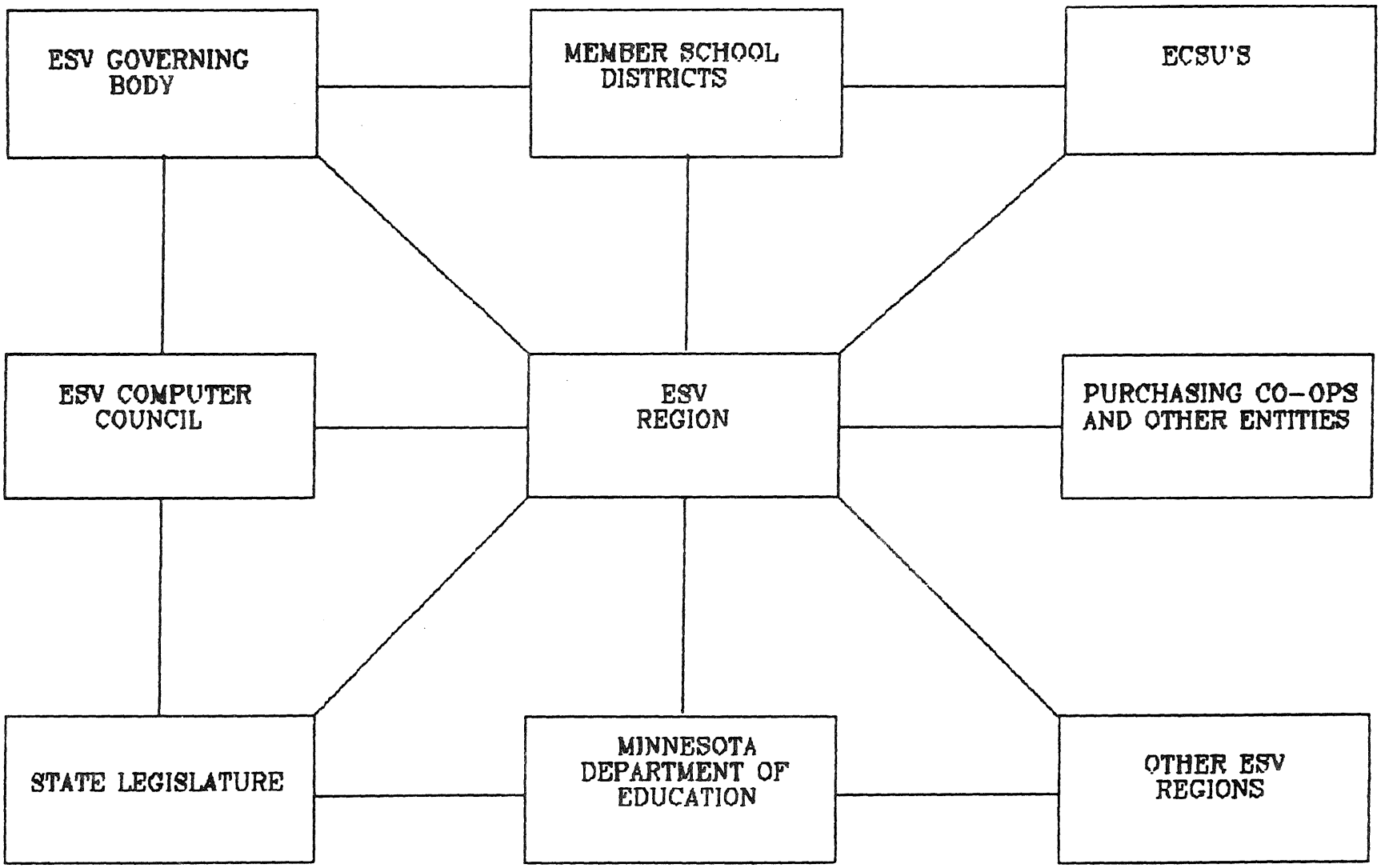


EXHIBIT 1

The following chart summarizes the number of school districts and student served by each of the ESV Regional as of September 1989.

Number and Size of Districts

Region	Number of K-12 Districts	% of Total	District Students	% of Total
I	91	21%	62,914	9%
II	34	8	53,614	7
III	71	16	97,642	13
IV	87	20	49,430	7
V	98	23	99,604	14
VI	6	1	117,104	16
VII	49	11	249,304	34
Total	436	100%	729,612	100%

Metro II has the smallest number of member districts but the second largest number of students. Over one-third of the state's students are served by Region VII-TIES, and 50 percent of the students are served by the two metropolitan regions. The five out-state regions serve a larger number of school districts, but there are fewer students in these areas. The by size of districts is as follows:

Number of Districts by Enrollment Category

Number of Students	Region I	II	III	IV	V	VI	VII
0-499	57	7	20	59	42	0	1
500-999	18	10	19	14	35	0	5
1,000-1,999	10	8	21	10	12	0	7
2,000-4,999	6	8	8	4	7	0	22
5,000 +	0	1	3	0	2	6	14
TOTAL	91	34	71	87	98	6	49
Smallest	69	80	20	16	150	8,838	359
Largest	4,965	13,798	10,028	4,100	13,000	39,680	35,695

b. Computing Services and Support

The ESV administrative systems used by each of the Regions are summarized below. Ninety-one percent of the districts use the mainframe finance system and 9 percent use a microcomputer or minicomputer finance alternative. The largest users of alternative finance systems are in Regions III and IV.

The student services system is the least utilized of the ESV administrative mainframe systems. Region V has no districts using this system and some Region IV districts began using it in 1989-1990.

ESV Systems Utilized by School Districts

Region	FIN	ALTFIN	PPS	SSS
I	85	6	80	30
II	34	0	30	22
III	55	16	48	10
IV	73	14	63	12
V	97	1	89	0
VI	6	0	6	6
VII	48	1	49	49
Total	398	38	365	129

A summary of the computing services and other support services provided by each of the Regions is shown in Exhibit 2. The fee structures used to perform computing and support services are shown in Exhibit 3.

As can be seen, there are very few services that are uniformly offered by all Regions. A few of the services, such as the Shared Accountant Program and the Microcomputer Software Resource Center, are unique to a specific Region.

The regional staff needed to support these services is summarized below. This includes, the personnel required to maintain the ESV-IS software and to support MDEs computing needs.

Regional Staff

Region	Number of Staff	Number of Districts	Total Students
I	14	91	62,914
II	18	34	53,614
III	16	71	97,642
IV	14	87	49,430
V	18	98	99,604
VI	42*	6	117,104
VII	82	49	249,304
Total	204	436	729,612

*includes staff to support MDE contract

ESV Regional Computing Center

K-12 School District Services Summary

REGIONAL SERVICES	ESV REGION I	II	III	IV	V	VI	VII
Mainframe Systems							
Finance % of districts using	94.5%	100.0%	80.0%	83.9%	98.0%	100.0%	98.0%
PPS % of districts using	89.0%	88.2%	70.0%	55.6%	81.6%	100.0%	100.0%
SSS % of districts using	20.9%	64.7%	11.4%	0.0%	0.0%	83.3%	96.1%
Other mainframe applications	5.5%	0.0%	20.0%	14.9%	2.0%	0.0%	2.0%
Alternative Finance	-	-	-	-	-	Y	Y
Microcomputer Support							
Alternative Finance	N	N	Y	N	N	N	Y
Mainframe Linkages	Y	Y	Y	Y	Y	Y	Y
In-district Hardware and Software	N	N	Y	Y	Y	Y	Y
Software Resource Center	-	-	Y	-	-	-	Y
Training							
Mainframe Systems	Y	Y	Y	Y	Y	Y	Y
In-district Micros	N	N	Y	Y	Y	Y	Y
Management Support							
Technical Financial Assistance	Y	Y	Y	Y	Y	Y	Y
Business Manager Functions	-	Y	Y	Y	Y	Y	N
Shared Accountant Program	-	-	Y	-	-	-	-
IDB Implementation							
Full Implementation	N	N	N	N	N	N	N
Assist in voluntary district participation	Y	Y	Y	Y	Y	Y	Y
Continuing some changes	-	-	-	-	-	Y	-
I/O							
Data Entry	Y	Y	Y	Y	Y	Y	Y
Printing and Delivery	Y	Y	Y	Y	Y	Y	Y
Other							
ESV Software Maintenance	-	-	-	-	-	Y	-
MDE Computer Resource	-	-	-	-	-	Y	-

Exhibit 2

ESV Regional Computing Center

Fee Structure

District Fee Structure	REGION I	II	III	IV	V	VI	VII
Hardware Assessment	D & S	S	N	D & S	N	N(1)	N(1)
Region Membership	D	S	D	D	D	D & S (2)	S
Application Support and Training	D & S	S	D & S	S	D	N	N
Usage: CPU time	N	N	Y	N	Y	Y	Y
Disk/IO	N	N	Y	N	Y	Y	Y
Printing	N	N	Y	Y	Y	Y	Y
Data Entry	N	N	Y	Y	Y	Y	Y
Telecomm line	N	N	Y	Y	N	N/A	Y (3)
Membership/Usage Split							
Membership and Service Fees	100%	100%	70%	11%	10%	65%	41%
Usage Fees	0	0	30%	89%	90%	35%	59%
Special Services Charged							
Micro Support	N	N/A	N	N	Y	N	N
Shared Accountant	-	-	Y	Y	-	-	-
Business Management Services	-	-	-	-	Y	-	-
ESV Software Maintenance (charge to MDE)	-	-	-	-	-	Y	-
MDE Computer Usage	-	-	-	-	-	Y	-

Legend: D - Flat fee per district
S - Enrollment fee per student
Y- Yes
N- No
N/A - Not applicable

(1) Obligation if district leaves

(2) Flat fee for Minneapolis; derived fee for others based on usage (35%) and enrollment (65%)

(3) Subsidized for districts outside metro area

A summary of the Region budgets for the last three years is described below. As can be seen, the amount of state subsidy has been steadily decreasing as a percentage of total expenditures. The subsidy per student is smallest in the two metropolitan regions.

ESV Region Budgets

REGION I	Actual/ Budget (B)	Subsidy	Subsidy Per Student	Percent of Budget
FY88	$1,195,560	$412,480		35%
FY89	1,159,480(B)	412,480		36%
FY90	1,184,968(B)	412,480	$6.56	35%
REGION II				
FY88	$1,027,871	$357,330		35%
FY89	1,171,480(B)	357,330		31%
FY90	1,258,917(B)	357,330	$6.66	28%
REGION III				
FY88	$1,219,335	$430,987		35%
FY89	1,183,854(B)	430,987		36%
FY90	1,210,658(B)	430,987	$4.41	36%
REGION IV				
FY88	$ 835,263	$400,075		48%
FY89	1,256,956(B)	400,075		32%
FY90	909,738(B)	400,075	$8.09	44%
REGION V				
FY88	$ 966,468	$470,375		49%
FY89	1,093,970(B)	470,375		43%
FY90	1,120,280(B)	470,375	$4.72	42%
REGION VI				
FY88	$3,410,091	$394,305		12%
FY89	3,515,350(B)	394,305		11%
FY90	4,273,565(B)*	394,305	$3.37**	11%**
REGION VII				
FY88	$5,849,167	$624,883		11%
FY89	6,103,603	588,850		10%
FY90	6,293,039(B)	588,850	$2.36	9%

*includes MDE computer services of $388,000 and ESV-IS software maintenance of $356,000.

**does not include MDE computer services and ESV-IS maintenance dollars

2) Computing Environment and Capacity

The computing environment for the seven ESV Regions is summarized in Exhibit 4.

3) Capital Assets Investment

All of the Regions, with the exception of Region V, recently upgraded their mainframe computing equipment. Region V's proposed upgrade was placed on hold with the change in plans for IDB implementation. Typically, market value of the equipment approximates the book value. Values are as of June 30, 1989.

Region	Book value (1)	Lease obligation (2)
I	$ 810,000	$680,000, 54 months
II	620,606	$429,409, 48 months
III	621,401 (3)	$724,322, 36 months
IV	75,950 (4)	$0
V	591,838 (3)	$634,403, 42 months
VI	5,827,809 (3)	$9,120,221, 80 months
VII	2,175,992 (3)	$1,900,000, 36 months

(1) Less depreciation
(2) Principal and interest
(3) Includes microcomputers
(4) Microcomputers only

4) Telecommunications

Charges for telecommunications as a percent of budget are as follows:

Region	Percent of Budget	Telecommunications Budget FY 90
I	3.0%	$35,549
II	5.5%	$69,240
III	2.3%	$27,845
IV	9.5%	$86,425
V	3.5%	$39,210
VI	1.3%	$55,556
VII	1.4%	$88,103

The two Regions in the metro area have the lowest costs for two reasons; most of their telecommunications is not long distance and their budgets are much larger than the other Regions. Region IV's costs are higher because of line costs to share the computer at Region I as part of MRCC.

ESV Regional Computer Center

Computing Environment

	REGION I*	II	III	IV*	V	VI	VII
Unisys Mainframe	A12E	A10FX	A10DX	A12E	A10DX	A17H	A15F
Disk Storage	6 billion bytes	3 gigabytes	3 gigabytes	6 gigabytes	2 gigabytes	15 gigabytes (4.3 owned by MDE)	21 billion bytes
CPU Capacity Utilized	40-50%	85-90%	85-90%	45-50%	90%	50%	60%
Data Entry Media	Paper Diskette Phonelines	Paper Phonelines	Paper Diskette Phonelines	Paper Diskette Phonelines	Paper Diskette Phonelines Magnetic Tape	Phonelines	Paper Phonelines
Terminals/ Microcomputer Accessing Mainframe	116	45	48	14	22	500	568
Dedicated Leased Lines	8	3	3	5	8	29	11

* shared computing facility

Exhibit 4

9. Opportunities for ESV Region Combination

Computing support and service are two distinct aspects of ESV Region operations. Computing support describes the maintenance and management of the primary computing processor and peripherals. The responsibilities typically associated with computing support include computing capacity and response time, technical facility management, scheduling of computing priorities, data and file archiving and protection and software maintenance. The responsibilities typically associated with service include training, conversion and assistance to users, development of user procedures, and technical user services.

Regions I and IV manage a joint venture computing facility, yet retain separate service center functions to support the unique needs of their members. This relationship is an effective model for potential combination of computing support among other ESV Regions.

Districts have strong support for the location and importance of service. However, the computing support aspect of ESV Regions is not a significant issue as long as performance and response are acceptable. In fact, many districts will seek greater access and performance in the future as the result of support for management systems such as ESV-SSS and other applications. At the present time, telecommunications and daytime capacity are constraints on significant expansion of on-line services among most non-metro Regions.

The opportunities to combine computing support should be based on several circumstances and factors:

- The two metro ESV Regions operate different regional software and serve members with distinct needs and preferences. There are substantial practical limitations to combining their computing support because of the logistics of supporting two distinct software systems and the current technical capacity limitations in the existing hardware systems.

- The service and computing support needs of metro and non-metro districts are very different. Non-metro district needs are comparable to small and intermediate size district needs. Therefore, it is desirable for ESV Regions to have some focus in service to districts with similar needs.

- Regions I and IV have invested and planned for their joint computing support. These Regions serve districts with similar characteristics and needs. Therefore, the opportunity for further computing center consolidation for these Regions is a longer term issue that extends beyond a five year planning horizon. Regions I and IV form a western tier of service to districts most distant from the metro area. The remaining useful lives of the computing centers supporting Regions II, III, and V are approximately 5 years. The timing and similarity of current computing support systems presents a 5 year planning opportunity to combine computing support with the objective of cost reduction and greater operational effectiveness. Regions II, III, and V form a central tier of districts that have a center location in St. Cloud. Telecommunications costs and current limitations are an important issue for any combination of computing support.

- Any opportunities for combining computing support must be considered within a five to seven year timeframe. Each existing computing center has adequate capacity to meet current needs, and is in the process of benefiting from computing investments or amortizing long-term lease obligations.

The following chart indicates the effects of combined operations and budgets for Regions II, III, and V, Regions I and IV, Region IV, and Region VII.

			Operations					Computer		
Region	Total budget	State subsidy	Budget	Budget %	Staff	Districts	Students	Model	Book value	Telecomm. budget
II	$ 1,258,917	$ 357,330	$ 434,915	34.5%	18	34	53,614	A10FX	$ 620,606	$ 69,240
III	1,210,658	430,987	512,157	42.3	16	71	97,642	A10DX	621,401	27,845
V	1,120,280	470,375	462,835	41.3	18	98	99,604	A10DX	591,838	39,210
	3,589,855	1,258,692	1,409,907		52	203	250,860		1,833,845	136,295
I	1,184,968	412,480	506,500	42.7	14	91	62,914	A12E	810,000	35,549
IV	909,738	400,075	754,016	82.9	14	87	49,430	N/A	75,950	86,425
	2,094,706	812,555	1,260,516		28	178	112,344		885,950	121,974
VI	3,529,565 (1)	394,305	1,883,415	53.4	42 (2)	6	117,104	A17H	5,827,809	55,556
VII	6,293,039	588,850	2,814,000	44.7	82	49	249,304	A15F	2,175,992	88,103
	$15,507,165	$3,054,402	$7,367,838		204	436	729,612		$10,723,596	$401,928

(1) Does not include MDE computer services ($388,000) and ESV-IS maintenance ($356,000)
(2) Includes MDE support and ESV-IS maintenance personnel

Note: 1990 budget data

This information shows that combined computing support for Regions II, III and V would result in the largest number of districts served, with Regions I and IV being second largest. The total number of students served would be comparable to Region VII. This combination would obviously require significant processing power and telecommunications capacity, but would not exceed the scale of operations that exist among other ESV Regions.

In order to make general comparisons of costs for a combined facility, certain assumptions have been made:

- Twenty-four hour operations would be required.
- Regional service centers would remain in Duluth, St. Cloud and Mankato.
- One version of ESV Region software would be supported for all service centers, requiring some initial modifications as part of the consolidation effort.
- Computing capacity of an A12E Burroughs mainframe would be required to provide adequate processing.
- Certain industry standards for operating and staffing costs are applicable.
- At the end of their useful lives, the existing computing equipment at the ESV Regions will have nominal salvage value. However, some of that equipment (e.g. printers, disk drives) could still be used in the new configuration.

By comparing 1990 costs and operations, certain opportunities for savings exist, specifically:

- Reduction in computing equipment lease costs.
- Reduction of redundancy in computing support staff.
- Elimination of redundancy in facility operating expenses.
- Offset of cost savings by increased telecommunications costs, specifically in connection of the two remote service centers to the computing facility.

These three categories of cost reductions have been quantified using industry information and certain assumptions.

Computing Equipment

In a combined computing facility, the Unisys mainframes located at each of the Regions could be replaced by one A12E mainframe with supporting equipment. At the end of the useful lives of the A10 mainframes, replacement of all three systems would require an A12B mainframe, since the A10 series has been discontinued. The A12B is an entry level computer in this series.

Disk storage needs will not be significantly affected by a combined facility, since each Region would be required to maintain disk capacity in either circumstance. Fully configured costs for A12E and A12B systems are as follows:

Comparable Equipment Purchase and Finance Costs

Model	A12E (1)		A12B (1)		3-A12B (1)	
	Purchase	Monthly Finance (2)	Purchase	Monthly Finance (2)	Purchase	Monthly Finance (2)
	$1,350,000	$30,030	$770,000	$17,128	$2,310,000	$51,385
		3,333 (3)		2,900 (3)		8,700 (3)
		$33,363		$20,028		$60,085

(1) From Datapro, includes 10 percent addition for miscellaneous equipment.
(2) Based on 60 month term, 12 percent interest rate.
(3) Monthly operating system license cost.

The cost savings from one A12E installation rather than three A12B installations would be approximately $26,000 per month or $312,000 per year, approximately 45 percent savings.

