

LEGISLATIVE REFERENCE LIBRARY STATE CARITOL SAINT PAUL, MINN MARKED • PERSONNEL RECORDS

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INSTRUCTIONAL USES

O GUIDANCE/RESEARCH

O STUDENT PERSONNEL

TRANSPORTATION

O AUDIO VISUAL

O HEALTH SERVICES



* 570 7699 Department of Health, Education, and Welfare Office of Education, Washington D.C. 20202 Elementary and Secondary Education Act of 1965 (P.L. 89-10) TITLE III Data Form This block for U.S.O.E. use Project Region State State County only number Allotment code code cõde A Reason for submission of this form (check one): 1. (a) X initial application for Title III grant or resubmission of disapproved project application for continuation grant (Ъ) (c) _____ end of grant period report For all purposes except initial application give previous project 2. Note: This is an initial application for an number: operational grant subsequent to planning grant No. OEG 3-6-000239-0340. В Major description of project (check one only): 1. (a) _____ innovative (b) X exemplary (c) _____ adaptive Type of activity (check one or more): 2. (a) X planning of program (d) X operation of program (b) _____ planning of construction (e) ____ constructing (c) _____ conducting pilot activities (f) _____ remodeling С Total Information For Educational Systems Project title: 1. Briefly summarize the purpose of the proposed project and give the 2. item number of the area of major emphasis as listed in sec. 303 P.L. 89-10 (see instructions). ITEM NO. To coordinate the development of data processing services in school systems; provide for the automatic generation of required educational data to the Minn. State Dept. of Education: serve as a center for research and development of computer applications in educational management and instruction and provide for a continuous program of in-service training for school personnel. 3. Suburban School Services Joint Board Name of applicant (local education agency) Hennepin 4. County name (applicant) Cong. district. 6425 West 33rd Street St, Louis Park, Minnesota 55426 6. Street address (applicant) . zip code city state (to be selected) 7. Name of director Telephone: Area code, local (unknown) 8. Street address (director) zip code city state 929-2651 9. Harold Enestvedt 612 Name of person authorized to receive grant Phone: Area code, local Superintendent of Schools, St. Louis Park and Clerk, Suburban School Services Joint Board 10. Position or title 6425 West 33rd Street St. Louis Park, Minnesota 55426 11. Street address city zip code state 1/13/67 Date submitted Signature of person authorized to receive grant

D	1.	List	the	number	$\circ f$	each	
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- congressional district served: 3,4,5
- 2. Number of counties served: 7 3. Number of LEA's served: 61

4. Total estimated population in geographic area served: 1,602,000

5. Latest average per-pupil ADA expenditure of local education agencies served: 430.00

E TITLE III BUDGET SUMMARY FOR PROJECT									
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									983,376
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g) other professional							
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(b) Curriculum requirements study (including planning for future need)					60	,000	61	0,000				Sec. Street Directory and Sec.		6,000	6,000
(c) Resource availability and utilization studies			1	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1				De- 140-1472 (1997)				₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩		 N. 1011 CH44 M 44 June 101 101 101 101 101 101 101 101 101 10	
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(j) Social studies/humanities		al an an a she of carrier of the second			60	,000	6	0,000				an a		3,000	5,000
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<pre>(v) Material and/or service centers</pre>		423400.7794.75g		an a der 100 juni 4 juni 4 juni 4 juni 4 juni				an a		entalisegy-sis-particisegy				ндоликаналык жана калалар жана калалар жана жана калалар жана жана калалар жана жана жана калалар жана жана жан	88 (2014)(2014)(2014)(2014)(2014)(2014)(2014)(2014)(2014)(2014)(2014)(2014)(2014)(2014)(2014)(2014)(2014)(2014)
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PART II - NARRATIVE

I. THE COMMUNITY

- A. The estimated population of the seven-county area to be served by this project is 1,602,000. This population in the Twin Cities metropolitan area is approximately 50% of the total population in Minnesota.
- B. State and Twin Cities metropolitan area school district maps are attached. The following counties and local educational agencies provide the primary service area for this project:
 - 1. Counties:

Anoka Carver Dakota Hennepin Ramsey Scott Washington

2. Local Educational Agencies:

Special	Independent	Independent	Independent
<u>Díst. #</u>	Scl. Dist. #	<u>Scl. Dist. #</u>	<u>Scl. Dist. #</u>
-	10/	071	())
T	104	2/1	622
6	106	272	623
11	107	273	624
12	108	274	625
13	109	275	659
14	110	276	716
15	111	277	717
16	112	278	719
	136	279	720
	191	280	721
	192	281	728
	194	282	734
	195	283	831
	196	284	832
	199	285	833
	200	286	834
	247	393	879
	251	570	883
	252	586	887
	261	588	1875
		621	2681

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County Boundary Interstate Freeway
 Municipal Boundary Proposed Interstate Freeway
 Water Body Other Major Roads

COOPERATIVE DATA PROCESSING PROJECT

SCHOOL DISTRICTS ADOPTING RESOLUTIONS AS OF 1/13/67

DIS	TRICT	SUPERINTENDENT	ENROLLMENT K-12
1.	Alexandria	Arthur O. Hafdal	2,898
2.	Anoka	Erling O. Johnson	21,821
3.	Bloomington	Fred M. Atkinson	20,323
4.	Burnsville	John Metcalf	4,951
5.	Columbia Heights	Howard A. Jenson	7,186
6.	Edina-Morningside	Spencer W. Myers	10,156
7.	Fridley	John K. Hansen	5,277
8.	Golden Valley	Howard B. Casmey	1,599
9.	Lake ville	Donald J. McGuire	1,610
10.	Orono	J. K. Haehlen	2,012
11.	Osseo	LeRoy V. Norsted	10,341
12.	New Prague	Robert V. Kafka	1,047
13.	Richfield	Carlton Lytle	11,300
14.	St. Louis Park	Harold Enestvedt	10,986
15.	Spring Lake Park	Edward H. Knalson	4,163
16.	Wayzata	Robert D. Snyder	5,169
17.	White Bear Lake	E. M. Thomsen	9,649
18,	Willmar	Lowell Melbye	3,521
		TOTAL STUDENT POPULATION	134,009

II. STATEMENT OF NEED

A. Educational and Cultural

The educational and cultural resources and facilities of the Twin Cities metropolitan area are both numerous and significant in both the national and local picture. In the development of this program a great deal of effort was made to involve a representative sample of all these resources in the planning. The statement below innumerates the means of involvement that has been established and which will be continued in the further development of the project.

Teachers and other school personnel represent one of the primary resources of the Twin Cities metropolitan area. They have been considered as such in this program and have been included in as direct and full a manner as possible in the planning of the program. In-service programs were developed related to educational data processing in order to acquaint teachers and administrators with both the potential and limitations of educational data processing. In addition, this in-service sequence was used to determine the knowledge and needs of the various members of the educational staffs. In order that these resources be developed to their maximum, it will be necessary to conduct continuous in-service education for all educational personnel.