Computing Support Staff

The combination of computing centers would create a staff distinction between computing support and service support. A review of staff positions for the three Regions indicates the opportunity to distinguish positions that would remain at a combined computing facility and three regional service centers. The functions that would be resident at the computing center and services centers are described later in this section.

The staff redundancy for computing support is conservatively estimated as 3.5 FTE operator positions and 1 FTE systems analyst/programmer. The cost savings for these positions and 25 percent fringe benefits, based on salary survey data, would be approximately $155,000 annually.

Facility Operating Costs

In order to conservatively estimate potential cost savings, no facility operating cost reductions for electricity, space, utilities, insurance or other categories have been assumed. However, the installation of a new larger scale combined computing center would require first year facility improvement costs estimated at $125.00 per square foot and 1,000 square feet, or $125,000.

Telecommunications Costs

Telecommunications costs will depend on the volume of data and distance of transmission. Assuming that the combined computing center would be located in St. Cloud, the incremental costs for telecommunication would include Duluth to St. Cloud and Mankato to St. Cloud transmission lines. The telecommunications costs for Regions I and IV were approximately 6 percent of their total budgets in 1990. Using this as a basis, combined telecommunications for Regions II, III and V can be estimated at approximately $215,000 annually.

Summary of Cost Savings

The summary of cost savings from combining computing support for Regions II, III and V are as follows:

Estimated Cost Savings (Expense) From Combined Computing Facility

	First year	Subsequent years (1)
Computing equipment	$ 312,000	$ 312,000
Computing support staff	155,000	155,000
Facility improvements	(125,000)	-
Telecommunications	(215,000)	(215,000)
Total savings	$ 127,000	$ 252,000

(1) Assumes inflation will effect all costs equally, and is therefore not considered.

There are significant opportunities to reduce computing costs through combining computing facilities when the current equipment reaches the end of its useful life in four to five years. Any combined computing support should be administered like the Region I and IV facility. Regions I and IV each retain their autonomous status, but manage their computing support as a joint venture for the benefit and local control of each Region. This allows the ESV Regions to retain local district control over service and computing support.

Much of the potential for cost savings results in distinction of computing support from service. The following chart provides a clarification of some of the functions that should reside at computing centers and those that should reside at service centers.

Computing Center Responsibilities

Computer Facility Maintenance

- Monitor/schedule computing resources to achieve maximum performance and availability to users.
- Maintain accurate records on system usage and demands by each user.
- Back up/restore all stored information, including system software and utilities, application software and user data files, on a timely and periodic basis to protect against loss of information.
- Furnish a secure and controlled processing environment including physical access, disaster (fire, flood, tornado, etc.), local and remote (telecommunications) access.

Software Operations

- Update system software and utilities as provided by vendors.
- Incorporate ESV-IS software updates when supplied. Provide specific application maintenance and support as directed by governance board.
- Train Service Center employees regarding application software capabilities and interaction with Computing Center (e.g. data entry, adhoc reporting, printing).
- Provide and support data capture software and other productivity utilities as deemed necessary for users.
- Provide and support alternative application software systems as determined by districts and governance boards.

Telecommunications Operations

- Direct and maintain telecommunications capabilities with necessary entities including Service Centers, school districts, MDE, other Computing Centers, and other agencies as deemed necessary.
- Support and maintain capabilities to allow telecommunications via CRT and microcomputers in an on-line and batch environment.

Software Application Support

- Provide user district support for ESV-IS system use, data entry, processing, reconciliation, and reporting via telephone or in-person.
- Provide input/output control, system coordination and processing functions as required by specific user districts.

- Facilitate internal and external reporting requirements by districts.
- Coordinate district user activities with Computing Center.
- Support alternative application software packages as determined by governance boards.

Microcomputer Support

- Maintain expertise in relevant microcomputer applications for both the Apple and IBM-compatible environments.
- Provide user training on microcomputer software and hardware operation.
- Provide support for microcomputer products via telephone or hands-on interaction.
- Maintain a microcomputer software library that would allow districts to "check out" relevant packages for a trial period.

Technical Services

- Provide UFARS and other technical (accounting) administrative support including a Shared Accountant Program or Business Manager Function.
- Provide district training and on-going support on, at a minimum, the following topics: UFARS requirements, state mandated accounting or reporting changes, financial analysis, and external reporting requirements.

The benefits to be derived from shared computing support include potential cost reductions, access to certain computing or support capabilities not currently present, and continued focus on the support relationship and district needs.

While the opportunity to combine computing support is an intermediate term issue, discussion of benefits, requirements, and ESV Region relationships should begin within the next funding cycle to provide a minimum of three years for effective planning and implementation.

D. School District Profiles

School district profiles have been grouped by enrollment size and location category. These characteristics provide insight into the widely varying needs throughout the state. The following enrollment categories have been defined:

1. Small Districts, with 0 - 999 students K-12
2. Intermediate Size Districts, with 1,000 - 4,999 students K-12
3. Large Districts, with 5,000 or more students K-12

The following location categories have been defined:

4. Districts located in Seven County Metro Area
5. Districts with 2,000 or more students K-12 and non-metro location, called "Regional Growth Centers"
6. Districts located outside Seven County Metro Area, and not Regional Growth Centers

The information analyzed for each category includes:

a. Demographics
b. Operating Relationships
c. ESV System Use
d. Perceptions of ESV Region services
e. Data submittal procedures to ESV Region
f. Plans and potential applications for IDB
g. Long-term problems
h. Issues and problems
i. Trends in using stand-alone systems
j. District costs related to UFARS reporting
k. Unique characteristics

1. Small Districts, With 0 to 999 Students K-12

a. Demographics

Small District Distribution by ESV Region

ESV Region	Number of districts
I	75
II	17
III	39
IV	73
V	77
VI	0
VII	6
	287

These 287 districts represent 66 percent of the 436 total districts in the state. Almost 98 percent of the small districts are located outside the seven county metro area.

b. Operating Relationships

Services and Providers to Small Districts

	ESV Region	ECSU Region	Other Co-op	Vendor	Other
Accounting services	76.3%	11.1%	0.5%	7.2%	2.4%
Payroll services	76.8	8.2	0.5	5.3	4.3
Student services	21.3	5.3	4.8	19.8	18.8
Training/support of regional systems	75.4	15.0	0.5	1.4	1.9
Training/support of alternative FIN	36.7	9.2	0.5	6.3	1.9
Training/support for micro systems	30.0	17.4	2.4	17.4	3.4
Instructional management	18.4	33.8	3.4	6.3	2.4
Purchasing	6.8	58.5	7.2	12.1	3.4
Other	1.0	0.5	0.0	0.0	0.0

The ESV Regions are used primarily for the ESV-FIN and ESV-PPS applications and support. Services received through the ECSU primarily involve purchasing and instructional management services. Other Co-ops and vendors are used for purchasing and student services respectively. Many districts use their own in-district student services system.

Direct interaction with the MDE for administrative related topics is limited, unless the district has representation on a governance board or committee.

Based upon the survey responses, approximately 63 percent of the districts understand the role of the ESV Computer Council. Only 48 percent of the districts believe that they were adequately represented in the Computer Council's decision making efforts.

c. ESV System Use

Regional Systems Use Among Small District

Region	ESV FIN	ESV PPS	ESV SSS
I	28.0%	24.2%	6.8%
II	6.8	5.8	3.4
III	12.1	9.7	1.0
IV	19.8	15.9	2.4
V	22.2	21.3	0.0
VI	0.0	0.0	0.0
VII	2.4	2.4	2.4
Totals	91.3%	79.3%	16.0%

More than 91 percent of all small districts are ESV-FIN, and nearly 80 percent use ESV-PPS. ESV-SSS is not yet used extensively by small districts. Regions I, III, IV and V support most of the small districts in ESV-FIN and ESV-PPS.

d. Perceptions of ESV Region services

Most all small districts are satisfied with the overall support provided by their ESV Region. Typically, these districts rely on the Region for almost all of their technical support. Most districts, however, do believe that their needs are not complex. Several small districts have in-district systems especially for payroll and student processing.

e. Data submittal procedures to ESV Region

Method of submittal	Percent of small districts
Pre-printed forms	48.8%
Computer diskette	39.6%
Paper report produced by PC	12.1%
Magnetic Tape	1.9%
CRT direct to regional system	32.9%
File transfer from district to region	12.6%
Other	2.4%

Manual data submittal and computer diskette files are the primary form for submitting data to the ESV Regions.

While many districts send computer files over phone lines to their Region, 42 percent indicate that it is not cost effective for them even though the regional capacity exists.

f. Plans and potential applications for Integrated Data Base (IDB)

Anticipated Method to Submit IDB Data	Percent of small districts
Enter data into existing regional systems	47.3%
Implement ESV-PPS / ESV-SSS specifically	9.7%
Paper Forms	7.2%
Implement an in-district system	34.3%
Use a PC data capture system	27.1%
Other	4.8%

As can be seen, almost half of the districts are planning to use the regional applications already in place. More than one-third will implement software in their district. More than one-fourth plan on using a PC based data capture capability.

g. Long term needs

In general, many small school districts are struggling to survive. From a long term perspective, they need regional support to meet their operational requirements.

h. Issues and problems

Because of size, many school districts operate with one individual performing many functions. As a result, the small school districts rely on their ESV Region, ECSU, co-op, or vendor to provide timely, effective service.

Another issue is that the effort to provide data requested by state is not consistent with the district's perceived value of the data. Sometimes, the MDE does not adequately explain the value of the data required or the districts do not see the benefits from providing it.

i. Trends in using stand-alone systems

1) Microcomputers

Many school districts are using microcomputers for other district needs such as word processing, curriculum scheduling, instruction management, transportation, and meal services. In addition, several districts use microcomputers for input to regional systems or as an alternative to either the FIN, PPS, or SSS. Prior to the change in funding, many districts were planning on using microcomputers to comply with IDB requirements.

2) Student Services systems

Several small districts are implementing microcomputer-based student systems (e.g. Osiris or MACSchool).

3) Others

Payroll is application often processed at the district. Several microcomputer-based packages are readily available.

j. District costs related to UFARS reporting

1) Services and Costs:	Mean	Standard Deviation
Hardware/software	$ 1,374	$ 3,005
District staff	9,864	11,891
Telecommunications	236	966
Regional FIN, PPS & SSS	3,497	3,809
Other region charges	260	844
Other charges	420	1,843
	$15,651	$22,358

The most substantial distinction of costs among districts is in a hardware or software investment to support their method of UFARS reporting. Other charges include items such as membership, mailing services, forms, paper, data entry, supplies, travel, delivery service, computer replacement assessment, audit, grade scanning, media or fiche.

2) Distribution of in-district computer equipment value:

$0	13.5%
$1 to 9,999	75.4%
$10,000 to 24,999	6.8%
$25,000 to 99,999	1.0%

Most districts have a relatively small investment in computer equipment.

3) Number of in-district work stations used for UFARS reporting:

none	20.3%
1 to 2	72.0%
3 to 5	7.7%
6 or more	0.0%

Most districts have one or two microcomputers, although many do not use microcomputers in administration.

4) Percentage of time the in-district work stations are used for UFARS reporting:

0 to 25 percent	52.7%
26 to 50 percent	19.3%
51 to 75 percent	10.1%
76 to 100 percent	8.7%

District microcomputers have significant available time for use in other applications.

k. Unique Characteristics

School districts of this size generally do not have the same level of technical expertise available to them as do larger districts. This is partly because of their size, non-metro location, local economy, and access to outside technical resources. Additionally, many districts of this size are facing concerns about financial and operational viability.

2. Intermediate Size Districts, With 1000 to 4999 K-12 Students

a. Demographics

Intermediate Size District Distribution by ESV Region

Region	Number of districts
I	16
II	16
III	28
IV	14
V	19
VI	0
VII	29
	122

These 122 districts represent 28 percent of the 436 districts in the state. Almost 85 percent of the intermediate size districts are located outside the seven county metro area.

b. Operating Relationships

Services and Providers to Intermediate Size Districts

	ESV Region	ECSU Region	Other Co-op	Vendor	Other
Accounting services	83.2%	6.3%	0.0%	5.3%	3.2%
Payroll services	82.1	6.3	0.0	6.3	5.3
Student services	42.1	2.1	1.1	28.4	11.6
Training/support of regional systems	85.3	7.4	0.0	1.1	1.1
Training/support of Alternative FIN	28.4	4.2	0.0	11.6	6.3
Training/support for micro systems	41.1	5.3	0.0	22.1	6.3
Instructional management	23.2	17.9	2.1	14.7	7.4
Purchasing	21.1	33.7	9.5	11.6	10.5
Other	0.0	0.0	0.0	0.0	1.1

The ESV Regions are used primarily for the financial and payroll applications. Services received through the ECSU primarily include purchasing and instructional management programs. Other Co-ops and vendors are used for purchasing and student services.

Interaction directly with the MDE for administrative related topics is limited, unless the district has representation on a governance board or committee.

Based on the survey responses, approximately 65 percent of the districts understand the role of the ESV Computer Council. Almost 56 percent of the districts believe that they were adequately represented in the Computer Council's decision making efforts.

c. ESV System Use

Regional Systems Use Among Intermediate Size Districts

Region	ESV FIN	ESV PPS	ESV SSS
I	13.7%	12.6%	5.3%
II	14.7	12.6	9.5
III	15.8	13.7	5.3
IV	6.3	6.3	1.1
V	23.2	21.1	0.0
VI	0.0	0.0	0.0
VII	17.9	17.9	17.9
Totals	91.6%	84.2%	39.1%

More than 91 percent of intermediate size districts use ESV-FIN, and more than 84 percent use ESV-PPS. ESV-SSS is used by more than 39 percent of these districts. All Regions except Region VI support the board distribution of intermediate size districts.

d. Perceptions of ESV Region services

In general, these districts believe that they have adequate Region services available. Many districts are using in-district student services systems. Also, the medium sized districts desire software flexibility to support their changing needs. The transaction volumes within these districts generally do not require large scale systems support. As a result, the intermediate size districts generally satisfied with their Region, but also perceive benefit from alternatives that they can control, such as in-house systems.

e. Data submittal procedures to ESV Region

Method of submittal	Percent of intermediate size districts
Pre-printed forms	45.3%
Computer diskette	25.3%
Paper report produced by PC	6.3%
Magnetic Tape	3.2%
CRT direct in to regional system	52.6%
File transfer from district to region	25.3%
Other	2.1%

While many districts send computer files over phone lines to their Region, 27 percent responded that it is not cost effective for them even though the regional capacity exists.

f. Plans and potential applications for Integrated Data Base (IDB)

Anticipated Method to Submit IDB Data	Percent of intermediate size districts
Enter data into existing regional systems	58.9%
Implement ESV-PPS / ESV-SSS specifically	6.3%
Paper Forms	3.2%
Implement an in-district system	40.0%
Utilize a PC data capture system	18.9%
Other	10.5%

The majority of the districts plan on using their existing regional applications or implementing an in-house system. Due to the size of these districts, very few plan on using paper forms for input.

g. Long term needs

Intermediate size districts have unique long-term needs. They need better support for in-district systems and less expensive methods of interfacing with their Region for telecommunications.

h. Issues and problems

Most intermediate size districts have student enrollment and staff to support an in-district system. However, it may often be less expensive to use a regional system. The decision will depend upon the features and functions available in the regional software and the telecommunication costs to access the data as required.

i. Trends in using stand-alone systems

1) Microcomputers

Most districts are using microcomputers for other district needs such as word processing, curriculum scheduling, instruction management, transportation, and meal services. In addition, several districts use microcomputers for input to regional systems or as an alternative to either the FIN, PPS, or SSS. Nearly 19 percent of these districts plan on using microcomputers to comply with IDB requirements.

2) Student Services systems

Many districts are implementing or planning to implement microcomputer-based student systems (e.g. Osiris or MACSchool).

3) Others

Payroll is another application often processed in-district. Several microcomputer-based packages are readily available in the marketplace.

One district (Austin) has purchased an A4 and is implementing the ESV-FIN application internally. While this is defined as a stand-alone system, the Region can easily provide support and training without additional investment.

j. District costs related to UFARS reporting

1) Services and costs:

	Mean	Standard Deviation
Hardware/software	$ 5,161	$ 13,926
District staff	32,954	39,653
Telecommunications	844	1,471
Regional FIN, PPS & SSS	20,563	24,070
Other region charges	839	3,976
Other charges	1,529	5,481
	$61,890	$88,577

There is a substantial distinction of costs among districts in hardware and software to support UFARS reporting. Other charges include items such as membership, mailing services, forms, paper, data entry, supplies, travel, delivery service, computer replacement assessment, audit, grade scanning, media or fiche.

2) Distribution of in-district computer equipment value:

$0	9.5%
$1 to 9,999	47.4%
$10,000 to 24,999	24.2%
$25,000 to 99,999	13.7%

Many districts have a significant investment in computing equipment.

3) Number of in-district work stations used for UFARS reporting:

none	13.7%
1 to 2	53.7%
3 to 5	21.1%
6 or more	10.5%

There is a wide range in the number of in-district work stations used for UFARS reporting.

4) Percentage of time the in-district work stations are used for UFARS reporting:

0 to 25 percent	38.9%
26 to 50 percent	23.2%
51 to 75 percent	18.9%
76 to 100 percent	14.7%

Many districts use in-district work stations predominantly for UFARS reporting.

k. Unique Characteristics

The intermediate size districts as a group have several aspects that make them unique. These districts have the need and financial capacity to support administrative systems that are more functional and useful for district management than might be practical for small districts. At the same time, they don't need a highly complex system or the costs that could be associated with large districts.

This group includes the majority of districts that have or will seek in-district administrative computer systems.

3. Large Districts, With 5000 or more Students K-12

a. Demographics

Large District Distribution by ESV Region

Region	School districts
I	0
II	1
III	3
IV	0
V	2
VI	6
VII	14
	26

These 26 districts represent 6 percent of the 436 districts in the state. Only 27 percent of the large sized districts are located outside of the seven county metro area.

b. Operating Relationships

Services and Providers to Large Districts

	ESV Region	ECSU Region	Other Co-op	Vendor	Other
Accounting Services	86.4%	0.0%	0.0%	4.5%	13.6%
Payroll Services	81.8	0.0	0.0	9.1	18.2
Student Services	68.2	0.0	0.0	18.2	9.1
Training/support of regional systems	90.9	0.0	0.0	4.5	4.5
Training/support of Alternative FIN	31.8	0.0	0.0	9.1	4.5
Training/support for micro systems	63.6	0.0	0.0	27.3	13.6
Instructional Management	36.4	0.0	0.0	22.7	18.2
Purchasing	40.9	4.5	0.0	4.5	22.7
Other	0.0	0.0	0.0	0.0	4.5

The ESV Regions are used for nearly all regional services. Other Co-ops are not used at all while vendors are used for microcomputer support and instructional management.

Interaction directly with the MDE for administrative related topics is limited, unless the district has representation on governance board or committee. Due to proximity, and dize, however, these districts generally have more contact with the MDE than other districts.

Based on the survey responses, approximately 59 percent of the districts understand the role of the ESV Computer Council. Almost 50 percent of the districts believe they were adequately represented in the Computer Council's decision making efforts.

c. ESV System Use

Regional Systems Use Among Large Districts

Region	ESV FIN	ESV PPS	ESV SSS
I	4.5%	4.5%	4.5%
II	4.5	4.5	4.5
III	9.1	4.5	0.0
IV	0.0	0.0	0.0
V	4.5	0.0	0.0
VI	18.2	22.7	18.2
VII	45.5	45.5	40.9
Totals	86.3%	81.7%	68.1%

More than 86 percent of large districts use ESV-FIN, and nearly 82 percent use ESV-PPS. A relatively large percent of large districts, more than 68 percent, use ESV-SSS. Approximately two-thirds of all large district regional support is provided by the metro area Regions.

d. Perceptions of ESV Region services

Generally, these districts support their ESV Region, because of the alternate costs to build and support in-district systems. However, large districts have systems requirements that are more complex and demanding than those required by smaller districts. Regional compromise is a concern among large districts where Regions currently serve a wide range of district types.

e. Data submittal procedures to ESV Region

Method of submittal	Percent of large districts
Pre-printed forms	13.6%
Computer diskette	13.6%
Paper report produced by PC	4.5%
Magnetic tape	18.2%
CRT direct in to regional system	77.3%
File transfer from district to region	31.8%
Other	4.5%

Eighty six percent of the districts send computer files over phone lines or are on-line to their Region, while only 5 percent responded that it is not cost effective for them even though the regional capacity exists.

f. Plans and potential applications for Integrated Data Base (IDB)

Anticipated Method to Submit IDB Data	Percent of large Districts
Enter data into existing regional systems	68.2%
Implement ESV-PPS / ESV-SSS specifically	4.5%
Paper Forms	4.5%
Implement an in-district system	27.3%
Utilize a PC data capture system	9.1%
Other	4.5%

Almost all large districts plan on using their existing regional applications or bringing a system into the district to reporting meet IDB requirements.

While some districts are proceeding with their IDB implementation plans, many have taken the position of not acting until they are required. To some extent, this depends on ESV Region affiliation. Some Regions have continued to move forward on the IDB implementation and while others have not.

g. Long term needs

In general, these large school districts have technical resources available either internally or externally. Most districts realize that the Regions provide a significant and cost effective data processing service. However, they also believe that the Regions are not always flexible enough to provide them with their special needs. From a long term perspective, they need plans for data requirements and adoptive systems available for either regional or in-district operation.

h. Issues and problems

Large districts face different issues than the small or intermediate size districts. Specifically, problems such as drug rehabilitation, gangs, and homeless students and open enrollment are issues that require integrated systems support to manage.

i. Trends in using stand-alone systems

1) Microcomputers

Most school districts are using microcomputers for other district needs such as word processing, curriculum scheduling, instruction management, transportation, and meal services. The large school districts, however, do not generally rely on microcomputers to perform their finance, payroll or student processing. Only 19 percent of districts plan on using microcomputers to comply with IDB requirements.

2) IDB Implementation

Over 27 percent of the districts indicate they will use an in-district system for the IDB. Also, 9 percent of the districts are planning to use a PC data capture system.

j. District costs related to UFARS reporting

1) Services and costs:

	Mean	Standard Deviation
Hardware/software	$ 23,618	$ 36,931
District staff	115,407	148,974
Telecommunications	2,301	3,434
Regional FIN, PPS & SSS	182,680	196,304
Other region charges	9,091	18,057
Other charges	5,395	21,261
	$338,492	$424,961

Large districts have generally consistent costs for administrative services. Other charges include items such as membership, mailing services, forms, paper, data entry, supplies, travel, delivery service, computer replacement assessment, audit, grade scanning, media or fiche.

2) Distribution of in-district computer equipment value:

$0	0.0%
$1 to 9,999	18.2%
$10,000 to 24,999	27.3%
$25,000 to 99,999	31.8%
$100,000+	18.2%

Large districts have significant investments in administrative computer equipment.

3) Number of in-district work stations used for UFARS reporting:

none	4.5%
1 to 2	9.1%
3 to 5	36.4%
6 or more	50.0%

More than 86 percent of districts use 3 or more workstations for UFARS reporting.

4) Percentage of time the in-district work stations are devoted:

0 to 25 percent	18.2%
26 to 50 percent	18.2%
51 to 75 percent	13.6%
76 to 100 percent	36.4%

Fifty percent of large districts use their work stations more than 50 percent for UFARS reporting.

k. Unique Characteristics

The large school districts have the most complex needs, primarily due to the scale of operations requiring more administration, buildings, programs, and teachers, and logistics requirements.

4. Districts Located in the Seven County Metro Area

a. Demographics

Large District Distribution by ESV Region

Region	Number of districts
I	0
II	0
III	0
IV	0
V	1
VI	6
VII	41
	48

These 48 districts represent 11 percent of the 436 total districts in the state. All except one are served by a metro Region.

b. Operating Relationships

Services and Providers to Metro Districts

	ESV Region	ECSU Region	Other Co-op	Vendor	Other
Accounting Services	91.7%	0.0%	0.0%	2.8%	0.0%
Payroll Services	94.4	0.0	0.0	2.8	0.0
Student Services	83.3	2.8	5.6	5.6	0.0
Training/support of regional systems	94.4	0.0	0.0	2.8	0.0
Training/support of Alternative FIN	41.7	0.0	0.0	8.3	2.8
Training/support for micro systems	77.8	0.0	0.0	19.4	2.8
Instructional Management	55.6	11.1	2.8	11.1	5.6
Purchasing	52.8	2.8	5.6	11.1	5.6
Other	0.0	0.0	0.0	0.0	0.0

The ESV Regions are used for the three regional applications, but also for microcomputer support, instructional management, and purchasing. Services received through the ECSU include both instructional management and purchasing. Other Co-ops are used in a very limited manner, while vendors provide a wide range of service.

Interaction directly with the MDE for ESV related topics is limited, unless the district has representation on governance board or committee. Due to the location, however, the metro districts do have more potential for contact and interaction with the MDE.

Based upon the survey responses, approximately 63 percent of the districts understand the role of the ESV Computer Council. More than 42 percent of the districts believe that they were adequately represented in the Computer Council's decision making efforts.

c. ESV System Use

Regional Systems Use Among Metro Districts

	ESV FIN	ESV PPS	ESV SSS
All regions	94.4%	97.2%	86.1%

Metro district use of all regional systems is substantial, primarily because most are served by the Regions VI and VII.

d. Perceptions of ESV Regional services

The districts located within the seven county metro area benefit because of telecommunications access to their ESV Region. Overall these districts are satisfied with their Region and its capabilities.

e. Data submittal procedures to ESV Region

Method of submittal	Percent of metro districts
Pre-printed forms	22.2%
Computer diskette	13.9%
Paper report produced by PC	8.3%
Magnetic Tape	13.9%
CRT direct in to regional system	80.6%
File transfer from district to region	41.7%
Other	2.8%

Eighty six percent of the districts transmit files over phone lines to their Region, while only 3 percent responded that it is not cost effective for them even though the regional capacity exists.

f. Plans and potential applications for Integrated Data Base (IDB)

Anticipated Method to Submit IDB Data	Percent of metro districts
Enter data into existing regional systems	83.3%
Implement ESV-PPS / ESV-SSS specifically	5.6%
Paper Forms	5.6%
Implement an in-district system	11.1%
Utilize a PC data capture system	5.6%
Other	0.0%

A large majority of the districts plan on using their current regional applications, while only a few will be implementing an in-district system to submit IDB data.

g. Long term needs

Most of these school districts have the technical resources available to meet their administrative needs. These districts must have flexible application software that allows them to address their rapidly changing needs.

h. Issues and problems

Districts within the seven country metro area face similar yet varied problems, such as increasing enrollment, instructional effectiveness, open enrollment, drugs, and hiring/retaining teachers and administrators.

i. Trends in using stand-alone systems

1) Microcomputers

Most school districts are using microcomputers for other district needs such as word processing, curriculum scheduling, instruction management, transportation, and meal services.

2) IDB Implementation

Eleven percent of these districts said they would support IDB reporting on an in-district system, while more than 5 percent will use a and PC data capture alternative.

j. District costs related to UFARS reporting

1) Services and costs:	Mean	Standard Deviation
Hardware/software	$ 17,795	$ 33,648
District staff	92,119	125,368
Telecommunications	1,987	3,045
Regional FIN, PPS & SSS	128,308	172,674
Other Region charges	6,657	15,893
Other charges	4,549	17,789
	$251,415	$368,417

There is variation of costs incurred among districts, primarily because of district size. Other charges include items such as membership, mailing services, forms, paper, data entry, supplies, travel, delivery service, computer replacement assessment, audit, grade scanning, media or fiche.

2) Distribution of in-district computer equipment value:

$0	0.0%
$1 to $9,999	30.6%
$10,000 to $24,999	38.9%
$25,000 to $99,999	16.7%

Metro districts have a moderate to large investment in administrative computer equipment.

3) Number of in-district work stations used for UFARS reporting:

none	0.0%
1 to 2	25.0%
3 to 5	38.9%
6 or more	36.1%

Seventy-five percent of metro districts use three or more in-district work stations to support UFARS reporting.

4) Percentage of time the in-district work stations are used for UFARS reporting:

0 to 25 percent	11.1%
26 to 50 percent	25.0%
51 to 75 percent	30.6%
76 to 100 percent	27.8%

Metro districts use their work stations extensively in UFARS reporting.

k. Unique Characteristics

School districts within the metro area have the most access to technical resources. They are also among the largest districts in the state, and are likely to have the most significant impact from IDB implementation and open enrollment.

5. Districts Located in Regional Growth Centers

a. Demographics

Regional Growth Center Distribution by ESV Region

Region	Number of districts
I	6
II	9
III	11
IV	4
V	10
VI	0
VII	4
	44

These districts represent 44 municipalities (10.1 percent of total districts) that are not within the seven county metro area and have more than 2000 students K-12. They have characteristics of both metro and non-metro districts. Likewise they have needs similar to both large and small districts.

b. Operating Relationships

Services and Providers to Regional Growth Centers

	ESV Region	ECSU Region	Other CO-OP	Vendor	Other
Accounting Services	83.8%	0.0%	0.0%	0.0%	13.5%
Payroll Services	75.7	0.0	0.0	5.4	18.9
Student Services	45.9	0.0	0.0	27.0	18.9
Training/support of regional systems	91.9	2.7	0.0	0.0	5.4
Training/support of Alternative FIN	21.6	2.7	0.0	16.2	13.5
Training/support for micro systems	29.7	2.7	0.0	35.1	18.9
Instructional Management	18.9	16.2	0.0	29.7	16.2
Purchasing	16.2	43.2	2.7	13.5	18.9
Other	0.0	0.0	0.0	0.0	5.4

The ESV Regions are used primarily for accounting, payroll, and regional systems support. Services received through ECSUs includes purchasing and instructional management. Vendors are used for instructional management and student system software. In-district systems account for a significant amount of processing for these districts, particularly for payroll and student services.

Based upon the survey responses, approximately 66 percent of the districts understand the role of the ESV Computer Council. Sixty percent of the districts believe that they were adequately represented in the Computer Council's decision making efforts.

c. ESV System Use

Regional System Use

	ESV FIN	ESV PPS	ESV SSS
All regions	91.9%	70.3%	40.5%

d. Perceptions of ESV Region services

These districts desire the most alternatives for solving their needs. This is reflected in the responses regarding their satisfaction with the ESV-IS software. District needs are met for 64 percent by ESV-FIN, 51 percent by ESV-PPS, and 24 percent by ESV-SSS. In general, the districts in this category are not as satisfied with their ESV Regions as the metro and other non-metro districts.

e. Data submittal procedures to ESV Region

Method of submittal	Percent of districts
Pre-printed forms	48.6%
Computer diskette	18.9%
Paper report produced by PC	5.4%
Magnetic Tape	0.0%
CRT direct in to regional system	62.2%
File transfer from district to region	24.3%
other	2.7%

Sixty-five percent of districts transfer computer files over phone lines to their Region, while 30 percent indicate that it is not cost effective for them although the regional capacity exists.

f. Plans and potential applications for Integrated Data Base (IDB)

Anticipate Method to Submit IDB Data	Percent of districts
Enter data into existing regional systems	54.1%
Implement ESV-PPS / ESV-SSS specifically	8.1%
Paper Forms	5.4%
Implement an in-district system	40.5%
Utilize a PC data capture system	24.3%
Other	13.5%

These districts plan to use regional system or implement an in-house system to comply with IDB reporting requirements. A significant percent also anticipate implementing a PC based data capture system.

g. Long term needs

These districts need a flexible system that can be migrated to larger scale hardware platforms and have excellent software support available.

h. Issues and problems

These districts need more sophisticated data to properly manage district operations. They don't necessarily seek to bring systems in-district, but need system flexibility for management use. As with other districts, the state data requirements and funding support are concerns.

i. Trends in using stand-alone systems

1) Microcomputers

Most school districts are using microcomputers for other district needs such as word processing, curriculum scheduling, instruction management, transportation, and meal services. In addition, several districts use microcomputers for input to regional systems or as an alternative to either the FIN, PPS, or SSS. Twenty-four percent of districts plan on using microcomputers to comply with IDB requirements.

2) Student Services systems

Several districts are implementing microcomputer-based student systems (e.g. Osiris or MACSchool). Some districts are operating in-district minicomputers that have student systems available.

3) Others

Payroll is another application often processed in-district. Several microcomputer-based packages are readily available from vendors.

j. District costs related to UFARS reporting

1) Services and costs:	Mean	Standard Deviation
Hardware/software	$ 8,380	$ 16,369
District staff	39,341	49,465
Telecommunications	958	1,385
Regional FIN, PPS & SSS	33,676	32,137
Other Region charges	415	1,408
Other charges	2,104	6,579
	$88,874	$107,340

There is substantial variation among districts for several cost categories, due to the range of systems implemented by these districts. Other charges include items such as membership, mailing services, forms, paper, data entry, supplies, travel, delivery service, computer replacement assessment, audit, grade scanning, media or fiche.

2) Distribution of in-district computer equipment value:

$0	13.5%
$1 to 9,999	35.1%
$10,000 to 24,999	16.2%
$25,000 to 99,999	21.6%

These districts have either moderate or relatively high computer equipment values depending on their in-house or regional services.

3) Number of in-district work stations used:

none	24.3%
1 to 2	32.4%
3 to 5	24.3%
6 or more	18.9%

These districts are broadly distributed in their use of in-district work stations.

4) Percentage of time the in-district work stations are devoted:

0 to 25 percent	37.8%
26 to 50 percent	29.7%
51 to 75 percent	16.2%
76 to 100 percent	8.1%

Only 24 percent of these districts use their work stations more than 50 percent of the time for UFARS reporting.

k. Unique Characteristics

Districts falling into this category are not located in the metro area and have 2,000 or more students. These districts have access to technical resources and problems similar to the metro districts. Typically, these districts are located in a thriving local economy district enrollment is increasing.

6. Districts Located in the Non-Metro Areas

a. Demographics

Non-Metro Distribution by ESV Region

Region	Number of districts
I	85
II	25
III	60
IV	83
V	87
VI	0
VII	4
	344

These 344 districts represent 79 percent of the 436 total districts in the state. The data in this section does not include any district categorized as a Regional Growth Center located outside the seven county metro area and having 2000 for more students.

b. Operating Relationships

Services and Providers to Non-Metro Districts

	ESV Region	ECSU Region	Other Co-op	Vendor	Other
Accounting Services	76.5%	11.6%	0.4%	8.0%	2.4%
Payroll Services	76.9	9.2	0.4	6.4	4.4
Student Services	20.7	4.8	3.6	23.9	17.9
Training/support of regional systems	75.3	14.7	0.4	1.6	1.6
Training/support of Alternative FIN	34.7	8.8	0.4	6.8	2.0
Training/support for micro systems	30.3	15.9	2.0	17.1	3.2
Instructional Management	16.3	30.7	3.2	6.8	3.2
Purchasing	7.2	54.6	8.4	11.2	5.2
Other	0.8	0.4	0.0	0.0	0.0

The ESV Regions are used primarily for financial and payroll applications. Only 21 percent of non-metro districts use the ESV Region student systems. Services received from ECSUs involve purchasing and instructional management. Other Co-ops are used for limited purposes, while vendors are used for student systems and microcomputer training and support.

Approximately 63 percent of non-metro districts understand the role of the ESV Computer Council. Approximately 51 percent of the districts believe that they were adequately represented in the Computer Council's decision making efforts.

c. ESV System Use

Regional System Use

	ESV FIN	ESV PPS	ESV SSS
All regions	90.4%	80.1%	15.5%

d. Perceptions of ESV Region services

Generally, the non-metro districts are very positive about their ESV Region support and service, with some exceptions. Many of these districts do not use the ESV-SSS system and therefore have no opinion on its benefits.

e. Data submittal procedures to ESV Region

Methods of submittal	Percent of districts
Pre-printed forms	48.2%
Computer diskette	36.6%
Paper report produced by PC	10.8%
Magnetic Tape	2.4%
CRT direct in to regional system	33.1%
File transfer from district to region	13.1%
Other	2.4%

Only 39 percent of districts transfer computer files over phone lines to their Region, while 40 percent indicate that it is not cost effective for them although the regional capacity exists.

f. Plans and potential applications for Integrated Data Base (IDB)

Anticipate Method to Submit IDB Data	Percent of districts
Enter data into existing regional systems	47.4%
Implement ESV-PPS / ESV-SSS specifically	8.8%
Paper Forms	6.0%
Implement an in-district system	38.2%
Utilize a PC data capture system	25.9%
Other	6.4%

Most districts are planning to use a data capture system or implement an in-district system if they aren't currently using the regional systems to support the IDB requirements.

g. Long term needs

Generally speaking, non-metro school districts do not have ready access to technical resources either internally or externally. Most districts rely on the Region or a vendor to provide service.

These districts need technical assistance both in computer support and management use of administrative data.

h. Issues and problems

The biggest issue facing many non-metro districts is long-term financial efficiency and viability. Transportation, curriculum and programs typically have priority over investments in administrative capabilities, even though the administrative challenge becomes more substantial with declining enrollment.

i. Trends in using stand-alone systems

1) Microcomputers

Many school districts are using microcomputers for other district needs such as word processing, curriculum scheduling, instruction management, transportation, and meal services. In addition, several districts use microcomputers for input to regional systems or as an alternative to either the FIN, PPS, or SSS. Twenty-six percent of districts plan on using microcomputers to comply with IDB requirements.

2) Student Services systems

Several districts are implementing microcomputer-based student systems (e.g. Osiris or MACSchool). Some districts are operating in-district minicomputers that have student systems available.

3) Others

Payroll is another application often processed in-district. Several microcomputer-based packages are readily available from vendors.

j. District costs related to UFARS reporting

1) Services and costs:	Mean	Standard Deviation
Hardware/software	$ 1,463	$ 2,964
District staff	12,171	15,772
Telecommunications	299	1,032
Regional FIN, PPS & SSS	4,039	4,136
Other Region charges	349	1,150
Other charges	457	1,923
	$18,788	$26,977

There is substantial variation in costs among non-metro districts, primarily because of the wide range of applications and support relationships among these districts.

Other charges included items such as membership, mailing services, forms, paper, data entry, supplies, travel, delivery service, computer replacement assessment, audit, grade scanning, media or fiche.

2) Distribution of in-district computer equipment value:

$0	12.7%
$1 to 9,999	72.1%
$10,000 to 24,999	9.2%
$25,000 to 99,999	3.2%

Nearly 85 percent of non-metro districts have a computer equipment investment of less than $10,000.

3) Number of in-district work stations used for UFARS reporting:

none	18.7%
1 to 2	72.1%
3 to 5	8.4%
6 or more	0.4%

More than 90 percent of non-metro districts have two or fewer work stations used in UFARS reporting.

4) Percentage of time the in-district work stations are used for UFARS reporting:

0 to 25 percent	52.6%
26 to 50 percent	18.3%
51 to 75 percent	10.0%
76 to 100 percent	10.8%

UFARS reporting requires less than 50 percent of work station time for more than 70 percent of non-metro districts.

k. Unique Characteristics

Non-metro school districts comprise the largest number of districts with the fewest number of students. Generally, these districts do not have access to the technical resources required to support their administrative needs. Also, their administrative personnel perform multiple duties within the district. These circumstances require effective resources for training and support.