Many other cultural and educational agencies have been involved in the planning and development of this program. The Minnesota State Department of Education has served as a focal point of continued interaction for the project staff and will continue to serve in a direct communication and advisory capacity in the further development of this project. It is hoped that this program may serve as a prototype from which steps may be taken to institute a state-wide data processed information system. Both Dr. John Bicknell, former Director of Research for the Minnesota State Department of Education, and Dr. James Scamman, Midwestern States Educational Information Project, Minnesota State Department of Education, have served as members of the advisory committee for the planning of the educational data processing project. Mr. Sigurd Ode, ESEA Title III Administrator, State of Minnesota, and Dr. Donald Davis, ESEA Title V, State of Minnesota, have served in an advisory capacity, providing many helpful suggestions and information. The development of the program will continue to be coordinated with the State Department of Education and the Midwestern States Educational Information Project.

The other Educational Research and Development Councils of the State of Minnesota have received direct communications on the progress of the planning study and have offered ideas and shared in the development of the proposal. Included in this group are Dr. Wesley Shepard, North East Minnesota Research and Development Council, Dr. Charles Bruning and Mr. William Scarborough, West Central Minnesota Research and Development Council, and Dr. Fred Roessel, Central Minnesota Research and Development Council.

The University of Minnesota is one of the major resources of the State of Minnesota. It has contributed to the development of the TIES Project through the members of the Department of Educational Administration. The members of this department have contributed time and ideas in this development. Dr. Van D. Mueller, Executive Secretary of the Educational Research and Development Council of the Twin Cities Metropolitan Area and a member of the Department of Educational Administration, has coordinated the communication between the planning group and the University of Minnesota.

Dr. Douglas Anderson, a member of the staff at the University of Minnesota Computer Center, has also served in an advisory capacity.

Non-public schools were involved in the planning of the educational data processing system both as members of the advisory council and as participants in all phases of the study. One of the non-public schools was utilized in the in-depth interview process which determined the scope and structure of in-service activities. All non-public schools have been given the opportunity to participate in the project under special terms related to their specific needs. All non-public schools were issued copies of the final report and the prospectus related to it for distribution in their systems.

Business and industry make up a most vital part of the resources of the Twin City Metropolitan Area. Such outstanding producers of computer systems and hardware as Control Data Corporation, Honeywell, International Business Machines, and Remington Rand Univac have facilities located here. Many other outstanding companies in many aspects of the economic area are also located here. Included as a part of the advisory committee during the planning of the project were representatives of the following companies: Minnesota Mining and Manufacturing, Super Valu Incorporated, and the Bemis Bag Company. Those individuals involved from these companies have direct experience in the data processing field with the companies they represent.

Outstanding cultural resources abound in the metropolitan area and serve to reflect the high values that Minnesotans and residents of the metropolitan area place on them. Some of the more well-known, both locally and nationally, are the Minneapolis Symphony Orchestra, the Minnesota Theater Company, the Tyrone Guthrie Theater, the St. Paul Institute, and many art institutes, including the Walker Art Center and the Minneapolis Institute of Arts.

Private colleges reflecting the diversity of interest and the commitment to education of the metropolitan area residents are many in number. Some of those which come immediately to mind are Hamline, Macalester, Minnesota Bible College, St. Catherine's College, and St. Thomas College. Representatives of both the private colleges and the cultural organizations were included in the makeup of the advisory committee.

Another recently established resource in the metropolitan area is the Upper Midwest Regional Educational Laboratory. Direct contact has been maintained with Dr. John Prasch, Director of the laboratory, to keep him informed of the developments of the planning program and to seek his suggestions relative to the direction and development of the program.

While the number of resources listed here does not approach the number of cultural and educational resources available in the metropolitan area, it was the intent of the planners to involve those agencies which had some knowledge of the practical application of data processing and whose ideas might be applicable to the needs of the educational community.

Other educational agencies which have been utilized in the planning of the educational data processing system were the Suburban School Services Joint Board, Mr. Andrew Hobart, St. Louis Park School Board, and Milt Ojala, Director of the Hopkins Public Schools Modular Curriculum Program.

B. General Needs

The educational problems of the Twin Cities metropolitan area duplicate problems which can be cited for other sections of the country, and yet they are distinctly different. The metropolitan complex of Minneapolis-St. Paul serves as the financial, industrial, education, and cultural center for the Upper Midwest Region. The metropolitan area embracing the Twin Cities and surrounding suburban communities is the thirteenth largest population center in the fifty states.

The educational problems listed in this section are intended to be illustrative of those found in the Twin Cities area. A coordinated educational information system would be expected to contribute to the solution of problems. No priority is intended in the following listing, and some overlapping is obvious due to the interrelationships which exist in this field.

<u>Metropolitan and Rural</u>. The twin cities of Minneapolis and St. Paul with their surrounding suburbs have educational problems similar to those of other large metropolitan areas. Schools in the "inner city" face constantly changing pupil enrollments quite different from the rapid but fairly stable growth of the suburbs. At the same time the seven-county area faces problems characteristic of other rural regions of America with widely-scattered medium-sized population centers and sparsely settled rural areas. Programs of various kinds for disadvantaged and culturally different children and youth have been undertaken by local school systems, but a systematic appraisal of such educational problems and development of coordinated area-wide solutions remain to be undertaken.

<u>Population Mobility</u>. Population mobility creates many different problems in government, employment, and housing, but serious ones also exist in the educational field. Although the Upper Midwest is a net population exporter and is less urbanized than the U.S. as a whole, about one-fifth of the region's population moves each year and one-half changes residences over a five-year period. Coordination of educational services and programs to asist in elimination of differential educational opportunities is increasingly important in an age when progress in transportation and communication is accelerating.

Changing Pattern of Employment. The economy of the sevencounty area can best be described as one in transition from an emphasis on natural resources and semi-skilled tasks to one based largely on human resources and skills. Employment patterns reflect these changes. Education appropriate to thes changing patterns of employment makes heavy demands on the educational establishment to revise goals and objectives. Financial Problems of Elementary and Secondary Schools. A sound and equitable program of school financing and organization is a critical need in elementary and secondary education in the area. Great variations in support of education exist, and too much of the support has fallen on the inadequate resources available at the local district level. The development of a coordinated educational information center would have to keep this situation in mind in developing supplemental and supportive programs.

Other Needs and Problems. Many other educational problems of the Twin Cities Metropolitan Area could well be cited. It is hoped that those cited thus far are sufficient to illustrate some pressing needs which can be further refined and elaborated during the planning period.

The problems of coordination and communication in the seven-county metropolitan area are particularly relevant to the educational problems of the area. The establishment of a coordinated education information system is basic to serving the need for education reasonably equal in quantity and quality.

C. Rationale

The casual and sporadic development of data processing services in individual school systems lacks completely any integration of processes. While data processing has been primarily used in schools to mechanize particular functions, the major potential of information processing lies in the development of total information systems. The potential for management of school systems, definition of objectives and measurement of achievement of objectives, analysis of pupil needs and programming to meet those needs, and individualization of learning through computer assisted instruction is immense.