7. District Profile Summary

a. Number of Districts by Size

District Distribution by ESV Region and Enrollment

Region	0-999	1,000 4,999	5,000+
I	75	16	0
II	17	16	1
III	40	28	3
IV	73	14	0
V	77	19	2
VI	0	0	6
VII	6	29	14
	288	122	26

District Distribution by ESV Region and Location Category

Region	Non-Metro	Regional Growth	Metro
I	85	6	0
II	25	9	0
III	60	11	0
IV	83	4	0
V	87	10	1
VI	0	0	6
VII	4	4	41
	344	44	48

b. District costs related to UFARS reporting

District enrollment:	0 - 999	1,000 - 4,999	5,000 +
Mean	$15,651	$61,890	$338,492
Standard deviation	$22,358	$88,577	$424,961

Location category:	Out-State	Regional Growth	Metro
Mean	$18,788	$ 88,874	$251,415
Standard deviation	$26,977	$107,340	$368,417

Significant variation in expenditures exists among each enrollment category. Costs are generally proportional to enrollment. There is also comparability of costs based on enrollment and district category.

c. Satisfaction With of ESV Region Services

In order to analyze the distribution of opinions about ESV Region services and support, the district survey responses were sorted into district enrollment and location categories.

Agreement/Strong Agreement by District Enrollment and Category	District Enrollment			Location Category		
	0 - 999	1,000 - 4,999	5,000	Metro	Regional Growth Centers	Non-Metro
ESV Region provides cost effective data processing service	80.1%	82.1%	90.9%	86.1%	83.7%	80.5%
Region software is effective and support needs	83.5%	78.9%	72.7%	83.3%	78.3%	81.7%
ESV - FIN meets District needs	89.8%	76.8%	63.6%	86.2%	64.8%	86.9%
ESV - PPS meets District needs	83.0%	73.6%	40.9%	72.2%	51.3%	81.7%
ESV - SSS meets District needs	25.1%	32.6%	50.0%	71.2%	24.3%	23.5%
Region staff are a broad resource for management info.	84.5%	82.1%	77.2%	88.9%	78.3%	83.3%
Region range of services meets our changing needs	86.4%	82.1%	68.1%	83.3%	75.7%	84.9%
Region quality of service is satisfactory	90.3%	84.2%	81.8%	80.5%	89.2%	88.8%
ESV Region has fostered inter-district cooperation	45.6%	47.3%	68.1%	75.0%	40.5%	44.7%
ESV Region provides adequate opportunity to participate in developing policies	66.1%	71.5%	72.7%	80.6%	70.2%	63.1%
Administrative structure of Region meets district needs	77.7%	81.0%	77.2%	83.3%	81.1%	77.7%
Benefits of ESV Region participation outweigh short-comings	85.9%	81.0%	81.8%	88.9%	83.7%	83.6%

The extent of agreement among districts provides valuable insight into ESV Region support and services. Districts believe that ESV Regions provide cost effective data processing, although this belief is less strong among smaller and non-metro districts. The software supported by Regions is least strongly supported by intermediate size districts, due in part to their management needs.

Support for the three regional software systems is mixed. Large districts and regional growth centers are least satisfied with ESV-FIN and ESV-PPS, although there is strong overall support. There is not strong agreement that ESV-SSS meets district needs, due in large part to its recent introduction in most Regions and the lack of familiarity or opinion among many districts. Support is strongest among large and metro districts where many districts have implemented this system. Satisfaction with ESV Region staff, services, and quality of services is broadly based, although large districts and regional growth centers may have concerns about the ability of Regions to meet changing needs.

Smaller, non-metro, and regional growth centers indicate a relatively low level of agreement that the ESV Regions have fostered inter-district cooperation. There is broad agreement that the ESV Regions provide adequate opportunity to participate in developing policies. In this regard, districts also believe that the structure of their ESV Region is appropriate to meet district needs. Overall, there is consistent agreement among district categories that the benefits of ESV Region participation outweight the shortcomings.

E. ECSU Relationships With ESV Computing Regions

Educational Service Cooperative Units ("ECSUs") were created by the state legislature to perform educational planning on a regional basis, and to assist in meeting educational needs of member districts. ECSUs evolved in 1976 from earlier pilot efforts and initiatives. ECSU boundaries were established to coincide with Minnesota planning regions.

ECSUs are authorized to provide a broad range of service on a regional basis. Although there is no requirement for coordination and cooperation with ESV Computing Regions, many ECSUs have developed organizational or working relationships to more effectively serve their membership. The relationship between ECSUs and ESV Computing Regions is included in the scope of this analysis because of the potentially overlapping authority and operations that exist among them.

There are currently eleven ECSU regions housed in nine offices. Each of the nine offices is administered by an ECSU Director. Each ECSU is governed by a Board of Directors, authorized at six to fifteen members. Board membership must be current members of school boards of participating members districts. These Board members are selected by a vote of current school board members of participating school districts. Up to three ex-officio superintendent members may be appointed to provide non-voting input. Certain ECSUs have alternate board membership rules.

In order to obtain an understanding of the range of ECSU relationships and regional service issues, the following efforts were undertaken:

- Personal interview with the Chairman of the ECSU Directors Group to obtain an overview of ECSU history, issues, and range of relationships.
- Review of authorizing legislative and other background information.
- A structured telephone interview or, where practical, a personal interview with each ECSU Director to discuss issues and ESV Regional Computing Center relationships.

An overview of ECSU operating statistics is necessary to understand the differences in programs, staffing and budget support for the nine ECSU locations. Statistical information was taken from the 1988-1989 Minnesota ECSU Information Handbook.

1. ECSU Region Characteristics

ECSU Regions/Location		Square Miles	1980 population	K-12 Districts Number	K-12 Districts Students	Associate Membership
1&2	N. West, Thief River Falls	14,853	160,365	53*	32,198	2
3	N.East, Virginia	17,950	343,281	30	46,908	9
4	W.Central, Fergus Falls	8,044	204,513	41	33,604	8
5	ECSU-5, Staples	5,598	131,266	27*	26,382	2
6&8	SW/WC, Marshall	12,011	304,276	105*	54,824	7
7	Central, St. Cloud	6,215	321,997	43*	70,987	30
9	S. Central, North Mankato	5,064	221,980	53*	46,059	45
10	S. East, Rochester	6,735	405,765	45	57,480	6
11	Metro, Arden Hills	3,000	2,231,345+	57*	362,055	18

*Includes member school districts which are outside the ECSU region.

Several ECSUs serve very large geographic areas. With the exception of ECSU 11, each ECSU serves a K-12 population between 26,382 to 70,987 students. The number of K-12 member districts ranges from 27 to 105. The extremes include the ECSU 6&8 that serves a large number of small districts and several intermediate size districts to ECSU 11 that serves the Twin Cities districts primarily including intermediate size and large districts.

The group of typical services provided by ECSUs include:

1. Administrative Services - human resource technical, health and safety technical, liaison, insurance and Title II

2. Curriculum and Instruction - academic programs, curriculum development assistance, PER technical and special education services

3. Human Resource Development - staff development programs, special student development programs, teacher assistance team, educational effectiveness programs and leadership training.

Each ECSU provides other unique programs and services. These services include:

Regions 1 & 2 - Northwest ECSU (Thief River Falls)

Adult basic education, printing services, common legal opinions, and educational coalition to serve as facilitator for negotiating groups and cooperative purchasing.

Region 3 - Northeast ECSU (Virginia)

Miscellaneous assistance as requested by members, and cooperative purchasing.

Region 4 - West Central (Fergus Falls)

Orientation and mobility specialist, handicapped and special education programs, early childhood programs, Artist-in-Residence, and cooperative purchasing.

Region 5 - ECSU 5 (Staples)

Academic fairs and competitions, Principal's Fellowship, Regional Global Education Resource Center, volunteer and grant writing programs.

Regions 6 & 8 - Southwest and West Central (Marshall)

Handicapped and special education programs, at-risk tracking, multi-county maternity and child health program, mobile technology-resource center, and cooperative purchasing.

Region 7 - Central (St. Cloud)

Principal Assessment program, Technology Project, parent advisors training, and mental and physical disabilities services for young children and families.

Region 9 - South Central (North Mankato)

Consultant referral and cooperative purchasing.

Region 10 - Southeast (Rochester)

Business partnership, young writers conference, equipment item bank, curriculum content seminars, and cooperative purchasing.

Region 11 - Metro (Arden Hills)

Metro Teacher Center Building Board, Gifted Center, Trainer's Network, Mentor Connection, instructional improvement programs, annual studies and profiles of districts, calendar and clearing house services.

2. ECSU Estimated Budgets - 1988-1989

ECSU Regions	State	Local	Federal & Other	Purchasing	Total
1&2 N. West	$ 235,996	$ 473,151	$ 537,022	$1,447,476	$ 2,693,645
3 N.East	541,800	400,000	138,290	700,000	1,780,090
4 W. Central	596,187	1,224,064	401,658	1,065,000	3,286,909
5 ECSU - 5	279,975	60,389	473,286	-	773,650
6&8 SW/WC	1,500,000	2,300,000	1,600,000	3,700,000	9,100,000
7 Central	196,045	49,299	385,894	-	631,238
9 S. Central	254,550	479,500	436,990	708,580	1,879,620
10 S. East	217,664	471,593	286,669	1,047,200	2,023,126
11 Metro	333,604	626,906	479,506	-	1,440,016
Totals	$4,115,821	$6,084,902	$4,739,315	$8,668,256	$23,608,294

Note: Cooperative purchasing is the member district total dollars spent through this service.

The range of ECSU programs are determined by member needs and the availability of service from other regional and local agencies. The combination of funding sources include a member base fee, funding for certain programs from state and federal and non-profit sources, and cooperative purchasing volume.

3. ECSU FTE Staffing - 1988-1989

ECSU Regions	Admin.	Program	Special Ed.	Media	Support	Total
1&2 N. West	1	5.4	5.0	1.2	6.0	18.6
3 N. East	1	4.0	9.5	1.0	3.5	19.0
4 W. Central	1	30.0	14.0	2.8	13.3	61.1
5 ECSU - 5	1	7.0	1.6	-	4.0	13.6
6&8 SW/WC	11	15.0	42.8	17.0	31.3	117.1
7 Central	1	5.5	3.5	-	4.0	14.0
9 S. Central	1	7.1	6.3	3.0	5.5	22.9
10 S. East	1	10.0	-	1.0	8.5	20.5
11 Metro	3	15.4	-	-	8.8	27.2
Totals	21	99.4	82.7	26.0	84.9	314.0

Note: Region 6 & 8 - SW/WC ECSU includes ESV Computing Region IV staff

The allocation of staff among ECSUs varies with the mix of services provided. ECSU Region 6 & 8 includes combined administration of many services and programs provided by ESV Computing Regions and special service districts in other ECSU regions.

Like the Directors of ESV Regional Computing Centers, ECSU Directors are committed to a mission of service to their membership. Although these two groups of regional education organizations may have different board membership rules and procedures, both groups are governed through extensive membership involvement.

4. Common Issues

The range of ECSU involvements and services vary in extremes from organizational administration of ESV Regional Computing Center functions to strictly education and administrative program development. In spite of this diversity, ECSUs experience or perceive many common issues with regard to regional structural and operating relationships.

1. The lack of a clearly defined charter provides an opportunity for service redundancy or competition that may influence effectiveness and efficiency. Several ECSUs have resolved this issue through consolidation or service agreements with ESV Computing Regions. However, several ECSUs perceive a lack of coordination, primarily because of competitiveness and unclear objectives.

2. Revenue generation is a driving force for ECSUs and ESV Computing Regions. This force creates motivation, but also perpetuates certain negative aspects of competition in some regions. The desire for ECSUs and ESV Computing Regions to expand and diversify services must be financially supportable, particularly because of uncertainty in state funding support. However, duplication of more financially lucrative services among ESV Computing Regions and ECSUs is an undesireable aspect of competition.

3. ESV Computing Regions have a primary function to support administrative data processing. ECSUs have a primary function to perform educational planning and assist districts to meet educational needs. The potential for redundancy is the common area of these two functions. For example, insurance services, computer purchasing, administrative management training, computer technical training, and related areas are extensions of both functions.

4. The proliferation of special function and service districts, in addition to ECSUs and ESV Computing Regions, compounds the efficient delivery of service to districts. The legislative objective to provide choices for districts conflicts with the objective to most efficiently plan the broad range of regional services desired by districts. This poses more of a practical problem for ECSUs, but in a larger context includes all regional educational organizations.

   The advantages cited for organizational integration of ECSUs and ESV Computing Regions include administrative efficiency, more effective program planning and coordination, and common location for more efficient school district access. The disadvantages cited for integration include disparate operations and objectives, and minimal potential for additional administrative efficiency. The range of opinions among ECSU Directors can be attributed to unique circumstances and experiences in each region.

F. Telecommunications Network Needs

The telecommunications needs of the school districts and their ESV Regions can be viewed at from several perspectives. First, there is the need to communicate between the districts, the regional centers and the MDE in the use of the administrative systems; second, there is the need for districts to communicate between each other and with the MDE for management of educational programs; and third, there is the need for school districts to access information or provide information to other entities or agencies within the state of Minnesota.

1. MDE Administrative Systems

The survey questionnaire solicited information about the ways in which UFARS reporting was made by school districts to the ESV Regions. Forty two percent of the districts indicated they send data using direct terminal input, 18 percent indicated they transmit data via file transfer over telephone lines and 34 percent have the data in electronic format and send it to the Region on computer diskettes. A total of 47 percent of districts currently send files via telecommunication lines. It is important to note that a district can submit data in more than one format.

a. On-Line Systems

The state supported student services system is an on-line system that is best utilized in an interactive mode over telecommunication lines. In the past, this system was not extensively used by the districts. There is one region, ESV Region V, that does not have districts using it as of September 1989. However, recently more districts have begun to use the system and this has increased the need for direct access to regional mainframe computers. This increase may be due in part to the data collection requirements of the IDB, many of which can be met through use of the student system. This trend indicates a growing need for of a telecommunications network to support this type of access.

b. Printing

There is a trend for districts to print some reports locally rather than wait for delivery of the report from the regional center. The technology and hardware is available to do this, however, it is not always a cost effective because of telecommunication costs.

c. MDE Access

Some districts currently use dial-up access to the MDE computer in St. Paul in order to retrieve data from the data base maintained there. It is anticipated that such query interest and activity will increase after the Integrated Data Base is implemented.

d. Transmission Costs

The existing telecommunications lines between non-metro districts and ESV Regions can be a costly means of transmitting data. Several Regions allocate the transmission costs among the districts so that the districts farthest away from the computer center are not penalized. In other Regions, each district is responsible for transmission charges based on usage. Current telecommunications costs as a percent of budget for each ESV Region is described in Section II.C.8 of this report. School district costs for telecommunications are included in Section II.B.

e. Quality

In much of the rural areas of the state the quality of the telecommunications service is poor. In these cases, it is sometimes preferable to mail in diskettes rather than to rely on transmission lines quality.

A schematic of the existing telecommunications network connecting the ESV Regions and the MDE databases is shown in Exhibit 5. There are currently no direct telecommunication connections between the regional computing centers, with the exception of Regions I and IV, who manage a combined computing resource.

2. MDE Educational Systems

In order to evaluate the impact that education is having on students, some measure of delivery of instruction is needed. As the means for evaluating learner outcomes are developed, they will be combined with financial information and statistical information on programs offered, class size, and other characteristics to help determine potential improvements to educational service delivery.

a. Integrated Data Base

The IDB will provide a link between the financial and statistical data, and educational instruction effectiveness. The common data collected will be available to legislators and state department personnel as well as to the individual school districts. In order to be effectively used, the data will need to be easily accessible over telecommunication lines. Whether the summary data is stored at each Region or on the state's database, a cost effective network will be needed to provide timely and cost effective retrieval of the data.

b. Video Instruction

A number of school districts in the state are participating in two-way video instructional programs. During some school district interviews, interest was expressed for the expansion of this capability. If two-way video was available and cost effective, it would provide great potential for sharing instructional programs between districts.

c. MDE Communications

Written communications between MDE and the school districts are currently based on mail service. Many memoranda are sent to all school districts. The ability to use electronic mail for much of this communication would be facilitated by a improved network. This would improve delivery time and result in a savings in mailing and paper cost.

Electronic bulletin boards are another potential means of communicating between districts and MDE when a cost efficient telecommunication network is in place.

3. Non-MDE Systems

The survey questionnaire asked school districts their opinion on utilization of the proposed intra-state telecommunications network for sending and receiving data to or from other agencies. Although over 40 percent of districts responding had no opinion, over 30 percent agreed it would be useful to have, and would save time for their staff.

ESV REGIONAL COMPUTING CENTER
EXISTING TELECOMMUNICATIONS NETWORK

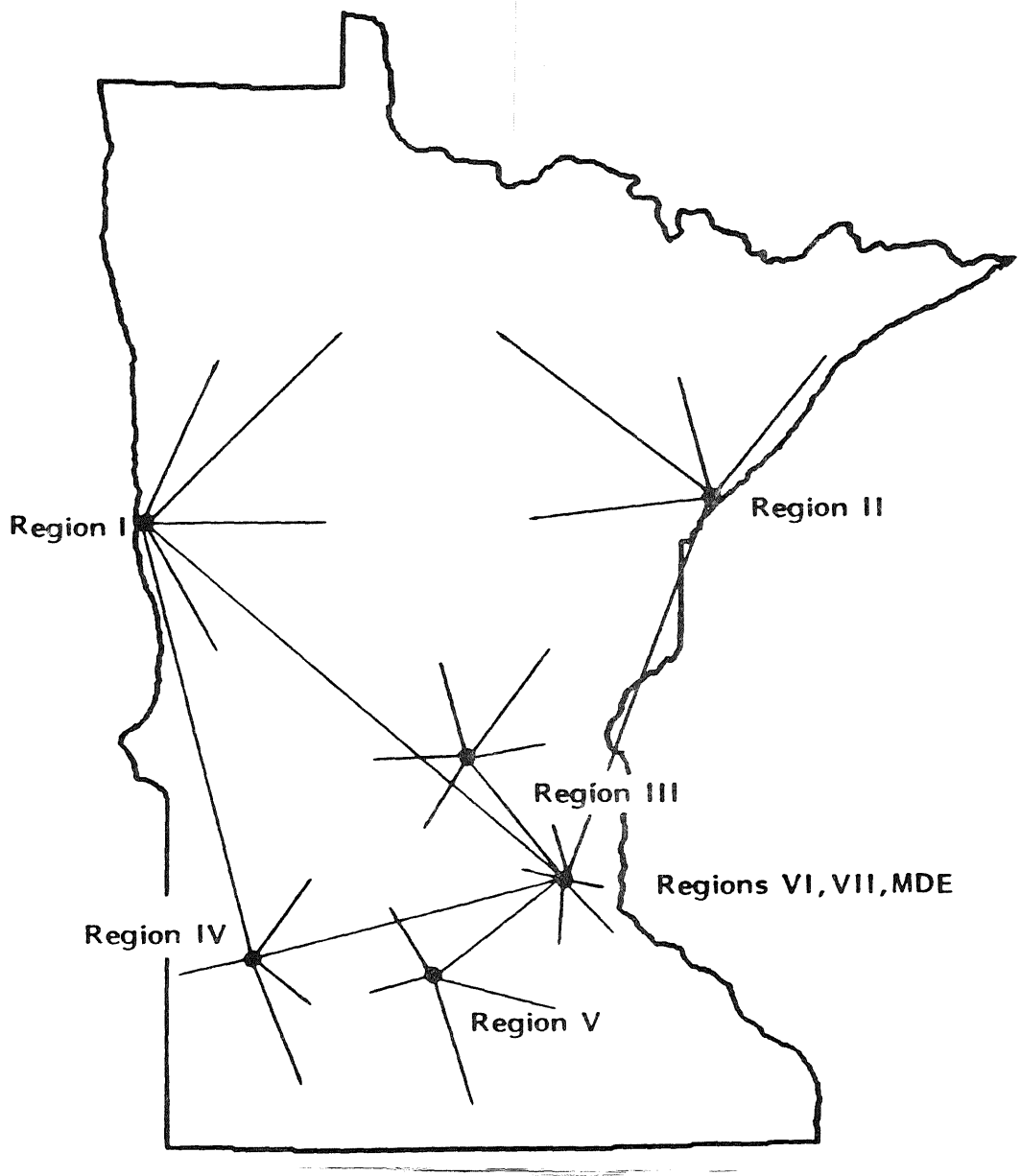


EXHIBIT 5

The type of information currently being provided or obtained from other agencies is summarized as follows:

a. Verification of information

- Health and Human Services
- Minnesota Teachers Retirement Association
- Public Employees Retirement Association

b. Retrieval of information

- Association of Metro School Districts
- Education District
- High School League
- Counties
- Minnesota School Board Association

c. Compliance reporting

- MDE and Federal Department of Education
- Public Safety and Highway Patrol
- MN Department of Jobs and Training and Economic Security
- Federal Head Start
- Private Industry Council

Districts believe that the ability to access data from other agencies through the telecommunications network would provide benefits, but is not a priority at this time. The metro area Regions routinely obtain data files from other agencies or tape, and this approach is currently cost effective.

4. Plans for a State-Wide Telecommunications Network - STARS

In the interviews, many districts expressed a need for the planned State-wide Telecommunications Access and Routing System (STARS) that would provide less expensive and improved telecommunications access. Options for the STARS network are being developed by the InterTechnologies Group in the Department of Administration and will be presented at the next Legislative session.

The network that will be developed by STARS will be a conduit for transmission of information. The goal is to provide this capability at a lower cost and with improved service. However, the STARS project will not address the issue of how to utilize this network at a functional level. Actual use will continue to be determined by the needs of the organizational units desiring specific information. These needs are being identified in current development efforts.

Whether STARS will encompass communications in video as well as voice and data is not known at this time. The extent of the network infrastructure is also undefined at this time. The needs for telecommunications throughout the state, including those of education, are being considered in recommendations for this infrastructure.

The extent to which school districts and ESV Regions will benefit from STARS is still unclear, but it is anticipated that STARS will provide reduced costs for telecommunications and improved quality of transmission in those geographic areas where problems exist. Achievement of these goals will support growing use of electronic transmission of data, and increase the potential for sharing computing support among ESV Regions.

SECTION III

EVALUATION OF OVERALL FINDINGS, ALTERNATIVES AND RECOMMENDATIONS

The data collection for this study provided a wealth of information including facts, statistics and opinions. Because of the diversity of participants in ESV Computing Region support, there will always be differing perceptions and priorities for many aspects of these functions. The challenge for administrators, providers and users of administrative computing support is to understand the diversity that exists, develop administrative objectives that accommodate this diversity, and manage the overall system toward these objectives.

In order to clarify the findings of this study and expand on them, the various sources of background information were interpreted and integrated. These efforts have resulted in a set of overall findings and background support in several topic areas. Alternatives and recommendations have been developed from the identification of findings. These alternatives and recommendations are based on the unique characteristics, missions, and needs of the organizations included in the scope of this evaluation. These recommendations reflect circumstances and information available at the date of this report. Developments subsequent to this report may alter the validity of these recommendations.

Findings, alternatives, and recommendations have been categorized into the following topics for discussion purposes:

Summary of Category Topics

1. Computing Support Needs
2. Regional Services and Support Functions
3. Small District Reliance on ESV Computing Regions
4. Regional Effectiveness and Efficiency
5. District Satisfaction With ESV Region Computing Services
6. District Computing Options and Efficiency
7. Support and Approaches for IDB Implementation
8. ESV Computing Region and ECSU Relationships
9. Microcomputer Support by ESV Computing Regions
10. State Subsidy of ESV Computing Regions
11. Role and Function of the ESV Computer Council
12. Telecommunications and Computing Regions
13. Trends in On-Line Processing Needs
14. Data Standardization
15. Student Information System Implementation
16. Long-Range Planning
17. MDE Organizational Support
18. ESV Organizational Support
19. Other Agency Data Access Needs
20. District Computing Support Transition

1. COMPUTING SUPPORT NEEDS

FINDINGS

There is growing diversity of administrative computing support needs among small, intermediate, and large school districts.

Computing support needs are becoming more diverse as the result of growing administrative sophistication among many intermediate and large districts, and less sophisticated needs among smaller districts. The level of sophistication is influenced by management orientation, scale of operations, and the costs and practical benefits from computer support.

The growing diversity will make the challenge more difficult for ESV Computing Regions that serve a wide range of district needs. The potential loss of focus by ESV Regions is an issue that influences district satisfaction with ESV Region support.

A single state supported software system cannot meet the range of needs that exist among districts.

District needs and the computing extremes among districts limit the ability to maintain a single set of administrative support software that will be acceptable to all users. The functional capabilities sought by more sophisticated districts will require continued upgrades and modifications that are not needed by districts with relatively stable computing support needs.

Many other districts have implemented or contemplate alternative stand-alone systems for finance, payroll, and student services. The reason most districts depart from ESV Region support is the need for more functional and adaptive software capabilities. Most of these districts can be characterized as growing intermediate size and located outside the metro area. Capabilities and control, not costs, are the reasons most frequently identified for implementing district based systems. In fact, many districts indicate that the cost of in-district computing is substantially greater than they anticipated prior to implementation. Unfortunately, these districts are also important in supporting the economics of administrative computing support for most non-metro ESV Regions.

No single form of regional structure or organization is capable of meeting all district needs.

No single form for delivering regional computing support can be effective for all districts because the computing and service needs of districts are so diverse. The current arrangement provides districts with options to procure the regional support they desire, or perform all computing internally. Districts are generally satisfied with the ESV Region structure that serves them. However, the options available to districts make longer term planning for regional service difficult.

Actions by districts to meet their needs complicates achieving certain state-wide standards for uniformity and standardization of data.

UFARS implementation provided many benefits to financial management and data consistency. The procedural and categorical nature of UFARS provided structure for broad based district level actions. However, as districts seek to implement in-district applications for finance, payroll, and student systems it becomes more difficult to assure the reliability, comparability of data reported to the MDE.

ALTERNATIVES

The following alternatives are courses of action that could be taken to address the identified findings:

- MDE and the ESV Computer Council could select and assure support of preferred alternatives for microcomputer and minicomputer solutions for FIN, PPS, and SSS applications.

- MDE and the ESV Computer Council could support at least one ESV Computing Region to support the FIN, PPS and SSS applications on alternate hardware platforms for state-wide support.

- MDE could develop a new system for FIN, PPS, and SSS that is modular, parameter driven, interactive, supports distributive options, and is required for all districts to use.

- The current circumstances could continue to allow districts to implement alternatives, and rely on the ESV Computing Regions to modify ESV-IS as desired.

- More reliance could be placed on vendors to support alternate applications.

- The ESV Computer Council could develop an on-going mechanism to evaluate regional approaches and on-going district needs.

RECOMMENDATION

MDE and the ESV Computer Council should encourage ESV Regions to select and assure support of preferred alternatives for microcomputer and minicomputer solutions for FIN, PPS, and SSS. The ESV Computer Council should also develop an on-going method to evaluate regional approaches and on-going district needs.

The FIN, PPS, and SSS systems supported by ESV Regions meet the needs for most districts, but there are unmet needs for districts that seek more adaptive microcomputer or minicomputer support. The position of MDE and the ESV Computer Council has been to allow alternate systems use by districts, but require a test of uniform reporting before accepting any alternate system. Many districts can justify the move to an alternate system, particularly with the diminishing equipment costs for in-district systems. ESV Regions should provide alternate systems support, where feasible, to accommodate the needs for more adaptive, interactive software support. The districts seeking this support are typically intermediate size districts. This will benefit MDE by assuring consistently supported standards for data uniformity and comparability. It will benefit the Regions by providing on-going revenue support and district participation. The role of the ESV Computer Council should be to evaluate and support alternate regional approaches and solicit input from districts regarding their needs for regional service or alternate system support.

2. REGIONAL SERVICE AND SUPPORT FUNCTIONS

FINDINGS

The emphasis among ESV Computing Region activities has shifted from computing support to district service.

Data processing is no longer the primary operational focus of ESV Computing Regions because of maturity of primary software and applications, and the stability of mainframe computing support. The computing requirements for regional service have not changed significantly, although the service needs have changed. The service activities of ESV Regions are more significant because districts are using financial, payroll and student data more actively in district management.

The opportunity to achieve greater economies of scale in computing support must be addressed within the overall objective of providing appropriate direct services to districts.

Regional opportunities to support district needs must be the basis for any organizational structure to provide computing support or direct services. The example provided by the jointly managed computer facility for Regions I and IV indicates the opportunity to physically consolidate data processing support, but also requires additional coordination of service functions. There are opportunities to plan for cost effective combination of computing support for several ESV Regions, specifically Regions II, III and V. The time frame for potential combination of computing support is approximately five years, based on the remaining lives of computing equipment managed by each of these Regions. Service functions performed by each of these Regions should remain, but the opportunity for achieving greater computing cost effectiveness should be further analyzed and planned for longer term district benefits.

The need for a specific mix of ESV Computing Region technical and support staff depends on regional needs, but a critical mass must exist before it is practical to provide any service.

The current regional structure provides economies of scale for most services needed by member districts, but this may not be possible as districts continue to become more sophisticated. Also, it is impractical to assume that every Region can provide every service. However, even Regions characterized by a large proportion of small districts have a wide mix of district size and sophistication. Certain multi-regional or state-wide services may be cost effective where regional support is not.

The feasibility and need for providing any service on a regional basis involves trade-offs of critical mass and proximity.

The implementation or conversion of new software applications requires on-site service that must be tailored to each district's needs. As the application matures, the need for physical proximity to provide this service diminishes. Other administrative support services, such as a shared accountant or other technical service, require proximity. The importance of computing support proximity is diminishing since the technical management of computing facilities is not a direct responsibility of districts. The current regional service and computing support structure relies predominantly on the economies of scale within Regions and does not effectively incorporate inter-district services or regional technical specialization that may offset physical proximity needs.

Region-level modifications to state supported software complicate potential consolidation of computing support.

Each Region has developed minor modifications or processing enhancements to regional software, and various levels of software versions exist among Regions. Any consolidation of computing centers should include consolidation of computing software to achieve data center efficiency. Regions have implemented procedures for data processing, district data collection and reporting in support of these modifications. Efforts to consolidate computing support must involve efforts to resolve these software and procedural differences.

ALTERNATIVES

The following alternatives are courses of action that could be undertaken to address the identified findings:

- Distinguish computing support functions from service functions and plan to consolidate non-metro computing support and software. Retain current service center locations to be administered regionally.

- Increase the number of service centers in non-metro areas, retain the same number of locations of computing support centers, and selectively consolidate computing support centers.

- Retain the current computing support and service center structure.

- Distinguish computer center functions from service center functions, and selectively consolidate two or more computing centers based on the economics of circumstances. Retain current regional service center locations for autonomous administration.

RECOMMENDATION

MDE and the ESV Computer Council should support voluntary efforts to selectively consolidate two or more computing centers and support the economic analysis of these opportunities. The current service center functions and locations should be continued, and administered on an autonomous basis.

The opportunity to plan for combined computing support for Regions II, III, and V could provide significant cost benefits to districts. This combination would create an outer tier of computing support for Regions I and IV, a central tier of computing support for Regions II, III, and V, and two metro Regions. Any combined computing support should retain autonomous service centers at existing locations, because Region based services are important to districts. The ESV Computer Council and MDE should provide technical planning support to ESV Regions that may benefit from combined computing support. The responsibilities to be assigned to computing centers should include facility management and software maintenance. Responsibilities at service centers should include software support, data input and report printing, training, and technical support to districts.

3. SMALL DISTRICT RELIANCE ON ESV COMPUTING REGIONS

FINDINGS

Small districts are becoming more reliant on ESV Computing Regions because of demographic trends and economies of scale.

- Most of Minnesota's smaller districts face declining student populations. Many must anticipate alternate operational and organizational means to sustain district viability. As this trend continues, the administrative support of the ESV Computing Regions becomes more critical, since in-house alternatives require a level of technical support that may not be cost effective or desirable. The practical options for these districts are limited by their location and economies of scale.

Small district needs for computing support extend into certain administrative assistance services that are outside the traditional computing support role of ESV Computing Regions.

As many districts decline in student enrollment, their need for administrative assistance in accounting and finance increases. For example, district pairing, inter-district programs, and district consolidations create unique needs for financial and operational reporting. The trend towards shared Superintendent services and other administrative support includes accounting and human resource services. This is an extension of the on-going support and computing services provided to small districts in finance, payroll, and student statistics, and other application areas. For many districts, ESV Computing Regions act as de-facto administrative accountants by performing most or all data computation and reporting.

Small district reliance on ESV Computing Regions is reflected in district hiring and staffing decisions.

Many small districts make staffing and hiring decisions based on the availability of procured services from ESV Computing Regions. Any change to the ESV Computing Region structure must address this aspect of district service relationships. Because of their scale of operations, smaller districts are more vulnerable to the effects of turnover in key administrative or accounting support positions. Regional support, as currently organized, provides a buffer for staff transition and development in small districts.

The difference between computing support and administrative support is becoming less distinct in many ESV Computing Regions.

Many Regions see a mission to meet the administrative support needs of member districts as well as computing support needs. This mission has implications for future roles of ESV Computing Regions. There is a need for administrative support in finance, accounting, but there is also a lack of clearly defined administrative support responsibilities.

ALTERNATIVES

The following alternatives are courses of action that could be taken to address the identified findings:

- State funding support should be provided to assist small districts with the costs of combined administration or administrative support functions.

- ESV Computing Regions could be designated as the coordinating center for the administrative support services that member districts need.

RECOMMENDATION

ESV Computing Regions, specifically the service centers should be designated the responsibility to assess administrative support needs among member districts. They should be the coordinating and support center for a broader range of administrative support services.

Shared accountant and administrative support to superintendents are two examples of services provided in non-metro Regions. The Regions are appropriately organized to provide cooperatively funded services to support district administration.

4. REGIONAL EFFECTIVENESS AND EFFICIENCY

FINDINGS

Any appropriate measure of ESV Computing Regions effectiveness and efficiency must be based on member district needs.

Districts are so diverse that performance by ESV Computing Regions must be measured relative to the service needs and performance measures of their members. This complicates performance comparisons among Regions, although performance measurement must be an issue for districts, the ESV Computer Council, and the Department of Education.

No standards exist for measurement of ESV Computing Region performance.

The budget review process has been the primary mechanism for review of ESV Region activities and plans. However, the review of budgets and plans does not fully address changing district needs, particularly where the range of needs in a Region are diverse.

There are no means to determine the appropriateness or application of funds provided for state subsidy of ESV Computing Region operations.

State support to ESV Computing Regions was initially provided to assist in UFARS implementation and development of regional support. However, the static allocation of this subsidy does not support specific funding or support objectives. As a result, uniform measurement of benefits and performance is not possible.

ALTERNATIVES

The following alternatives are courses of action that could be taken to address the identified findings:

- The ESV Computer Council could conduct an annual survey of districts to assess regional performance as part of the budget review process.
- Districts could provide performance input through ESV Computing Region assessment of district needs.
- The ESV Computer Council could develop performance standards and guidelines for regional performance measurement.

RECOMMENDATION

The ESV Computer Council should develop performance standards and guidelines for the Regions to measure their performance. These standards and guidelines should provide comparable regional data to support state funding recommendations and administrative oversight.

Each ESV Region should solicit performance input from districts annually for planning use. This information should provide a consistent basis for ESV Computer Council review of district satisfaction and needs as part of the overall budget review process. The ESV Computer Council should define the standards and guidelines to be used and reported by ESV Regions.

5. DISTRICT SATISFACTION WITH ESV COMPUTING REGION SERVICES

FINDINGS

Districts express overall satisfaction with services provided by ESV Computing Regions, as measured in cost effectiveness, timeliness, software effectiveness, and quality of staff support.

District satisfaction varies by student size of districts. Small districts have a high level of satisfaction for the basic computing and direct services they need for routine administrative activities. Most large districts have developed operating relationships through ESV Computing Regions or through stand-alone systems to meet their needs. However, intermediate size districts express the most inconsistent level of satisfaction. Many intermediate size districts believe that an in-house alternative may be cost effective and provide a greater degree of administrative control and flexibility. Overall, district satisfaction depends more on the direct services they use, and less on the structure to administer these services. In this regard, districts are more concerned with what they purchase and receive, and less concerned with management control of ESV Computing Region operations.

Small and intermediate size districts are concerned about the effects that changes may have on the direct services they procure from ESV Computing Regions.

These districts are more vulnerable to changes in support since they have less administrative depth than large districts. The implementation of UFARS and anticipated IDB implementation efforts have created an element of uncertainty and continuing procedural and reporting modifications for all districts. This changing environment and requirements have produced significant state-wide benefits, but have also created an element of risk for individual districts. This risk has been mitigated for many districts by participation in ESV Computing Region administrative computing support.

ALTERNATIVES

The following alternatives are courses of action that could be taken to address the identified findings:

- The ESV Computing Council could establish a systematic schedule to analyze specific computing center consolidation and service center location issues as part of the timetable for future computing center hardware or software upgrades.

- ESV Computing Regions could remain the primary source of initiatives to plan and provide the mix of services, and alternative means to provide them, through consolidation or cooperation with other ESV Computing Regions.

- The ESV Computer Council could develop an overall plan for provision of regional services that specifies the minimal services to be provided in each Region, and alternate means of access to services that cannot economically be provided.

RECOMMENDATION

The ESV Computer Council should develop a multi-year agenda to analyze specific issues such as combination of computing among ESV Regions and needs for upgrade of hardware or software.

Any change in ESV Region support to districts must be planned and carefully implemented. The current high level of satisfaction could be impaired by significant changes to current support. The ESV Computer Council should plan its agenda for longer range benefits to regional support.

6. DISTRICT COMPUTING OPTIONS AND EFFICIENCY

FINDINGS

The proliferation of administrative computing options for districts conflicts with objectives to most efficiently provide service and support on a regional basis.

Districts are provided voluntary authority to work with ESV Computing Regions in any capacity they desire. Regions must plan for optimal staffing and computing support without the benefit of longer term commitment from districts. In this regard, Regions are the providers of service of last recourse where districts are free to implement their own in-house systems.

District administrative computing support options perpetuate inefficiency for districts, ESV Computing Regions and the Department of Education.

District individualism is important, even where the district is served extensively by an ESV Computing Region. However, the cost effectiveness of many regional services depends on economies of scale that depend in some part on participation of certain districts that may seek alternative support. The distinction between technical possibility and administrative responsibility is an important, yet under-valued concern when perpetuating options for administrative computing support.

ALTERNATIVES

The following alternatives are courses of action that could be taken to address the identified findings and issues:

- MDE could identify and support one alternate system for FIN, SSS and SSS, and restrict its support of other options.
- The Legislature and MDE could recognize the inefficiency that is perpetuated by multiple options and accept this situation as a trade-off for local control.
- MDE can provide districts with the freedom of computing support options, but withhold state funding or subsidy to support these options.

RECOMMENDATION

Districts should be provided the freedom to choose among computing support options, but funding support or subsidy should not be provided by MDE or the Legislature for options that are not supported by MDE or ESV Computing Regions.

Districts should not receive funding support for administrative systems that do not support MDE objectives for data accuracy, timeliness, and comparability within FIN, PPS or SSS applications.

7. SUPPORT AND APPROACHES FOR IDB IMPLEMENTATION

FINDINGS

Support for IDB implementation is broad based, but significant hurdles exist in restoring the inertia of implementation.

While many districts do not understand or perceive specific benefits, they do broadly support IDB implementation. The implementation efforts to date have resulted in district and regional planning and compliance efforts. A renewed implementation program must overcome reluctance to comply by those who do not perceive benefit for their district, and credibility problems created by partial implementation.