The individual school system has not historically been able to undertake such innovative programs. The purpose of the supplemental center described here is not solely oriented to the provision of services, but also to the development of applications, the definition of cost-benefit relationships of such applications, the coordinated development of computer assisted instruction applications, and the provision of in-service training required for school personnel to assure maximum utilization of the potential of educational information processing. This planning proposal is being sponsored by the applicant agency in close coordination with other educational agencies in the Twin Cities metropolitan area, for the purpose of providing a facility which can undertake the intensive effort of developing coordinated approaches to applications in schools. Such a supplementary center operated in close contact with the Minnesota State

Department of Education will provide real, continuing thrust to realizing potentialities in this area as well as serve as a model to school districts within Minnesota and the upper-midwest region.

D. Financial Inadequacy

School districts presently utilizing data processing services are presently doing so on a very limited basis when compared with development of the services applied to the various areas of the industrial society. School districts in the metropolitan area are not fully utilizing or not utilizing any data processing services for any or all of the following reasons:

- 1. The availability of data processing services is limited by the amount of money districts have available to them after providing for the basic instructional needs and facilities.
- 2. The cost of hardware and supporting software for individual districts to fill existing and future needs is prohibitive.
- Individual districts find it very difficult to obtain and retain personnel in the data processing field because of increasing monetary competition for competent personnel.
- School districts faced with expanding needs must cope with inadequate tax bases and large commitments to maintaining the instructional program.
- 5. School districts in the metropolitan area are faced with the responsibility of educating 45% of the state's children with a major portion of state aid going to districts outside the metropolitan area.

School districts participating in the initial phases of the program do not have the large amount of funds needed for the initial establishment of the staff and the development of the program of data processing on a wide scale. Further, the cost of hardware to be purchased as the systems develop cannot be met by the small number of schools participating at the outset of the program. As was previously shown in the membership revenue chart, the revenues from members will not meet the expenses to develop the program without federal funds. Consequently, educational data processing services cannot be provided by these districts for the improvement of their total educational program without some assistance from outside sources for the first three years of full operaion. However, it should be noted that districts will pay fees for development and service on a per pupil basis. As previously noted, these fees will increase so that full financial responsibility will be assumed at the end of a three year period.

III. OBJECTIVES

- A. Develop a Cooperative Educational Data Processing System for the Twin Cities Metropolitan Area
- B. Establish a data processing staff devoted exclusively to the unique needs of elementary and secondary education in the Twin Cities Metropolitan Area
- C. Provide for the development of an educational data processing system which may be utilized as a model for the development of a state-wide data processing system.
- D. Expand the present utilization of the computer as a tool in the educational process for the development of a better instructional program
- E. Provide specialized computer services in:
 - (1) Business office and other teacher personnel
 - (2) Student personnel (Elementary and Secondary)
 - (3) Attendance and Census
 - (4) Instructional uses
- F. Make available to school personnel information and resources for better interaction with pupils and for the development of new instructional techniques
- G. Provide a system for better dissemination of information among schools.
- H. Develop a means of exchange of pupil information which will reduce delay in exchange of records.

Specific Long-Range Objectives

- 1. Savings in manual effort by teachers and clerical and administrative staff.
- 2. Timely and accurate preparation of information: Staff student ratio, test result reporting and distribution, state and/or federal reports.
- 3. Improved disseminations of information to all staff members
- 4. Timely preparation of reports for state, other educational agencies and school boards.
- 5. Ability to prepare reports not previously possible because of constraints of time and staff on the information-gathering process.

6. Improvement of educational research through the utilization of electronic data processing techniques.

Some other objectives are:

- 1. Maintain a data processing staff developed for work on educational problems with skills in programming, analysis, etc.
- 2. Utilize greater capability of equipment at smaller expense to the district through cooperation.
- 3. Avoid technological obsolescence more effectively through cooperation.
- 4. Rentention of skilled systems analysis and programming staff members.
- 5. Achieve desirable specialization of functions within a data processing staff.
- Establish a broad base of information to be made available for the analysis of common district problems.
- 7. Develop comparable data through standardization processes. (Comparisons in the past have been very tenuous in nature because not all schools interpret or develop data in the same way.)
- 8. Instruct employees in new techniques and means of operation more economically (Training program costs are included in membership dues).
- 9. Retain consultants of the highest competence and utilize them in the development and realization of long-range systems planning.
- 10. Implement in-service programs for teaching and administrative staff.
- 11. Develop the instructional program more fully and develop new means of instruction through data processing (Modular scheduling, individualized instruction via computer, etc.).



APPENDIX D

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IV. PROCEDURES

A. Implementation Considerations.

1. Structure of Governing Organization

The permanent governing structure for this project will be a non-profit corporation. The governing body of the project will be comprised of a single representative for each school system that has indicated its intent to substantially participate in the project. Some changes in Minnesota statute may be required to implement this recommendation as it relates to non-public schools. Some provision for weighted voting according to school population will be made. (See <u>Minnesota Statutes</u>, Chapter 744 in Appendix)

- 2. Duties of the Governing Body.
 - a. Policy and Objectives.

The governing body will establish policy and objectives in sufficient detail to charter the actions of various committees. They will also establish time tables for completion of tasks to fulfill the objectives and to appraise the effectiveness of the task execution.

b. Priorities.

The governing body will be responsible for the establishment or approval of priorities as brought to them by the Director of Educational Services.

c. Income and Expenditure Budgets.

The governing body will delegate to the Director of Educational Services the responsibility for developing annual budgets of income and expense for their review and approval.

d. Personnel Responsibilities.

The governing body will establish broad personnel policies and delegate authority to the Director of Educational Services for recruiting, appraisal, development, termination and compensation of personnel.

e. Committee Membership.

The board will establish the rules for committee membership and appoint committee and sub-committee chairmen and members to serve for a specified period on the recommendation of the Director of Educational Services.

3. Policy/Technical Committee

Four policy/technical committees are recommended for initial formation. Additional committee and subcommittee will be formed as needed. The four committees are:

- a. Administrative/Financial Information System Policy Committee
- b. Student Information System Policy and Technical Committee
- c. Instructional Uses and Computer Assisted Instruction Policy Committee
- d. Materials Information Systems Policy and Technical Committee

These committees will have various responsibilities and members. These are:

- a. <u>Policy and Objectives</u>. Each of the policy and/or technical committees will recommend establishment of detailed policies and objectives to the governing board in relation to the various systems and subsystems under their jurisdiction.
- b. <u>Priorities</u>. Any conflicts of emphasis among subsystems or applications will be resolved by the governing board upon recommendation of these committees.
- c. <u>Systems Design</u>. If the committee is both policy and technical, it will recommend conflict resolution or make systems decisions brought to it by the project staff.
- 4. Technical Sub-Committees

These sub-committees would carry out the same functions as the combined Policy and Technical Committees except that they would not deal with policy matters.