Without state funding support, uniform IDB implementation will not occur at the district level.

Districts are reluctant to undertake IDB implementation efforts on a voluntary basis. Incomplete or inconsistent IDB implementation will not provide the statewide benefits that are fundamental to this initiative.

Until the implementation requirements reach some final form, districts and ESV Computing Regions will be reluctant to commit to implementation.

Most efforts to complete the specification of IDB reporting standards and procedures are on hold. As a result, ESV Computing Regions are generally unable and unwilling to undertake additional procedural development and program modification until their commitment is required. This is reinforced by the circumstances of delay and costs for efforts to date.

The credibility of the Department of Education has been impaired by the lack of continued funding support for IDB implementation.

The ESV Computing Regions and districts are more reluctant to commit to IDB implementation due to current circumstances. The MDE must overcome this obstacle to restore district and Region-based implementation efforts.

ALTERNATIVES

The following alternatives are courses of action that could be taken to address the identified findings and issues:

- MDE could complete the specification, testing, and development of procedures prior to any implementation efforts.

- MDE could develop a prototype, test it with implementation in one ESV Computing Region, and demonstrate practical district, region, and state use prior to full implementation state-wide.

- MDE could proceed with planned statewide IDB implementation to accomplish statewide benefit and timing objectives.

RECOMMENDATION

MDE should be funded in order to proceed with planned statewide implementation of IDB, but should take efforts in the development of standard or prototype applications for district and regional benefit.

Effective MDE implementation of IDB will require funding support for assistance in data collection, consolidation, and applications development for ESV Regions. MDE must overcome the delay in IDB implementation by demonstrating practical benefits to districts. Reporting requirements should be implemented at the earliest opportunity, and funding commitment to development of IDB applications should be provided for district benefit.

8. ESV COMPUTING REGION AND ECSU RELATIONSHIPS

FINDINGS

No single form or structure of ESV Computing Regions and ECSUs has been able to meet the unique service needs for districts.

A range of experiences and operating relationships exists among ESV Computing Regions and ECSUs, ranging from administrative combination to total absence of cooperation. There is only limited service overlap among ESV Computing Regions and ECSUs, and most districts perceive a distinction between their administrative computing support needs and their educational and related training needs. The combination or cooperation of ESV Computing Regions and ECSUs is based more on regional inter-district history and operating philosophy than on the need to combine or distinguish operations.

Although there is limited redundancy of services and activities among ESV Computing Regions and ECSUs, there is potential for redundancy.

One ESV Computing Region is administered by an ECSU, and others exercise varying levels of discussion and agreement to benefit from distinction and coordination of services that each provides. However, some do not effectively communicate or coordinate their activities. The missions prescribed for ESV Computing Regions and ECSUs are broad enough to result in some areas of redundancy, specifically in extended services such as administrative, human resource, and microcomputer technology services. The potential and demands for supplemental revenue generation have been an important reason why ECSUs and ESV Computing Regions provide these services. The lack of any state level coordination of ESV Computing Regional and ECSU functions supports the potential for negative effects of uncoordinated services. This situation is further complicated by the proliferation of other co-op and special service districts authorized under joint powers statutes.

ALTERNATIVES

The following alternatives are courses of action that could be taken to address the identified findings and issues:

- ESV Computing Regions and ECSUs could be merged by legislative initiative.
- ESV Computing Regions and ECSUs could be required to have overlapping representation on their Board of Directors.
- MDE could provide more effective coordination of its oversight function of ESV Computing Regions and ECSUs to determine that effective cooperation and service planning is a function of administering state subsidy to the two types of organizations.

RECOMMENDATION

MDE oversight should be better coordinated and linked to funding support for ESV Computing Regions and ECSUs.

MDE should provide funding support to ESV Computing Regions based on performance and cooperation. MDE staff support should oversee both recipients of funding support, and identify opportunities for more effective delivery of service.

9. MICROCOMPUTER SUPPORT BY ESV COMPUTING REGIONS

FINDINGS

ESV Computing Regions have made an inconsistent commitment to micro computer support and technology.

The role of ESV Computing Regions in technology and training for microcomputers varies widely throughout the state. In the metropolitan area, the transition of ESV Computing Regions toward distributive processing has been the impetus for implementing and training on relatively sophisticated microcomputer applications. Microcomputer technology transfer is fundamental to computing support and is an important source of operating revenue. In other Regions, microcomputer technology transfer is provided in conjunction with the less complex batch building functions to support regional processing. Very limited microcomputer support is provided by Regions I and II.

The role of ESV Computing Regions as a primary source of microcomputer technology transfer for administrative computing support is uncertain.

The microcomputer development, training, and support available to districts varies among ESV Computing Regions. Each perceives a different role in supporting microcomputers, and Regions are not clearly responsible for microcomputer support to districts. This is inconsistent with the responsibility of ESV Regions to provide for the administrative computing support needs of member districts.

The large number of alternate providers of microcomputer services and support diminishes the efficiency of ESV Computing Regions in providing this service.

Most ESV Computing Regions can support only a limited number of microcomputer packages and applications. The benefits of greater consistency in microcomputer applications support is diminished by the range of software and support options that exist.

ALTERNATIVES

The following alternatives are courses of action that could be taken to address the identified findings and issues:

- Each ESV Computing Region could evaluate, support and provide training on the microcomputer packages they believe are advantageous to their member districts.

- An MDE supported microcomputer technology transfer center could be established or supported by one ESV Computing Region, to provide a full range of service and support to all districts.

RECOMMENDATION

A central statewide resource should be designated to provide the depth of intermediate and advanced training and package applications support that may not be cost effective to provide in each ESV Computing Region. This center could be designated as one of the existing or planned ESV Computing Region training centers.

ESV Regions should continue to be the primary source of microcomputer support for districts, but more specialized services and a software library should be funded for state-wide access.

10. STATE SUBSIDY OF ESV COMPUTING REGIONS

FINDINGS

The current state subsidy to ESV Computing Regions has declined relative to overall regional operating expenditures, and bears little relationship to original state objectives for administrative computing support.

The current static mechanism for annual ESV Computing Region operating support does not satisfy the interests or concerns of any party. Also, many districts that have implemented stand-alone systems believe that ESV Computing Regions are inequitably subsidized for service to member districts.

The Legislature and Department of Education are unclear about what they receive from the ESV Region computing support subsidy.

The Legislature's objectives for funding subsidy are not clearly specified. As a result, it is impossible to measure performance or accomplishment relative to this support.

Funding support for ESV Computing Regions has become operational support in its application and bears little relationship to district needs.

The original intent of state funding support was to benefit districts. With the completion of UFARS implementations, the support to ESV Computing Regions can no longer be linked to district needs state-wide.

ALTERNATIVES

The following alternatives are courses of action that could be taken to address identified findings:

- The state could fund specific ESV Computing Region development and implementation efforts separate from operations, in order to obtain project oriented benefits for specified objectives.
- The state could base its subsidy formula on the cost or value of information that it requires from ESV Computing Regions and districts.
- Districts could be funded directly based on a determination of costs and efforts necessary to support state reporting requirements.
- The state subsidy to ESV Computing Regions could be allocated based on a needs formula based on enrollment, number of districts served and inflation.
- The state subsidy to ESV Computing Regions could be eliminated.

RECOMMENDATION

The Legislature should fund specific development and support activities of ESV Computing Regions, including costs of data consolidation and reporting on district information. These development and support efforts should be identified and administered by the ESV Computer Council as part of the budget review process.

Specific objectives are needed to provide a better set of expectations between the ESV Computing Regions and the ESV Computer Council. State subsidy is needed for data collection and consolidation efforts that benefit MDE. These benefits should be the primary basis for subsidy.

11. ROLE AND FUNCTION OF THE ESV COMPUTER COUNCIL

FINDINGS

Districts do not fully understand the role and functions of the ESV Computer Council.

The ESV Computer Council has an important responsibility for oversight of regional computing support. However, the lack of clear understanding of its role and functions by many districts limits its effectiveness in advocating district issues.

The historic role of the ESV Computer Council has been oversight of ESV Computing Regions, but the need for more significant involvement with district needs is important.

The ESV Computer Council has limited financial support, and is in turn limited in the activities it can undertake on behalf of changing district needs. The ESV Computer Council is perceived as a political or administrative body, and its role in longer range planning for district and regional computing support has not been as active as desired by many districts.

ALTERNATIVES

The following alternatives are courses of action that could be taken to address identified findings:

- The ESV Computer Council could act in more of a technical advisory capacity to ESV Computing Regions.
- The ESV Computer Council could act in more of an oversight capacity for the review of hardware and software purchases and programs for the full range of administrative computing needs of districts.
- The ESV Computer Council could undertake an effort to identify functions and roles for communication to districts.
- The ESV Computer Council could be a more active participant in recommending and implementing state funding support for ESV Computing Regions, and be more proactive in defining priorities and actions for ESV Computing Region functions.

- The ESV Computing Council could have the authority to develop and implement standards for a wide variety of ESV Computing Region functions, including plans and budgets, application and alternate application standards, data privacy, data storage and retention policies, state subsidy allocation, and regional performance measurement.

RECOMMENDATION

The ESV Computer Council should broaden its current functions, and become more active to provide planning and oversight support to ESV Computing Region activities. This role should include significant new efforts to develop and implement standards and performance assessment for ESV Computing Regions.

A more active role for the ESV Computer Council will require staff support. Significant talent and experience exists on the ESV Computer Council, and staff support can leverage this talent in longer range planning efforts. Also, the ESV Computer Council should develop a program to build district awareness of its objectives and activities.

12. TELECOMMUNICATIONS AND COMPUTING CENTERS

FINDINGS

Telecommunications costs and limitations in non-metro areas are a practical constraint to consolidating computing centers.

The non-metro areas of the state generally have technical telephone system constraints and costs that are an important issue in regional services to districts.

Telecommunications costs are an important consideration in determining the location of non-metro Regions and services.

Consolidating computing centers and retaining a larger number of service centers would require a greater extent of telecommunications support and costs for the districts that obtain interactive service, and for the service centers that support regional software. The proposed STARS network could greatly benefit the cost effectiveness of these combinations.

Quality of non-metro telephone line data transmission is a practical limitation on inter-regional and interactive district service.

Many areas of the state have inadequate telephone system quality for effective data transmission applications. Significant system improvements will be required to provide basic technical transmission quality. These improvements will take place over an extended period of time that may not support the growth in computing needs among non-metro districts. Implementation of the STARS network would support improvements to transmission quality and provide a schedule for improvements.

Consolidation of regional computing support through telecommunications development raises issues regarding the equitable distribution of telecommunications costs.

Any change in location of regional computing support will effect on-line users, and districts that will seek on-line access. Telecommunication costs must be equitably distributed to avoid penalizing districts that are geographically distant, and those that do not have on-line access.

Security is an important telecommunication consideration in combining regional computing centers.

Transmission and applications security must be achieved in the physical and procedural support for regional computing centers.

If a statewide telecommunications network existed, districts could receive lower cost and a wider range of service from ESV Regions.

Implementation of STARS between computing centers and service centers would benefit all member districts through lower costs.

Consolidation of regional computing centers may require an increase in telecommunications capacity to support on-line processing.

Peak demands on telecommunications and CPU capacity will increase in a consolidated regional computing center that supports on-line processing.

Telecommunications limitations are most significant for intermediate size districts that seek interactive data processing support.

Intermediate size districts express the greatest interest in interactive processing to meet a broad range of administrative computing needs. Telecommunications limitations to providing this service on a regional basis is one impetus for district implementation of stand-alone administrative systems. Many Regions rely on intermediate districts to support the economies of scale in processing support capabilities and costs among member districts.

ALTERNATIVES

The following alternatives are courses of action that could be taken to address identified findings:

- STARS telecommunications trunk line development could be implemented with a priority to support computing center consolidation.

- Telecommunications costs could be subsidized by state expenditures to offset the state level cost savings that would result from fewer computing centers.

- Computing centers could be consolidated based only on the cost savings offset of combined computing operations.

RECOMMENDATION

If the opportunity to consolidate computing centers precedes STARS implementation, a portion of the state subsidy to ESV Computing Regions should be used to offset telecommunications costs savings that may be achievable after STARS implementation.

Implementation of the STARS network, specifically trunk line development, will provide significant benefits to ESV Computing Regions, specifically to the cost and transmission quality to link service and computing centers. However, STARS implementation should not constrain ESV Computing Region plans. Telecommunication links between districts and computing centers will support on-line service for a large number of districts.

13. TRENDS IN ON-LINE PROCESSING NEEDS

FINDINGS

There is a growing trend toward on-line processing needs by districts, particularly in administrative management applications.

The implementation of the regionally supported student information system is an example of district use and need for on-line data entry and access.

Telecommunications limitations and costs may inhibit non-metro regional support of on-line systems and result in more in-district system implementations.

This could result in higher costs to remaining districts, limits on the scope of support that could economically be provided, and proliferation of alternate systems approaches among districts.

ALTERNATIVES

The following alternatives are courses of action that could be taken to address identified findings:

- The MDE and the ESV Computer Council could conduct an on-going assessment of interactive data processing, particularly focusing on the needs of intermediate size districts.

- Interactive software could be developed in a microcomputer format to support only those major needs for management information support such as student information systems.

RECOMMENDATION

MDE and the ESV Computer Council should more actively solicit input on the changing on-line software needs among districts, facilitate development or procurement of microcomputer software to support these needs, and analyze the needs and opportunity for on-line regional software support requirements.

The ESV Regions effectively serve their members but there is a need to understand the statewide interest in new administrative software, specifically for interactive management use. The MDE and ESV Computer Council have overseen the development and implementation of regional based finance, payroll, and student systems, but should broaden their focus to include the method of access to regional software. The ESV Computer Council and MDE should facilitate efforts by districts to jointly develop or procure software that may not be supported by an ESV Region.

14. DATA STANDARDIZATION

FINDINGS

The lack of continued state-level support for the UFARS account structure conflicts with state objectives for data accuracy, timeliness and comparability.

There are only nominal MDE efforts to support UFARS account structure use among districts, yet there is a need for this central support. Regions and districts currently interpret codes based on their historic use or preference. Many Regions perform this function in support of districts, but without active MDE support.

The lack of commitment to UFARS support after its implementation provides a poor example for other state level efforts to standardize the use and application of data.

The implementation of any uniform data collection and reporting structure requires a level of on-going maintenance commitment after initial implementation. In the absence of this support, data accuracy, timeliness, and comparability will be impaired. This is a significant consideration for the on-going value and integrity of IDB data. Commitment must be made to on-going support after the initial implementation of IDB.

Some Regions have unclear interpretations of responsibilities for data standardization.

Some Regions do not perceive their role and responsibilities to include monitoring and enforcing UFARS code use. Each Region brings errors and discrepancies to the attention of districts, but there is not clear responsibility to require district compliance to state or regional code standards.

Unless data standardization is emphasized, the lack of uniformity will impact the integrity of IDB information.

A primary objective of the IDB is to link financial, staff and student data to provide a basis for management decisions. Without standardization in the use of code structures, the MDE and districts will not accomplish their objectives for this information.

ALTERNATIVES

The following alternatives are courses of action that could be taken to address identified findings:

- The responsibility for defining the code structures and standards should be specifically assigned to one agency, with sufficient funding by the Legislature to conduct this oversight function. One of the following agencies might assume this role:
  - The UFARS Council, which performed this function in previous years when funding was provided.
  - The ESV Computer Council, which is responsible for establishing of guidelines for regional computing activities.
  - The MDE, which is currently not staffed to assume this role, but which does provide limited resources to resolve issues related to code structures.

RECOMMENDATION

MDE should provide staffing support to the ESV Computer Council to manage statewide standards and interpret issues regarding application of these standards.

A state level coordinating effort is needed to provide guidance to ESV Regions. The Regions provide direct district assistance in the application of codes, but currently lack guidance. Code structure and standards should include UFARS and other IDB data to ensure consistency in all data reporting to MDE.

15. STUDENT INFORMATION SYSTEM IMPLEMENTATION

FINDINGS

The benefits of student information system implementation vary among districts because these systems provide management information beyond the primary compliance or reporting functions of finance and payroll systems.

Student information applications provide management information that is unique from other administrative computing services supported by the ESV Regions. The benefits of these applications will depend on the needs and desire of districts to use this support.

Because the needs of districts are more variable for student information applications support, multiple options will be required to satisfy this range of needs.

State-wide support for Region-based as well as microcomputer student information applications are needed to meet the broad range of district needs. The three options include Region-based student information systems that can be accessed on-line or through data entry and reporting methods, stand-alone microcomputer applications, and microcomputer data capture software that collects the information for IDB reporting. Not all of the ESV Computing Regions support the range of alternatives.

ALTERNATIVES

The following alternatives are courses of action that could be taken to address identified findings:

- Each ESV Region should be required to support microcomputer student information software, as well as a Region-based system and a microcomputer data capture system.
- Each ESV Region should be required to support a Region-based student information system and a microcomputer data capture system.
- ESV Regions should not be required to support any specific alternative for student information.

RECOMMENDATION

Each ESV Region should be required to support a Region-based student information system and a microcomputer data capture alternative, but support a microcomputer alternative in the future.

Student information systems have great potential for use in managing district operations. The most important aspect of this information is its timely use in scheduling and attendance functions. The value of this information is enhanced by on-line access. Unfortunately, there are currently limits to on-line capacity at many non-metro districts. Regional systems and data capture systems should be implemented by each ESV Region, but fully functional microcomputer system support by non-metro ESV Regions will provide the greatest benefit to districts.

16. LONG-RANGE PLANNING

FINDINGS

Current circumstances and uncertainty inhibit longer range planning efforts and benefits.

The current political and organizational circumstances do not provide the ability to effectively plan and manage regional services for longer term benefits to districts.

The Legislature provides inconsistent commitment to MDE, ESV Computing Regions, ECSUs and districts.

There has been a lack of coordinated, longer range program development and coordination by the Legislature, as characterized by authorization of uncoordinated special service districts and inconsistent support of IDB implementation.

The biennial legislative budget process complicates planning and implementation efforts.

Two-year budget cycle does not provide the flexibility to adopt longer range plans and implementation programs to meet on-going changes.

The range of administrative computing options available to districts complicates regional planning for service.

Most districts obtain regional computing support on a one to three-year commitment. Planning for efficient utilization of regional computing support requires a three to five-year program. In the current dynamic computing support environment, the departure of any intermediate or large size districts effects planning assumptions and longer term commitments. Regions must be able to respond to potential loss of member districts by downsizing or modifying service programs and staffing.

The political environment in which administrative computing support is provided detracts from the ESV Computing Regions' primary focus on providing services to member districts.

Unfortunately, the need to operate in a political environment demand time from other management functions. The philosophical focus of political activities is too often on the options or exceptions that should be available to districts, and not on the identification of objectives for support and service.

ALTERNATIVES

The following alternatives are courses of action that could be taken to address identified findings:

- Planning activities could be managed by ESV Regions on behalf of member districts.
- The ESV Computing Council could be the planning organization primarily for the Region-based FIN, PPS and SSS systems.
- The ESV Computer Council could perform a broader role in planning for administrative computing support, alternatives, and reporting requirements to MDE.

RECOMMENDATION

The ESV Computing Council should be the primary planning organization for district and regional computing support, alternative systems support, and administrative support services.

The need for statewide planning will become more significant as the number of computing support options grows. The ESV Computer Council's planning role should incorporate these options, some of which may involve alternate or in-district systems support. This broad role must provide leadership to districts that seek alternatives for administrative computing support.

17. MDE ORGANIZATIONAL SUPPORT

FINDINGS

MDE is not currently organized, staffed or funded to accept substantial new responsibility for data processing activities.

Any significant new responsibilities or program activities in data processing will require MDE staffing support or reliance on ESV Computing Regions for implementation.

As currently staffed, MDE must rely entirely on decentralized regional efforts and implementation.

There is currently little state-wide support to provide a central focus for regional activities.

Some districts seek to bypass regional reporting and report directly to MDE, which conflicts with MDE's current support capabilities.

MDE is currently not capable of serving as the receiving agency for district data. Also, ESV Computing Regions perform aspects of a data audit function for the reasonableness and application of standards. This function is very important to assuring basic data accuracy in state reporting and eventual data use for management.

ALTERNATIVES

The following alternatives are courses of action that could be taken to address the identified findings:

- MDE could maintain a capability to accept data in a prescribed format, without editing, from districts.
- MDE and the ESV Computer Council could designate one ESV Computing Region to accept data from districts that are supported by stand-alone systems.
- Districts could be required to submit data to their ESV Computing Region of choice, and be prohibited from directly submitting it to MDE.

RECOMMENDATION

MDE should require districts to submit data to the ESV Region of their choice in order to limit the staffing and direct support required by MDE. This will ensure a level of review by the ESV Region in the course of the data consolidation.

The ESV Region consolidation of data from districts will provide an important level of review before this information is submitted to MDE. The decentralized consolidation of data may also support MDE objectives to retain IDB data at ESV Regions.

18. ESV COMPUTING REGION CAPACITY TO IMPLEMENT IDB

FINDINGS

Computing capacity to implement IDB exists at ESV Computing Regions, although the need for additional disk storage space may be required in some ESV Regions to support data retention.

Several ESV Regions have made an investment in computing capacity to accommodate anticipated data processing requirements as defined in the original IDB implementation plans. However, Regions II, III and V are currently at 85-90 percent of CPU capacity during peak processing periods. Depending on IDB processing requirements, these Regions may need to upgrade their CPU capacity or process this data during off-peak periods.

The efforts to re-define and re-establish IDB implementation should not jeopardize the ESV Computing Regions' investment in computing support.

Long-range plans of ESV Computing Region have been altered by the changing plans for IDB implementation. In this regard, districts are paying for system improvements that were made in anticipation of IDB implementation. Any changes to these plans must consider this issue.

ALTERNATIVES

The following alternatives are courses of action that could be taken to address the identified findings:

- MDE could proceed as planned, and rely on ESV Region efforts to develop data consolidation procedures and disk storage capacity.
- MDE could assess the impact of new plans for IDB implementation on ESV Computing Regions.

RECOMMENDATION

MDE should assess impact of IDB implementation and any changes on the plans and computer capacity of ESV Computing Regions prior to new implementation efforts.

MDE needs to confirm its plans and requirements for IDB implementation with ESV Regions. Data retention and compilation procedures must be addressed so that the Regions can plan more effectively for investment in equipment.

19. OTHER-AGENCY DATA ACCESS NEEDS

FINDINGS

District access to non-education public agency data is a longer term need that will depend on the practicality of applications and concerns about data access and privacy.

Some larger districts and certain ESV Computing Regions routinely obtain other agency data in tape format to load into regional databases. The information most frequently obtained is health and human service data from county agencies. Small districts do not perceive practical need for this information at this time.

Development efforts for electronic access to other agency information should be conducted for state-wide benefit.

Although the priorities for development of these applications are low, state-wide development efforts are needed to address the significant data access and privacy issues.

ALTERNATIVES

The following alternatives are courses action that could be taken to address the identification findings:

- MDE could fund program development to support ESV Region access to county based information.

- MDE could consider other agency data access as an aspect of future software revisions.

RECOMMENDATION

MDE and ESV Computing Region activities should focus initially on IDB implementation, and consider data access from other agencies as an aspect of future software revisions.

Those ESV Regions that extensively use other agency information have developed a cost effective method for access. This access is not currently a priority for most districts, although its use may become more important with the development of more sophisticated management information capabilities.

20. DISTRICT COMPUTING SUPPORT TRANSITION

FINDINGS

Most ESV Computing Regions require a multi-year district commitment to regional hardware upgrades. This requirement limits a district's ability to switch to other available computing support alternatives.

Even though districts can change their regional support or implement in-house systems, these alternatives may have financial implications due to hardware assessments or the on-going cost of migration to an alternate system.

The assessment of certain fixed upgrade costs may limit district alternatives while making ESV Computing Regions vulnerable to member departure at the end of the assessment period.

The end of service for a special assessed upgrade, or any anticipated new assessment may provide incentive for certain districts to seek alternate processing support in groups. This is potentially a detriment to ESV Computing Region planning and operational continuity.

ALTERNATIVES

The following alternatives are courses of action that could be taken to address the identified findings:

- Districts should be required to make multi-year commitments to ESV Regions to support investment in equipment and services.
- ESV Regions should be required to provide districts with the option of paying an equipment assessment or making a multi-year commitment for regional service.
- Districts should be allowed to vote on financing/assessment alternatives that support each ESV Regions capital investment plans.

RECOMMENDATION

Districts should be allowed to vote on financing and assessment alternatives that support each ESV Region's capital investment planning process.

The planning process for ESV Region investments in capital investment should allow districts to vote based on allocated costs for regional support. Where possible, districts should be allowed the option to pay assessments or make multi-year commitments to regional support. Multi-year commitments provide benefit to ESV Regions and districts. Regions can more effectively invest and plan for service, while districts must take a longer term perspective on developing and managing their resources for information support.

APPENDIX A

ESV Regional Computing Centers

I ESV Data Processing Cooperative (Moorhead) Burdette Clifford, Executive Director

II Arrowhead Regional Computing Consortium (ARCC) (Duluth) Gary Pothast, Executive Director

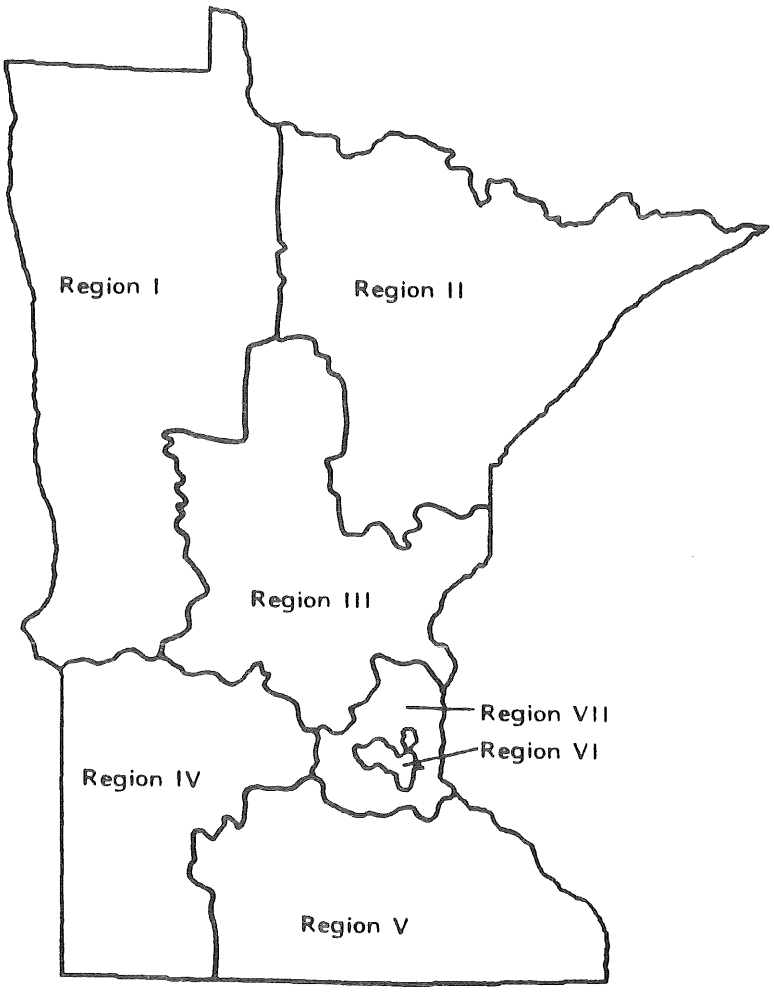
III ESV Region III (St. Cloud) Jerome Foecke, Executive Director

IV ESV Region IV, Division of Southwest West Central ECSU (Marshall) Marvin Niedan, Director of Administrative Services

V ESV Region V Computer Services Cooperative (Mankato) Gordon Gibbs, Executive Director

VI Metro II (St. Paul) Merton Johnson, Executive Director

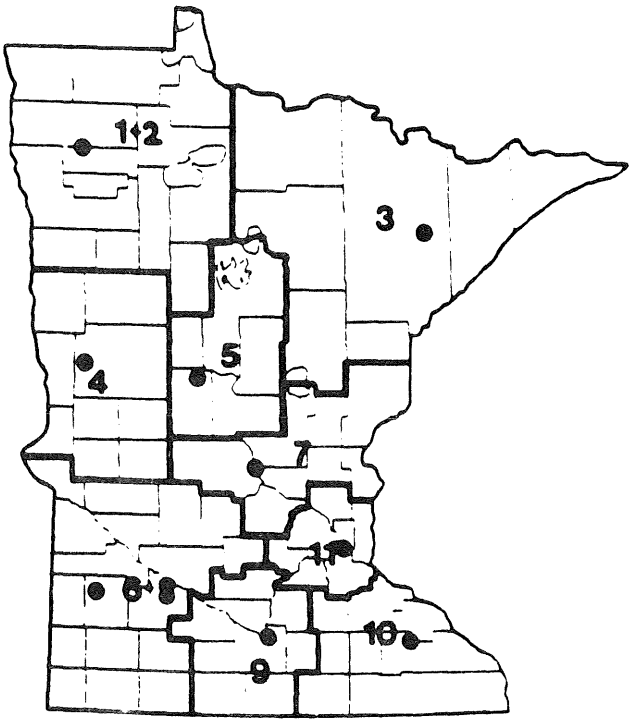
VII Technical & Information Educational Services (TIES) (Roseville) E. Ronald Carruth, Executive Director



APPENDIX B

Educational Co-operative Service Units (ECSUs)

ECSU Region		ESV Region
1 & 2	Northwest Minnesota ECSU, Thief River Falls Fred Rohde, Director	I
3	Northeast Minnesota ECSU, Virginia Steven Anderson, Director	II
4	West Central ECSU, Fergus Falls DuWayne Balkon, Director	I
5	ECSU Five Staples Gary Nytes, Director	III
6 & 8	Southwest/West Central ECSU, Marshall Glen Shaw, Director	IV
7	Central ECSU, St. Cloud Robert Cavanna, Director	III
9	South Central ECSU, North Mankato Lester Martisko, Director	V
10	Southeast ECSU, Rochester Dean Swanson, Director	V
11	Metropolitan ECSU, Arden Hills Gerald Mansergh, Director	VI, VII



APPENDIX C

ESV Regional Analysis School District Survey

The survey instrument sent to all 436 independent school districts is on the following pages.

Education Data Systems Section 851 Capitol Square - 550 Cedar St. Paul, MN 55101	**ESV REGIONAL ANALYSIS SCHOOL DISTRICT SURVEY**	ED-01961-01

GENERAL INFORMATION AND INSTRUCTIONS: The 1989 Legislature (Laws of Minnesota, 1989, Chapter 329, Article 12) requested the ESV Computer Council to conduct a study of the current ESV Regional Management Information Center structure. As a part of this study, this survey is being distributed to all school district superintendents. The results will be evaluated as part of an analysis of the ESV Regional structure.
Individual responses will be analyzed and held anonymous by Grant Thorton, Accountants and Management Consultants. Please read each question carefully before responding, and return the completed survey to the Minnesota Department of Education at the above address by September 27, 1989. Thank you for your cooperation in this effort.

District Name: _____ District Number: _____

Name of person completing this survey: _____ Title: _____

INFORMATION ABOUT YOUR DISTRICT

1. How many students (K-12) were enrolled in school year 1988-1989?

   [ ] 0 to 499 [ ] 500 to 999 [ ] 1,000 to 1,999 [ ] 2,000 to 4,999 [ ] 5,000 or more

2. Is your school district located within the Twin Cities seven-county metro area? [ ] YES [ ] NO

3. With which ESV Regional Computer Center are you affiliated?

   [ ] Region 1 (Moorhead) [ ] Region 2 (ARCC) [ ] Region 3 (St. Cloud) [ ] Region 4 (SW & WC ECSU) [ ] Region 5 (Mankato) [ ] Region 6 (METRO II) [ ] Region 7 (TIES)

4. What systems are you currently using at your ESV Regional Computer Center (check all that apply)?

   [ ] Regional Finance System [ ] Regional Payroll Personnel System [ ] Regional Student System

5. Indicate the ways in which **UFARS** reporting is made to the ESV Regional Computer Center (check all that apply):

   [ ] Pre-printed forms [ ] Paper report produced by PC [ ] Terminal input directly to regional system [ ] Computer diskette [ ] Magnetic tape [ ] File transfer from district computer directly to ESV Region [ ] Other (specify): _____

6. Do you send files by computer over phone lines from your district computer to the ESV Regional computer?

   [ ] Yes [ ] No, regional capacity does not exist [ ] No, regional capacity exists, but it is not cost effective.

7. How do you propose to comply with the Integrated Data Base (IDB) reporting requirements (check all that apply)?

   [ ] Enter data through the ESV regional systems already being used by the district
   [ ] Implement an in-district staff and/or student system on a micro- or mini-computer
   [ ] Implement ESV-PPS and/or ESV-SSS specifically for for this purpose
   [ ] Utilize a micro-computer input system, such as Paradox or Fourth Dimension
   [ ] Paper forms
   [ ] Other (specify): _____

8. How many computer work stations (CRT terminals, PCs, etc.) does your district use to provide **UFARS** data to your ESV regions?

   [ ] None [ ] 1 to 2 [ ] 3 to 5 [ ] 6 or more

9. What percentage of time are the work stations devoted to providing **UFARS** data to the ESV region?

   [ ] 0 to 25% [ ] 26 to 50% [ ] 51 to 75% [ ] 76 to 100%

10. Please estimate the current value of computer equipment used in **UFARS** reporting to your ESV Region:

    [ ] $ 0 [ ] $ 1 to $ 9,999 [ ] $ 10,000 to $ 24,999 [ ] $ 25,000 to $ 99,999 [ ] $ 100,000 or more

11. Please itemize your annual district costs incurred for **UFARS** reporting in FY 1988-1989:

    a. Local hardware and software lease/purchase/maintenance . . . . . $ _____
    b. District staff to support regional reporting (include fringe benefits) . . . . . $ _____
    c. Communications / telephone lines . . . . . $ _____
    d. Regional charges for finance, payroll/personnel and student systems . . . . . $ _____
    e. Regional charges for other services not included in the above (e.g., shared accountant) . $ _____
    f. Other (specify): _____ $ _____

(CONTINUED ON REVERSE SIDE)

INFORMATION ABOUT YOUR DISTRICT

12. From which organizations do you receive services (ESV Region, ECSU, Co-op, Vendor, etc.)? Please check the services in the matrix provided below.

SERVICES	ESV REGION	ECSU	OTHER CO-OP	VENDOR	OTHER
a. Accounting Services	[ ]	[ ]	[ ]	[ ]	
b. Payroll Services	[ ]	[ ]	[ ]	[ ]	
c. Student Services	[ ]	[ ]	[ ]	[ ]	
d. Training/support on use of regional systems	[ ]	[ ]	[ ]	[ ]	
e. Training/support for alternative FIN systems	[ ]	[ ]	[ ]	[ ]	
f. Training/support for use of micro systems	[ ]	[ ]	[ ]	[ ]	
g. Instructional management services	[ ]	[ ]	[ ]	[ ]	
h. Purchasing services	[ ]	[ ]	[ ]	[ ]	
i. Other (specify): _____	[ ]	[ ]	[ ]	[ ]	

13. Has your district used regional staff to fill-in for district staff?

[ ] Never [ ] Occasionally [ ] Routinely

14. Assuming elimination of the state subsidy, which could result in a 25 percent increase in fees payable to the ESV Region, and no requirement to affiliate with a region, how would you meet your training/support and data processing needs for UFARS and IDB reporting (check all that apply)?

[ ] Continue at the ESV Region.
[ ] Form or use a cooperative, ECSU, or other organization.
[ ] Develop or buy a system to use in-house.
[ ] Contract with a commercial vendor.
[ ] Don't know.
[ ] other (specify): _____

15. Control of the ESV Regional Computing Centers should:

[ ] be administered by the Minnesota Department of Administration.
[ ] be administered by the Minnesota Department of Education.
[ ] continue as is.
[ ] be by a governing board appointed by (specify): _____
[ ] other (specify): _____

16. Charges for use of the proposed intra-state telecommunications network should be borne by:

[ ] administrative unit requesting the data.
[ ] administrative unit providing the data.
[ ] the State
[ ] other (specify): _____

17. In addition to information provided by MDE education and administrative systems, districts exchange information with other agencies (e.g., Health, Human Services, Retirement, University Extension, Public Safety). Please describe the types of information you provide to or obtain from other agencies.

AGENCY	TYPE OF INFORMATION

(CONTINUE ON NEXT PAGE)

RESPONSES TO STATEMENTS

INSTRUCTIONS: Please respond to each statement by checking [X] the box which most closely indicates the extent to which you agree with the statement. If the statement does not apply to your district, or if you have no opinion with regard to the statement, check the "N/A OR NO OPINION" box.

STATEMENT	STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE	NO OPINION
18. Our ESV Regional Computer Center provides cost-effective data processing service.	[ ]	[ ]	[ ]	[ ]	[ ]
19. Our ESV Regional Computer Center software is effective and supports our data processing needs.	[ ]	[ ]	[ ]	[ ]	[ ]
20. Our ESV Regional Computer Center staff provide timely support appropriate to our needs.	[ ]	[ ]	[ ]	[ ]	[ ]
21. Our ESV Regional Computer Center staff are a resource for a broad range of management information.	[ ]	[ ]	[ ]	[ ]	[ ]
22. Our ESV Regional Computer Center staff are knowledgeable about systems supported.	[ ]	[ ]	[ ]	[ ]	[ ]
23. Data processing is completed within a reasonable time period.	[ ]	[ ]	[ ]	[ ]	[ ]
24. A reduction in district staff has been achieved through regional processing.	[ ]	[ ]	[ ]	[ ]	[ ]
25. A reduction in district computer operations has been achieved through regional processing.	[ ]	[ ]	[ ]	[ ]	[ ]
26. The ESV Regional Computer Center has fostered inter-district cooperation.	[ ]	[ ]	[ ]	[ ]	[ ]
27. The geographical location of our ESV Regional Computer Center is appropriate to meet our needs.	[ ]	[ ]	[ ]	[ ]	[ ]
28. In general, benefits of participating with our ESV Regional Computer Center outweigh the shortcomings.	[ ]	[ ]	[ ]	[ ]	[ ]
29. Our district costs for data processing would be reduced if we did not belong to and ESV Regional Computer Center.	[ ]	[ ]	[ ]	[ ]	[ ]
30. The ESV Regional Computer Center keeps us informed in a timely manner of data reporting changes made and required by the State.	[ ]	[ ]	[ ]	[ ]	[ ]
31. ESV Regional Computer Center staff provide training support appropriate to our needs.	[ ]	[ ]	[ ]	[ ]	[ ]
32. The ESV Regional Computer Center provides our district with adequate opportunity to participate in developing regional center policies.	[ ]	[ ]	[ ]	[ ]	[ ]
33. The administrative structure of our ESV Regional Computer Center effectively meets the needs of districts in our region.	[ ]	[ ]	[ ]	[ ]	[ ]

(CONTINUED ON REVERSE SIDE)

RESPONSES TO STATEMENTS (Continued)

	STATEMENT	STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE	NO OPINION
34.	Training/support should be provided by regional educational organizations (e.g., ECSUs, other co-ops, etc.) rather than by the ESV Regional Computer Center.	[ ]	[ ]	[ ]	[ ]	[ ]
35.	The range of services provided by the ESV Regional Computer Center adequately meets the changing needs of our district.	[ ]	[ ]	[ ]	[ ]	[ ]
36.	The financial system operated by the ESV Regional Computer Center adequately meets the needs of our district.	[ ]	[ ]	[ ]	[ ]	[ ]
37.	The payroll and personnel system operated by the ESV Regional Computer Center adequately meets the needs of our district.	[ ]	[ ]	[ ]	[ ]	[ ]
38.	The student system operated by the ESV Regional Computer Center adequately meets the needs of our district.	[ ]	[ ]	[ ]	[ ]	[ ]
39.	Our district is satisfied with the quality of the service we have received from our ESV Regional Computer Center.	[ ]	[ ]	[ ]	[ ]	[ ]
40.	The ESV Regional Computer Center staff are cooperative and helpful.	[ ]	[ ]	[ ]	[ ]	[ ]
41.	The ESV Regional Computer Center satisfies our requests for special reports for our district.	[ ]	[ ]	[ ]	[ ]	[ ]
42.	ESV Regional staff should perform the functions of a school district business manager.	[ ]	[ ]	[ ]	[ ]	[ ]
43.	Providing data to the ESV Regional Computer Center duplicates other district information collection efforts.	[ ]	[ ]	[ ]	[ ]	[ ]
44.	Our district understands the capabilities and activities of the ESV Computer Council.	[ ]	[ ]	[ ]	[ ]	[ ]
45.	Our district is adequately represented in ESV Computer Council policy decisions and recommendations.	[ ]	[ ]	[ ]	[ ]	[ ]
46.	It would be useful to have access to information from other agencies, such as Health and Human Services, through the proposed intra-state telecommunications network.	[ ]	[ ]	[ ]	[ ]	[ ]
47.	Access to the proposed intra-state telecommunications network to send and receive information to other agencies would save time for our staff.	[ ]	[ ]	[ ]	[ ]	[ ]

COMPLETE THE "OPINIONS" SECTION ON THE NEXT PAGE

OPINIONS SECTION

INSTRUCTIONS: The following statements relate to the services you receive from the ESV region and other administrative units. Where applicable, please continue your response on an additional piece of paper if there is not enough space available.