5. Educational Information System (EIS) Coordinator

Each school system participating in the project will appoint an individual to the position of EIS Coordinator. This individual will be responsible for liaison with the data center personnel and will coordinate all data processing services within his school system. All EIS Coordinators will be at least ex-officio members of any committee or sub-committee whose subjects are of current significance to his school system. This individual will report to a superintendent or assistant superintendent and have a background as a professional educator. Such a person may presently be a principal, assistant principal, guidance counselor or teacher.

It is assumed that the cost of the coordinator would be approximately one dollar per annum per pupil in fiscal 1971 and that his average annual salary, paid by the school system, would be \$12,000.00. The following table indicates the full time equivalency executing the coordinator's tasks:

Population (K-12)	Full Time Equivalency
3,000	. 25
5,000	.42
10,000	.83
15,000	1.25
20,000	1.67

6. Committee/Sub-Committee Membership

Below are listed the various committees and subcommittees and the job titles of persons who will be appointed to these committees.

a. Administration/Finance Information System Policy Committee.

Superintendents Directors of Business Affairs Directors of Elementary and Secondary Education Elementary and Secondary Principals Personnel Directors Systems Analyst - Ex officio

1. Employee Information Sub-System Technical Committee.

Superintendents Directors of Business Affairs Directors of Elementary and Secondary Education Elementary and Secondary Principals Personnel Directors Systems Analyst - Ex officio

2. Accounts Payable/Appropriation & Budgetary Technical Committee.

Superintendents Directors of Business Affairs Directors of Elementary & Secondary Education Elementary and Secondary Principals Systems Analyst - Ex officio b. Student Information Systems Policy and Technical Committee

Directors of Elementary and Secondary Education Elementary and Secondary Principals Department Heads or Subject Consultants Guidance Personnel Systems Analyst - Ex officio Research Consultant - Ex officio

1. Guidance and Research Technical Committee

Directors of Elementary and Secondary Education Elementary and Secondary Principals Department Heads or Subject Consultants Guidance Personnel Systems Analyst - Ex officio Research Consultant - Ex officio

c. Instructional Uses and Computer Related Instruction Policy Committee

Director of Secondary and Elementary Education Curriculum Director or Coordinator Secondary and Elementary Principals Subject Consultants or Department Heads All Staff Consultants - Ex officio Systems Analyst - Ex officio

1. Test Scoring/Analysis Technical Committee

Director of Secondary & Elementary Education Elementary and Secondary Principals Guidance Personnel Subject Consultants or Department Heads Educational Research Consultant - Ex officio Systems Analyst - Ex officio

2. Mathematics Technical Committee

Subject Consultants or Department Head Mathematics Teachers Curriculum Directors or Coordinators Staff Mathematics Consultant - Ex officio Systems Analyst - Ex officio

3. Business Education Technical Committee

Same as above except Business Education Personnel.

4. Social Studies Technical Committee

Same as above except Social Studies Personnel.

5. Science Technical Committee

Same as above except Science Personnel.

6. Advanced CRI Technical Committee

Directors of Secondary & Elementary Education Secondary and Elementary Principals Subject Consultants or Department Heads Selected Teachers Staff Educational Research Consultant -Ex officio Staff Advanced CRI Consultant - Ex officio Selected Staff Subject Consultants - Ex officio

d. Materials Information System Policy and Technical Committee

Librarians AV Directors Curriculum Directors or Coordinators Elementary and Secondary Principals Subject Consultants or Department Heads Staff Materials Information System Consultant -Ex officio Systems Analyst

B. Systems Design Considerations.

1. Integrated Systems Concept. Historically, systems utilizing data processing equipment have not taken the integrated systems concept fully into account. In past utilization of electronic computers, some integration has occurred within a particular application and some applications have been integrated to create sub-systems. Usually, however, the integration has consisted largely of attempting to fit applications together <u>after</u> they had been designed and implemented separately. Usually they have not integrated well.

The integrated system concept implies that an overall structure is <u>first</u> designed for a system, i.e., student information, and that the individual sub-systems, i.e., guidance, attendance, etc., are then designed on a coordinated basis so that they will properly relate to or integrate with the other, once implemented. Similarly, the individual applications are designed so that they will have a high degree of integration. <u>This concept will be exten-</u> sively utilized in this project. If this is not done, most of the initial systems design and programming effort will have to be redone at a later time in order to create integrated systems, obviously a substantial economic waste.

- 2. <u>Re-invention</u>. Considerable progress has been made in recent years by elementary and secondary schools in developing many individual applications, i.e., payroll, attendance, scheduling, test scoring, etc. This project will utilize this previous experience in its own system design and whenever possible use the actual programs developed and implemented by others.
- 3. Leadership of Data Processing Staff. The systems personnel on the staff will provide the leadership with the design efforts. This will be accomplished by using several schools for data collection with respect to formulating a proposed system and bringing to the respective policy/technical committees those conflicts that cannot be resolved. The committees will approve and contribute to designs of the data processing staff, but they will not do the design work.
- 4. <u>Compatibility and Standardization</u>. Effort will be expended to assure that the data that are part of the various systems and sub-systems are compatible. This refers not only to record size and frequency of recording, but that the classification and coding systems are interpreted uniformly by all participating schools. It will be necessary to standardize certain input/output formats and frequency of input.
- 5. <u>Confidentiality</u>. Storage of student and employee information in electronic form and the ease with which it can be reproduced, can create opportunity for abuse. Systems design efforts will carefully take into account the establishment of proper <u>system</u> safeguards to minimize these hazards.

C. Curriculum Development

The earlier portion of this application indicated that several instructional uses-technical committees should be formed, including the four involving subjects, i.e., mathematics, social studies, business education and science.

These committees would be responsible for guiding the efforts of the staff consultant and in some cases actually preparing drafts of teacher guides and allied materials. However, the staff consultant will have over-all responsibility to provide leadership to the committee so that the following tasks are successfully executed:

- Curriculum planning, including an adequate survey of the field outside the Twin Cities Metropolitan Area and utilization of resource personnel from higher education, industry and other appropriate sources. As large a percentage of the participating district teachers as possible will be involved in the planning.
- 2. Writing of teacher guides, development of computer programs where necessary and preparation of appropriate materials.
- 3. Development and implementation of comprehensive inservice education programs for teachers.
- 4. Field testing of curriculum in appropriate pilot schools.
- 5. Evaluation of curriculum, including completion of initial modifications.
- 6. Implementation of computer asisted instruction curriculum materials on a broad scale.

D. In-Service Education

Reference has been made to the in-service education programs that should be developed in connection with curriculum. In addition, specific seminars, workshops, courses, etc., should be established for various levels of school personnel. Certain of these in-service programs will be designed for persons unexposed to the subject matter; others will be designed for the moderately exposed. Still other programs will be developed for specific groups of school personnel as follows:

- 1. Superintendents and Assistants or Directors
- 2. Secondary Principals and Assistants
- 3. Elementary Principals and Assistants
- 4. Directors of Business Affairs
- 5. Subject Consultants
- 6. Teachers
- 7. Directors of Health Services
- 8. Directors of Transportation
- 9. Directors of Food Service
- 10. Librarians
- 11. Directors of Audio-visual
- 12. Selected Secretarial/Office Personnel
- 13. Coordinators of Education Information

Emphasis will be given in such in-service programs involving new data processing services to:

- 1. Adequate explanation of new procedures and why they should be followed.
- 2. How to interpret information and action that should be taken. Few persons will make significant use of information if they are not trained to interpret it and know how to take the appropriate action. In some instances more time will have to be spent on action techniques than on interpretation.

In connection with in-service education programs and the continued successful operation of any data processing services, written procedural manuals must be available and in a language and illustration easily understood by those who must originate and interpret information. Selected elements of these procedure manuals should be placed in a form that lend to visual display in an in-service education program.

E. Considerations in Selection of a Manufacturer and Supplier.

At least the following matters will be taken into account with respect to manufacturer's services:

- 1. Availability of back-up hardware for program testing and provision of operating services;
- Extent of educational programs available for various personnel;
- Quality and understanding of educational problems exhibited by manfacturers' personnel;
- 4. Quality of maintenance services;
- 5. Amount of systems design and programming assistance that the manufacturer will provide;
- 6. Contract terms, including availability of educational discounts.

F. Hardware

1. On Line Systems. While the initial configuration of on-premise hardware is indicated as being of an off-line variety, it is anticipated that it would be modified within a few months of installation to include a capability of handling multiple communication lines and appropriate terminals. Initially such a system would not be intended to handle routine data transmission between individual school buildings and the data center, but rather the Appropriation and Budgetary Accounting sub-system would require an inquiry system with respect to account status. In the early and middle 70's, it is likely that technological refinements and cost reduction of hardware will make a timesharing system more practical for this project. The availability of such a system would have material benefit to all four of the major systems that are the subject of this application, particularly the guidance sub-system, all instructional uses subsystems, and the employee information sub-system.

The initial configuration has both magnetic tape and direct (random) access capabilities. However, it is anticipated that most major permanent records would utilize magnetic tape rather than any other media of storage, at least initially.

 Optical Scanning. Both eighty column mark sense equipment and an optical page reader have been specified as a result of this study. Optimum advantage should be taken of their availability to minimize input cost with the various data processing services.

Summary on Personnel Requirements and List of Staff

Administration

- 1. Director of Administration Services
- 2. Assistant Director of Administration Services

Staff Consultants

- 1. Educational Research Consultant
- 2. Mathematics Consultant
- 3. Business Education Consultant
- 4. Social Studies Consultant
- 5. Science Consultant
- 6. Advance Computer Related Consultant
- 7. Materials Information Consultant

Systems/Programming

- 1. Systems Programming Manager
- 2. Systems Analyst
- 3. Programmers

Operations

- 1. Operations Manager
- 2. Miscellaneous Supporting Personnel

Services/Conversion Personnel

- 1. Services Coordinator
- 2. Conversion Coordinator
- 3. Assistants

PLANNING FOR SERVICE DEVELOPMENT

A. CPM Network

The Critical Path Method (CPM) is one of several network techniques that have been developed in recent times for project control. Attached is a CPM network developed for implementation of the coordinated data processing project.

Each circle represents the completion of the activity indicated on the line preceding it. When multiple dotted or solid lines precede the circle, all of those activities on that path can be completed. The numbers in the circles are simply activity identification. The number next to the activity lines represent the maximum duration or elapsed time available between start and completion of the activity in calender months.

Networks and allied schedules will be developed for each subsystem once the project is approved for implementation. Reporting systems for those net-works will be integrated with the personnel time reporting and cost accounting systems that will be developed as a part of implementing the project plans.

- B. Systems/Programming Personnel Schedule (See Appendix for detailed schedule)
 - 1. Estimating Man Months. The first step in establishing the schedule was estimating themman months required for each activity. Unfortunately, adequate data was not available to allow a high degree of accuracy in this task. However, the estimates are appropriate and necessary. They will be continuously revised as the project proceeds.

In the case of the Instructional Uses, it was assumed that fifty per cent of the systems/programming effort could occur after the initial implementation. Because Instructional Uses are highly undefined, the man-month estimates coud vary widely as plans are developed by the staff consultants. With most other sub-systems, it was assumed that only 25% of the systems/programming effort could occur after initial implementation of the sub-system.

2. Number of Personnel. It was assumed that the computer manufacturer would supply three persons for a total of fifty-four man months. It was also assumed that systems/programming personnel would have skills that could be utilized on an overlapping basis. A total of ten systems/programming personnel were assumed. Beginning in FY 1970, the schedule does not indicate a requirement for these numbers of personnel. It is quite likely, however, that new systems design and programming requirements will emerge, most significantly in instructional uses. In addition, widespread use of

communication based on data processing services will probably require considerable effort to place in operation.

Some variation exists in FY 1970 and 71 as to the total number of personnel required from month to month. We anticipated that this imbalance will be corrected by the project staff in the interim.

C. Activity Schedule. (See Appendix for complete 5 year activity schedule.)

The schedule sets forth several factors associated with the principal activities of this project. Duration and man months have the same meanings as indicated previously. Scheduled start date cannot be missed unless more personnel are made available in the period between start and completion or if the duration time is revised downward. Completion dates missed will have the effect of delaying subsequent activities of the project.



V. EMPHASIS

This program is innovative for the state of Minnesota and the Twin Cities Metropolitan Area. There is no other cooperative educational data processing group in the Twin Cities Metropolitan Area. It presents, for the first time in this area, the opportunity for districts to utilize data processing exclusively for the educational development of their students and the school district. It represents an opportunity for the larger and smaller districts to cooperate and work together for the development of their educational program. It is innovative because it enables a group of districts to determine from the outset the application of data processing for their particular needs.

This program is exemplary because the major features of the program have proven themselves to be highly successful in other parts of the country. The implementation of such a program in the metropolitan area would serve to demonstrate the assets of such a program to the rest of the educational community in Minnesota.

This program is adaptive because it will provide vitally needed educational services adapted to the needs of the local school districts. The needs of the school districts have been determined on a broad scale during the planning grant period. During the planning grant, visits were made to various educational data processing centers to develop the best possible plans for a total information system for Twin Cities Area school districts.

VI. PLANNING

At the very outset of the planning stage of this project, Α. an advisory committee was appointed to represent and offer advice on various facets of the total project. The advisory committee therefore included school personnel who would be able to identify educational needs, data processing manufacturers and service contractors who would be able to translate school needs into technical requirements and equipment capabilities. Business and school executives, who were users and/or providers of certain data services, discussed and evaluated the benefits that had been derived from their experience with data processing.