48. What new services could be provided by the ESV Region to benefit the school districts?

49. How does the cost of obtaining services via your ESV Regional Computer Center compare to what you expect your costs would be for similar services obtained some other way?

50. What changes would you like to see in the way the ESV Regional Computer Center is funded and run?

51. How would consolidation of two or more of the ESV Regional Computer Centers or consolidating ESV Regional Computer Centers with ECSUs impact your district?

52. Please list and describe any additional issues or comments regarding the political structure of the ESV Regions.

THANK YOU FOR YOUR COOPERATION

APPENDIX D

Legislative Materials

Below is the legislative wording mandating this study excerpted from Chapter 329, Article 12, Laws of Minnesota for 1989, page 2576.

The ESV computer council shall study and evaluate the current structure of regional management information centers. The study shall include at least the following:

(1) the number and location of regional data processing centers;

(2) the number, location, and administrative structure of regional service centers;

(3) the relationship of regional computing centers to the departments of administration and education;

(4) the administrative relationship of regional processing or service centers to other regional administrative units, including educational cooperative service units;

(5) the relationship of the development of regional processing to state telecommunications networks; and

(6) other administrative or related issues, as determined by the council.

The council shall report to the education committees of the legislature by February 1, 1990, its recommendations for changes. The report shall also include recommendations about the role of the council in implementing the recommendations.

$50,000 in 1990 is for the ESV computer council to contract with the information policy office in the department of administration for this study.

APPENDIX E

Graphs of ESV Region and District Characteristics

A series of graphs have been generated to illustrate certain important district and ESV Region characteristics.

School Districts by Size - depicts the number of school districts within each ESV Region by size categories (0 - 499, 500 - 999, 1,000 - 1,999, 2,000 - 4,999, and 5,000 - or more).

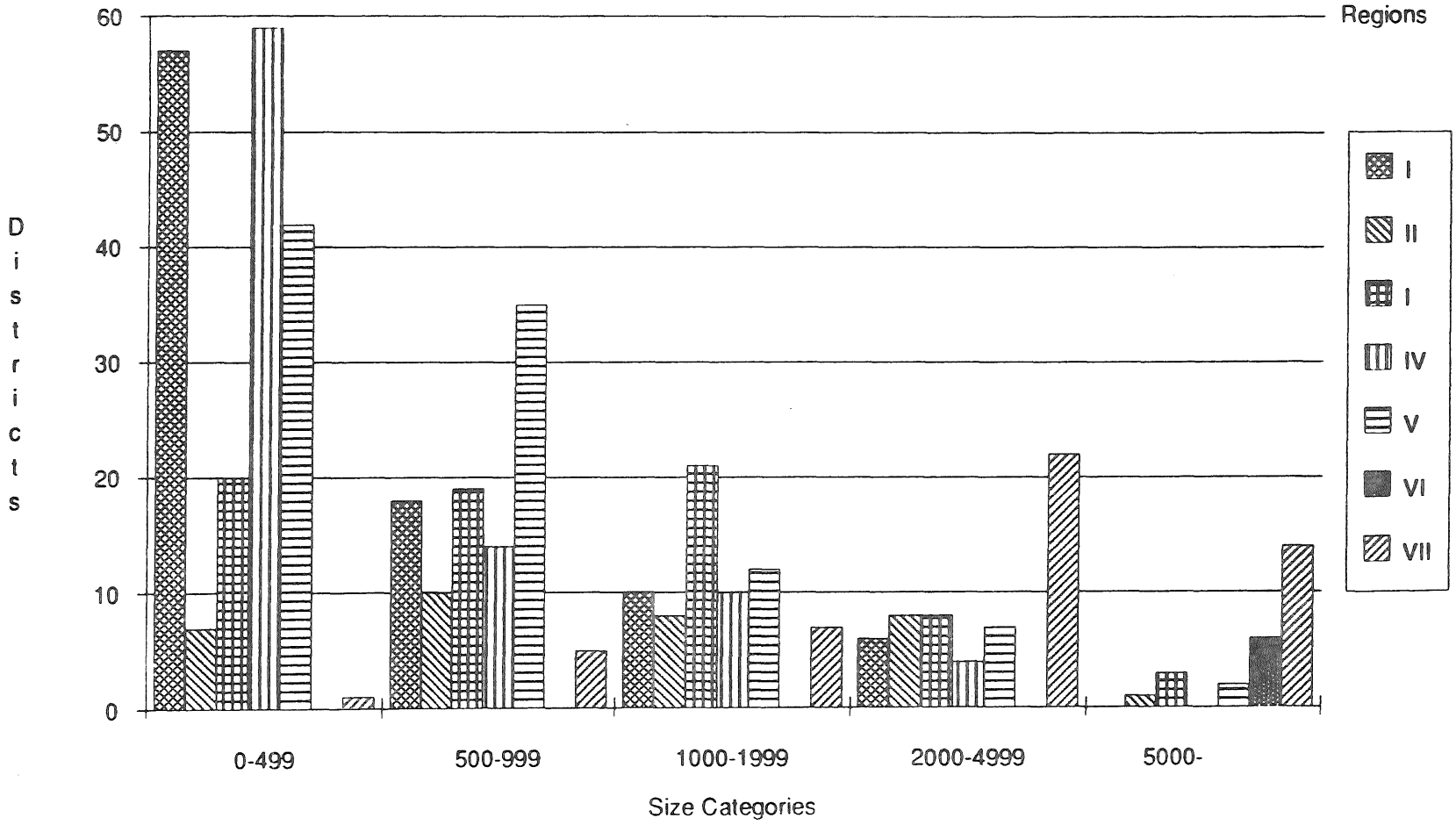
Percent of Students by ESV Region - a pie chart that shows the percentage of students served by each ESV Region. The total student population is 729,612.

Percent of Districts by ESV Region - the percentage of districts each ESV Region serves is illustrated in this pie chart. There are 436 K-12 school districts.

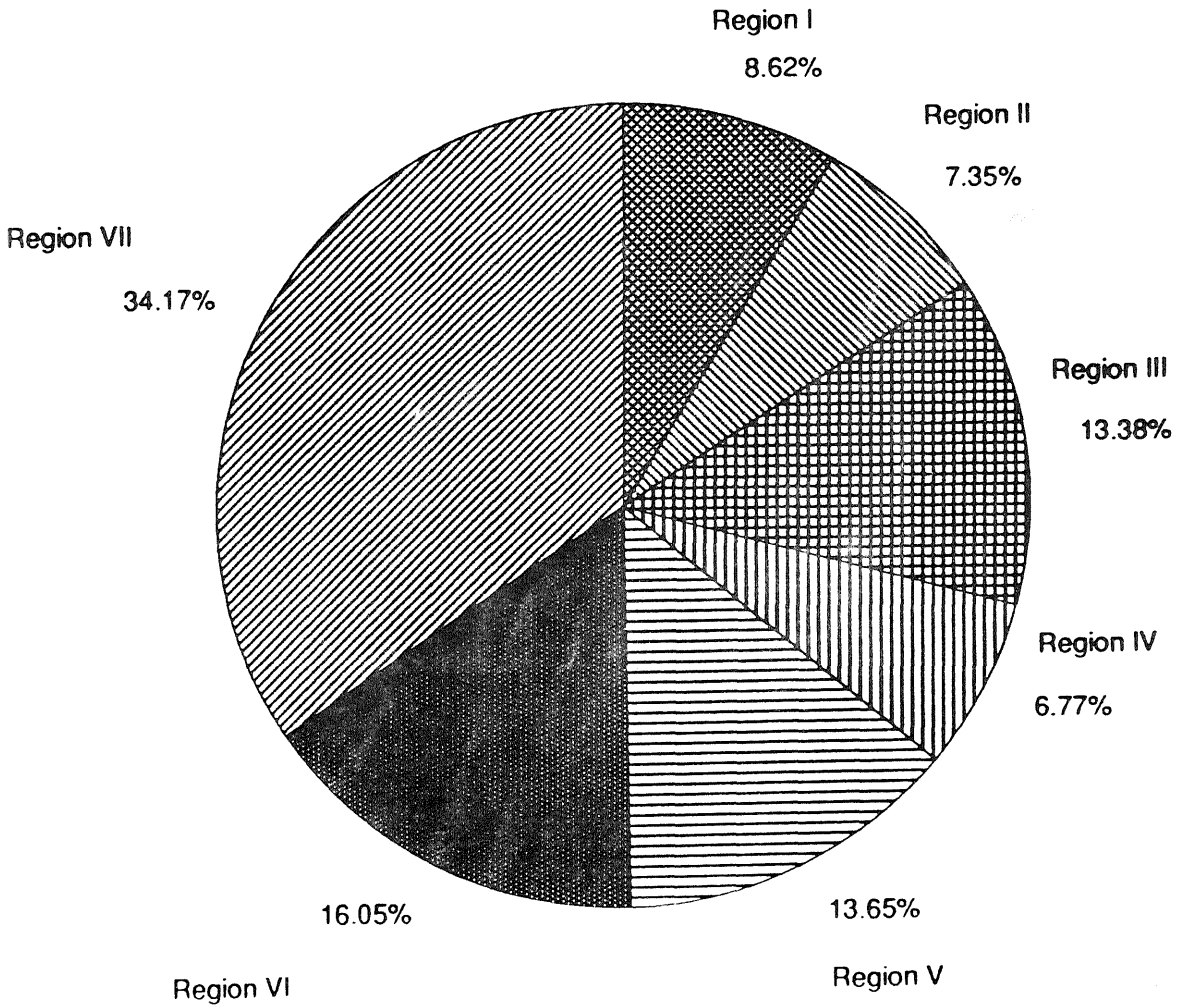
Districts and Students by ESV Region - combined on this chart are the number of districts and students served by each ESV Region. This is accomplished by having two value scales, districts on the left and students on the right.

ESV Systems Use by Region - this chart illustrates the percent of districts within each ESV Region that use either ESV-FIN, ESV-PPS, ESV-SSS or an ALT FIN system. For example, if 90 districts of 100 in an ESV Region uses the ESV-FIN system, the chart would show a 90 percent use for that ESV Region and application.

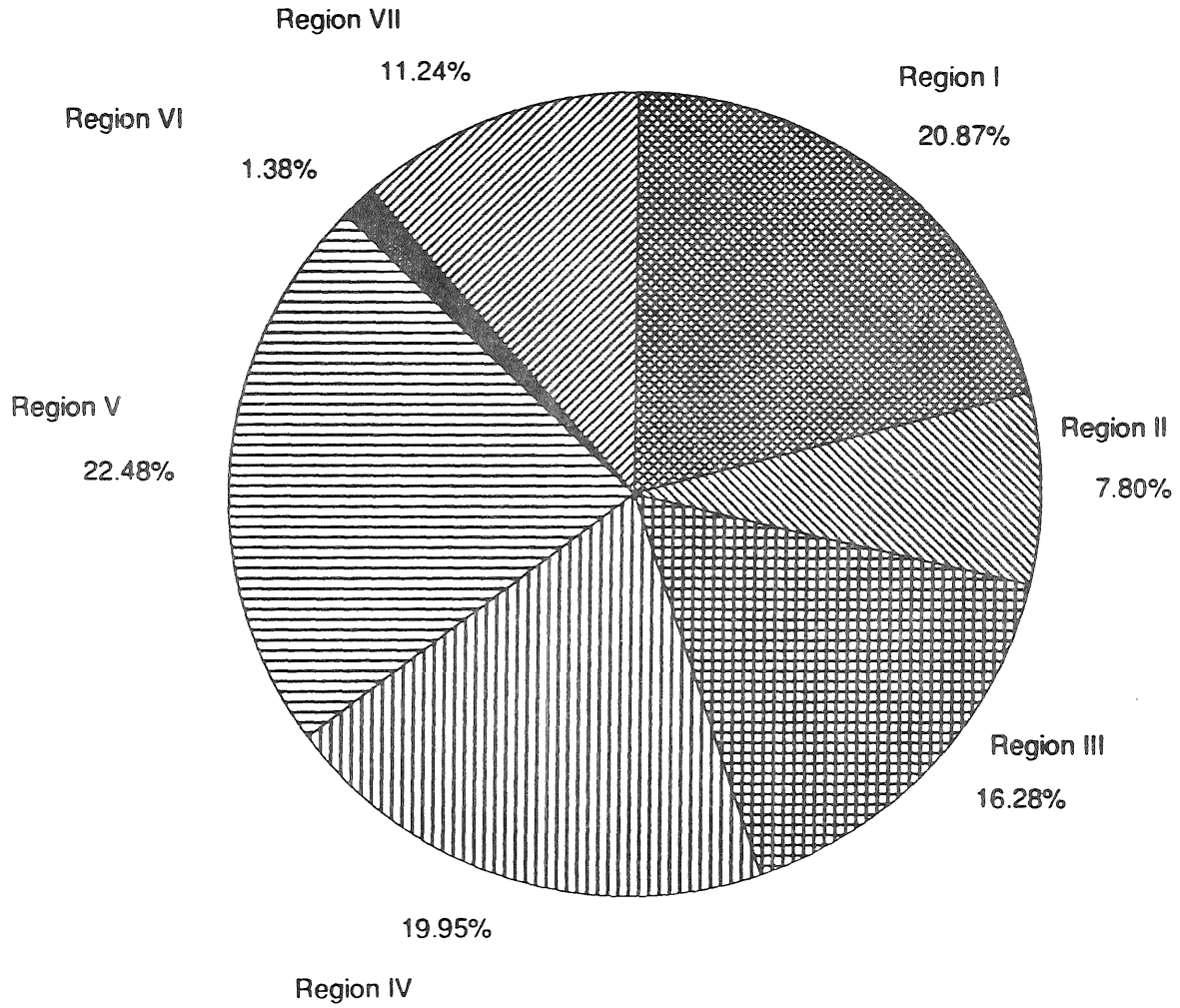
School Districts by Size



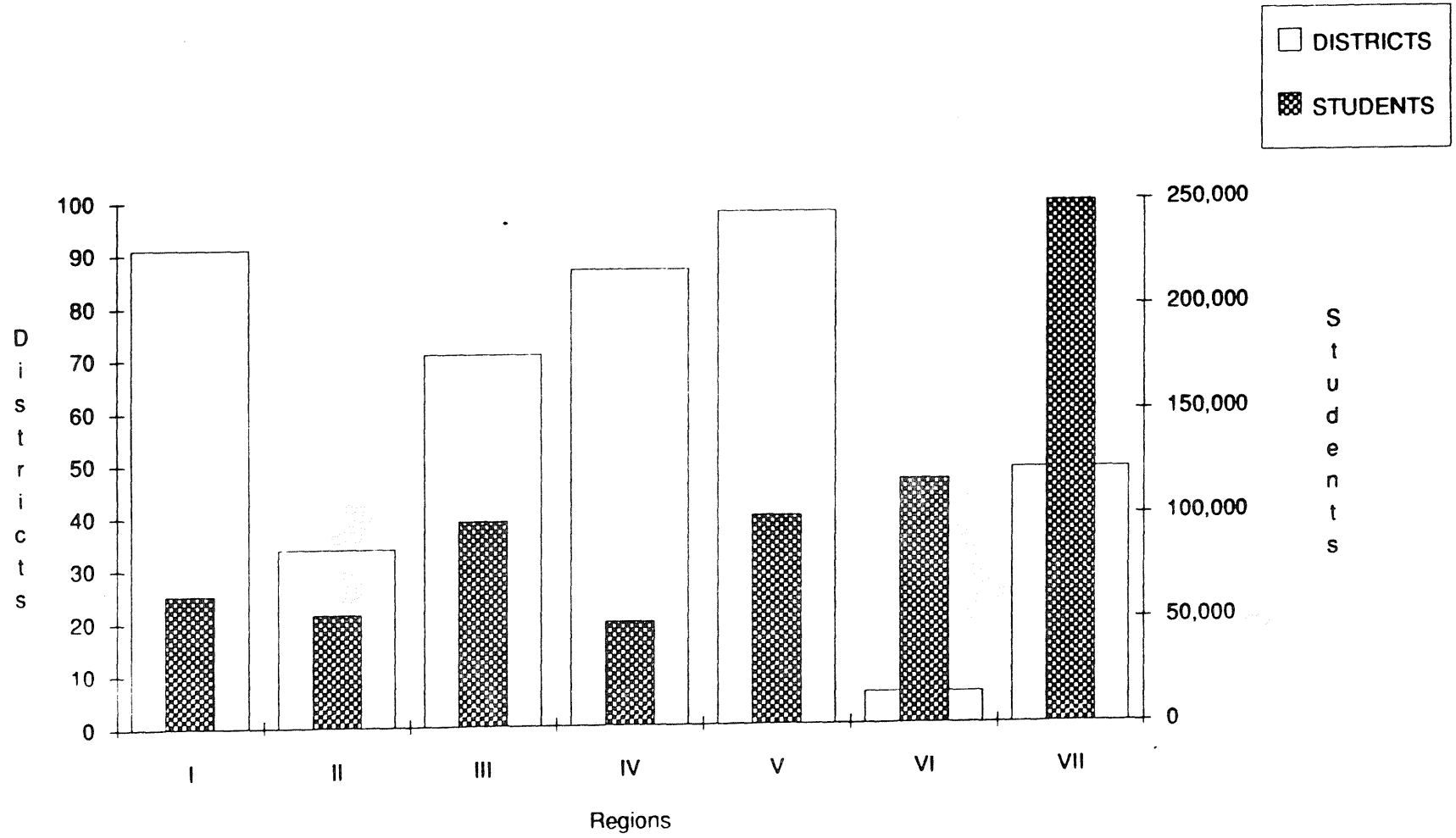
Percent of Students by ESV Region



Percent of Districts by ESV Region



Districts and Students by ESV Region



ESV Systems Use by Region