The advisory committee was comprised of the following members:

Mr. J. K. Haehlen, Supt. Orono Public Schools Long Lake, Minnesota

Mr. Jim Lindsay, Director Data Processing College of St. Thomas St. Paul, Minnesota

Dr. Douglas Anderson Dept. of Educ. Psychology University of Minnesota Minneapolis, Minnesota

Mr. Philip S. Taylor, Director The Science Museum of the St. Paul Institute St. Paul, Minnesota

Mr. Edward Zeigler, Director of Data Processing 3M Company St. Paul, Minnesota

Mr. James Henderson, Headmaster Blake School Hopkins, Minnesota

Mr. Robert Koenig Director of Methods & Research Super Valu, Inc. Minneapolis, Minnesota

Mr. Milt Ojala, Director Hopkins Modular Curriculum Project Mr. Andrew Hobart, Pres. Hopkins Public Schools Hopkins, Minnesota

Mr. Andrew Eckert, Bus. Mgr. Minneapolis Public Schools Minneapolis, Minnesota

Dr. John Bicknell Director of Research Minn. State Dept. of Educ. St. Paul, Minnesota

Brother E. Louis, Director Hill Christian Brothers High School St. Paul, Minnesota

Dr. Fred Rohde, Asst. Supt. White Bear Lake Public Schools White Bear Lake, Minnesota

Brother Joseph de La Salle St. Mary's College Winona, Minnesota

Mr. Tom Barrett, Director of Data Processing Bemis Co. Minneapolis, Minnesota

Mr. James Scamman Midwestern States Educational Information Project Minn. State Dept. of Educ. Minneapolis, Minnesota

St. Louis Park Board of Educ. St. Louis Park, Minnescta

(Copies of letters indicating committment from advisory committee members may be found in the Appendix.)

B. In addition to the services provided by the advisory committee for this project, a special effort was made to personally contact and interview school personnel on-the-job. Four representative schools were singled out for a pilot study. Three of these schools were public (Bloomington Public Schools, St. Anthony Public Schools, and White Bear Lake Public Schools), and one was non-public (Hill High School, operated by the Christian Brothers). Members of the project planning staff went to these four schools and conducted extensive interviews with administrators, teachers, counselors, librarians and other personnel in an attempt to discover how data processing could aid them in their task areas and the extent to which these schools were utilizing data processing services.

On the basis of information and advice provided by the advisory committee, interviews in the pilot schools, and the professional assistance of systems designers and service contractors, a series of twelve questionnaires was developed. Each of these questionnaires covered one particular area in which the application of data processing might benefit participating public and non-public schools. The specific areas treated were the following: Guidance/Research, Elementary Student Personnel, Secondary Student Personnel, Library, Audio-visual, Health Services, Instructional Uses, Transportation, Census, Personnel Records, and Business Office Functions (e.g. appropriation and budgetary accounting, property records, accounts payable, payroll, requisition/ inventory systems, purchasing, food service, activity fund accounting, etc.). (See Appendix for sample questionnaires.)

The questionnaires presented a detailed outline of the various functions that data processing might provide within each of these areas. The questionnaires were mailed to all participating public and non-public schools in the Twin Cities area that chose to participate in the planning study. Schools were asked to examine prospective educational data processing services and, in light of the individual needs of their schools and districts, to rate each of the proposed services as it would be most beneficial to them.

With the return of the questionnaires, the planning staff summarized the results and composed a new questionnaire that contained information on each of the areas treated. This general questionnaire, together with a summary of the results of each of the individual questionnaires, was mailed to the superintendents of the school districts participating in the project. The superintendents were asked to give an overall rating to the various service areas in relation to district-wide benefits.
In addition to the pilot interviews and the data collected from the questionnaires to school personnel and superintendents, the planning staff also conducted a series of in-service question/answer seminars at the University of Minnesota during June, July, and September. These seminars were attended by hundreds of local school personnel. The whole data processing project was explained, individual areas were elaborated upon, and experts in the use and/or provision of educational data services were on hand to answer questions.

Proceeding concurrently with the above activities to discuss and assess educational needs with school personnel, the project staff also made numerous contacts with commercial data centers in the Twin Cities area that were currently providing some data processing services to metropolitan area schools. The commercial centers contacted were:

> Scientific Computers, Inc. Data Mangement, Inc. Service Bureau Corporation Control Data Corporation

Members of the project staff also visited the sites and consulted with the personnel of the following organizations, which were providing data processing services for schools:

> New England Educational Data Systems (NEEDS) Cambridge, Massachusetts

Oakland Intermediate School District Data Center Pontiac, Michigan

Board of Cooperative Educational Services Buffalo, New York

Broward County, Florida

Dade County, Florida

Hillsborough County, Florida

Florida State Department of Education, Tallahassee

Santa Clara Regional Center California

Ventura Regional Center California

Memphis Public Schools Memphis, Tennessee

Iowa Educational Information Center Iowa City, Iowa

Sacramento Regional Center California

Certain of these organizations also sent representatives to the Twin Cities to confer with the project planning staff about the feasibility of what was being planned and the problems that would most likely be encountered on the basis of their own experience in having developed similar systems.

Mr. William English, of the Educational Data Processing Center at Broward County (Ft. Lauderdale), Florida, visited in September of 1966. Mr. Jack Totheroh, of the Ventura, California, Regional Educational Data Processing Center, met with the advisory committee and project personnel the same month.

In November, Dr. Justin Prentice, Deputy Superintendent of the Board of Cooperative Educational Services in Buffalo, New York, visited the Twin Cities to consult with planning project staff and school district personnel.

- C. To make certain that the project properly took into account other data processing developments affecting schools in the state of Minnesota, project personnel maintained contact with representatives of the Information Systems Contractor at the Minnesota State Department of Education (ARIES Corp.), Dr. James Scamman of the Midwest States Education Information Project, and Mr. Harlan Sheely, Consultant in Data Processing, Minnesota State Department of Education.
- D. The entire planning phase of the project that is being presented here was financed by an ESEA, Title III grant, to the amount of \$56,225.00. This planning grant, OEG-3-6-00239-0340, was applied for and obtained by the Suburban School Services Joint Board, 5701 Normandale Road, Edina, Minnesota, 55424.
- E. Monies for this program will provide a totally integrated system of data processing services for the participating districts and their pupils. These monies will provide initial staff services including the leasing of supporting equipment and hardware for the implementation of the educational data processing system. It should be noted that while these monies will be used to support the total program they are not the exclusive monies being applied to the educational data processing project. Participating districts will be contributing an increasing percentage of the funds needed to develop and maintain the project as the program develops during the first three operating years.

Services which will be provided through this program will be:

- 1. Business Office including Teacher and other personnel
- 2. Pupil Personnel
- 3. Attendance and Census
- 4. Instructional Services

Included in the allocation of funds for personnel will be those personnel directly involved in the development of programs such as curriculum area consultants, systems analysts, technicians for data processing, and supporting clerical and administrative staff and equipment.

F. Federal Support will be terminated at the end of a three year period. The termination of this support is provided for by the assumption of the entire cost of the total operation by the participating member districts at the end of the three year period. Though the total amount of federal funds requested does increase during the second year, the percent of the total cost supported by the participating districts also increases. School districts assume a larger service fee with each succeeding year on a per pupil basis

		% of Support
Fiscal 1968		for Program
Service Income	\$142,500	32%
Federal Funds	307,328	68%
Total Expenses	449,828	100%
Fiscal 1969		
Service Income	430,000	56%
Federal Funds	339,234	44%
Total Expenses	769,234	100%
Fiscal 1970		
Service Income	605,000	64%
Federal Funds	336,814	36%
Total Expenses	941,814	1.00%
Fiscal 1971		
Service Income	965,000	100%
Federal Funds	none	0%
Total Expenses	946,000	100%

It should be noted that the funds requested for this program will enable it to establish services and lease hardware critical to the development of this program. Funds are intended to serve solely for the intital establishment of the project. (Please see five year forecast of expenses (1967-1972) in Appendix.) G. Over a period of the past few years individual districts in the Twin Cities metropolitan area have utilized data processing services provided by commercial data processing centers. Some of the services which school districts are utilizing are: Scheduling and Mark Reporting, Census, Payroll, Central Stores Inventory, and Appropriation and Budgetary Accounting. While the number of school districts using each of these services varies, the number of school districts involving themselves in data processing indicates a strong interest in the field and its application to education. The non-public schools seem to indicate no less an interest.

Results of the planning study are listed below. It should be noted that no single commercial data center served a majority of the school districts and some districts elected to utilize more than one commercial center according to the services the district desired.

At this point it is important to emphasize that there has been no cooperative data processing efforts on a wide scale nor have there been federal funds involved in the development of the data processing services now in existence in the participating school districts.

1. Summary of Present Utilization of Automatic Data Processing

During the course of this study, it was apparent, in our opinion, that most school systems had an exceedingly high level and enthusiastic interest in using or extending their use of data processing services. The Minneapolis and St. Paul school systems were already utilizing electronic computers. The Robbinsdale School system was utilizing punched card equipment or electronic computers on their premises. Many of the other schools, however, were making extensive use of commercial data center services, principally for secondary student scheduling and mark reporting. Below is a summary of the utilization of commercial data center center services for those schools in the study. Excluding Minneapolis, St. Paul, Robbinsdale and the Catholic parochial schools (excepting the six that participated in the study), the total student population of the school systems participating in the study is (1) K - 6 grade/129,768; (2) 7 - 12grade/89,957. Total student population is 219,725. Total certified personnel were 9,601 and 3,763 non-certified personnel for a total personnel count of 13,364. The Catholic parochial school population in the metropolitan area is (1) 1 - 8 grade/58,008; (2) 9 - 12 grade/13,458. Total student population is 71,458. While data are variable, it appears that non-public school utilization of data processing services is not higher than that of public schools.

a. Scheduling/Mark Reporting.

Presently approximately 41,000 secondary students are covered by scheduling and/or mark reporting services provided by commercial data centers. Twenty school systems out of 45 are utilizing these services. Many of the school systems indicated that substantial improvements were needed in the quality and scope of those services presently being provided.

2. Census.

Presently five school systems out of the 45, or approximately 11%, are utilizing commercial data centers in this connection.

3. Payroll.

Presently fewer than five school systems are utilizing data center services in this connection.

4. Central Stores Inventory.

At least one school out of 45 is utilizing this data center service.

5. Appropriation and Budgetary Accounting.

Presently at least one school out of 45 is utilizing this service.

6. Test Scoring/Analysis.

While many of the standardized tests are machine scored by the publisher, a large number of standardized tests are hand scored. None of the 45 schools are machine scoring their standardized tests nor are any teacherprepared tests being machine scored.

7. Instructional Uses in Mathematics.

Presently some 9% of all the secondary mathematics teachers are utilizing computers in connection with their classroom or student co-curricular activities. Approximately 21% of all teachers were considered qualified by the respondents to undertake the abovementioned activities.

8. Instructional Uses in Business Education.

Approximately 18% of the school systems had a key punch installed for business education purposes. Some 23% of the schools had courses devoted to teaching principles and uses of punched card equipment. About 7% of the schools had a separate course or devoted a portion of present curricula to computer programming.

No other uses than the above were indicated by the schools in connection with this study.

PARTICIPATING SCHOOLS IN THE COORDINATED DATA PROCESSING SERVICES PLANNING GRANT STUDY (1965-66)

<u>Group 1</u> (Large - 3,001 - 8,000 Secondary Enrollment)

Anoka, Bloomington, Edina-Morningside, Hopkins, Moundsview, North St. Paul, Richfield, Roseville, St. Louis Park, White Bear Lake.

Group 2 (Medium - 1,301 - 3,000 Secondary Enrollment)

Burnsville, Columbia Heights, Forest Lake, Fridley, Minnetonka, Mound, Osseo, South St. Paul, Spring Lake Park, Stillwater, Wayzata, West St. Paul.

<u>Group 3</u> (Small - 1 - 1,300 Secondary Enrollment)

Brooklyn Center, Centennial, Chaska, Farmington, Golden Valley, Inver Grove, Lakeville, Mahtomedi, New Prague, Orono, Prior Lake, Rosemount, Shakopee, St. Anthony, St. Francis (Isanti), Waconia.

Group 4 (Parochial - 1 - 3,000 Secondary Enrollment)

Hill High School, Incarnation, Nativity, Sacred Heart, St. Bernard's, St. Margaret's.

Group 5 (Very Large - 8,001 or over)

Minneapolis, Robbinsdale, St. Paul

(Minneapolis and St. Paul are not included in the analysis at this time)

BENEFIT RATING - GUIDANCE/RESEARCH

Potential Service	A11	Groups	Gro	up 1	Gro	up 2	Grou	р 3	Gro	up 4	Gro	upʻ 5
Potential Service	Gross Points	Ranking	Gross Points	Ranking	Gross Points	Ranking	Gross Points	Ranking	Gross Points	Ranking	Gross Points	Ranking
Follow-up Studies	348	1	90	1	102	. 2	103	4	41	5	<u> </u>	- 1
Scoring and Analysis of Standardized Tests	344	2	81	2.	82	4	120	.2	59	1	2	14*
Group Counseling Podentification	308	3	46	11	73	ur 9	135***	1	54	2	0	16,5
Withdrawal Studies and Detection	278	4	64	3	105	1	82	10	21	15	6	9
Analysis of Special Students	270	5 .	63	4.	87	3	72	13	40	8	8	6
Over/Under Achievement Analysis & Detection	262	6	56	6	67	12	90	7	40	8	9	4
Post High School Education Index	261	7	59	5	68	11	113	3	19	16	2	14
Student Profile - 6th Grade	257	8	53	7	. 71	10	86	· 8	41	5	6	9
Standardized Test Analysis	251	9	49	10	80	6	70	14	46	3	6	here et and an and a second seco
Analysis of Post High School Education/Voca- tional Selections	241	10	43	12	63	13	94	6	32	11	9	4
Other Correlations	240	11	52	8	81	5	68	15	29	12	10	2**
Graduation Requirement Analysis	239	12	51	9 .	74	8	85	9	25	14	4	12
Declining Achievement Analysis	237	13	31	17	75	7	81	11	41	5	9 -	4
Financial Aid Index	216	14	42	1.3 ·	44	16	102	5	26	13	2 -	14
Transfer Student Analysis	206	15	36	14.5	. 57	14	67	16	40	8	6	9
Vocational Interest Analysis	201	16 -	36	14.5	51	15 [.]	75	12	33	10	6	9
Other Services	111	17	38	16	10	17	50	17	13	17	0	16.5

* Note the low ranking by Robbinsdale as compared to the other groupings. ** Note Robbinsdale's specific comments on other correlations since they ranked this second. ***Note the high number of gross points for these seven schools and their ranking as compared to groups 1 and 2.

B) Benefit Rating - Elementary Student Personnel Services

6-0500	A11	Groups	Gro	up 1	Gro	up 2	Gro	up 3	Gro	oup 4	Gro	up ,5	натинарь
	Gross		Gross		Gross		Gross		Gross		Gross		
Potential Service	Points	Ranking	Points	Ranking	Points	Ranking	Points	Ranking	Points	Ranking	Points	Ranking	
Annual Attendance				-		N		•	•				
Report	415	1	122	1	102	2	165	1	16	15	10	4	
Periodic Attendance	3												
Accumulation	323,5	2	100	2 .	74.5	4	120	3	21	10	8	5	
Machine Scoring of		· · · ·											;
Stand, Tests	308	3	65	4	118	<u> </u>	99	7	26	8	0	18	1
Class Lists	247	4.5	64	5	40	· 12	111	4	29	4,5	3	11	
Scheduling of Tchr												an a	
Parent Conference	s 247	4.5	59	6	60	7	103	5.5	22	9	3	11	
Kdgrtn Roundup			*-									,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Mailing	244	6	49	8	49	11	123	2	5	17.5	18	2	
Family/Stu. Dir.		ġĸġĸĸĸĊĸĔĊŦĸĊĊĸĸĸĊŦŔĊŔŔŎĊĸĬĊŔĸŔŢŦĊĸĊĔŔĸĸĸŎŢĊĬĊŔŎ	an a				an a		n timbugantu ngané kating tang tang ta		94999999999999999999999999999999999999		A000
Locater File	230	7	48	9	59	8	88	9	31	2	4	8	
Bus Routing	225	. 8	. 56	7	51	10	103	5.5	0	20	15	3	HOMESON
Boundry Line	, , ,	@##@##\$\$\$~?#\$\$\$?### #?#\$#?#?#?#?#	annen setter an			en af 10,000 inne agrice (from the same from the same from the same same same same same same same sam			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	······································	**************************************	₩Ţ₽₽₽ŢŦ₩₩₩Ĭ₩₩₩₩₽₽₽₩₩₩₽₽₽₩₩₩Ţ₩₩₩Ţ₩₩₩Ţ₩₩₽Ţ₩₩Ŏ	hűigjint.
Determination	204	9	80	3	63	5	36	18	5	17.5	20	1	
Stud/Family Infor.		0145-12 ⁻⁰⁰ 00-0040-0020-0040-0040-0040-0040-004	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-						n y 2000 na shekara ka			100 million
& Background	187	10	41	12	26	18	89	8	28	6	3	11	
Reading Pattern					-								
Inventory	178	12	29	15	36	13	79	10	30	3	4	8	
Student/Class									•				Construction (Construction)
Profile	178	12	46	10	20	20	67	12.5	44	1	1	14	_
Mark (Grade)											÷ · ·		
Reports	178	12	35	13	62	6	54	15	27	7	00	18	
Mark Label for		k			•				14 - A				
Cumulative Rec.	173	14	43	11	52	9	47	16	29	4.5	2	. 13	
Envelope Addres-													
sing (Labels)	152	15	28	16	<u>, 32</u>	15.5	73	<u> 11 ·</u>	14	16	5	6	
Tchr Mark		-							•				Manager 200
Distributions	142	16	24	18.5	32	15.5	67	12.5	19	12	0	18	
Parent Teacher					1	•							
Opinion Surveys	121	17.5	31	14	27	17	42	17	17	13.5	4	8	
Mach Scoring of		-											
Tchr Prep. Tests	121	17.5	12	21	33	14	56	14	20	<u> </u>	. 0	18	
Other Services	102	19	24	18.5	78	3	0	21	0	20	0	18	
Beh. Trait Posting	99	20	25	17	24	19	33	19	17	13.5	0	18	-005-002
Bus Passes	34.5	21	15	20	1,5	21	18	20	0	20	0	18 .	

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	All G	roups	Gro	up l	Gro	up 2	Gro	up 3	Gr	oup 5
	Gross		Gross		Gross		Gross		Gross	
Potential Service	Points	Ranking	Points	Ranking	Points	Ranking	Points	Ranking	Points	Ranking
Student Sectioning/										
Schedules	415	1	211	l	153	1	16	3	35	1
Mark (Grade) Reports	362	2	190	2	123	2	16	3	33	2
Annual Attendance	-				-			-		
Reports	299	3	150	3	102	3	16	3	31	3
Class Lists	252	4	130	4	80	4	12	7	30	4
Mark Label for	-	·	-	•		•			2-	~
Cumulative Records	200	5	117	5	64	8	8	12	11	10
Teacher Mark Distribu-		-								2.0
tion	191	6	100	6	66	6.5	6	16.5	19	7
Failure and Incomplete	-						Ū.	_000		
List	182	7	84	9	66	6.5	10	9	1 22	5
Honor Roll List	172	8	63	15.5	74	5	17	6	5 21	6
Periodic Attendance				-2-2	• ~	2		Ũ	S 2 2	0
Accumulation	163	9	83	10	62	9	10	9	ជូ ៤	٦7
Course Tally	160	10	77	11.5	55	11.5	16	3		-4
Student-Class Profile	155	11	91	8	53	1/	-6	16 5	<u>т</u> Н с	
Daily Absentee Lists	153	12	96	7	19	15	Ŕ	12		19 22 E
Behavior Trait Posting	140	13	68	14	56	10	6	16 5		ر .و ۲۱
Student Directory	132	14	77	11.5	37	20		20.0	· 1/	4
Departmental Mark						20	4	20	Au 14	0
Distribution	131	15	63	15.5	55	11 5	6	16 5	© . 77	76 5
Envelope Addressing	127	16	72	13	16	16 5		20.2		10.5
Conflict Matrix	122	17	62	17	36	21 5	16	20	od o	19
Student Activity Posting	113	18	5%	19	16	16 5	10	ך 16 ב	0 0 H 7	14
Locker Room Assignments	112	19.5	58	18 18	40	10°) 10	0	10.7	4 7 4	10.5
Reading Pattern)0	10	47	10	0	2400	g y	T5
Inventory	112	19.5	50	20	57	12	¢	10	o o	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Honor Point Computation	98	21	37	22	12	10	0	12	ដ	23.5
Class Rankings	80	22	10	21	42	17 27 E	10	9	× ×	14
Student I.D. Cards	77	23	36	22	22	~1.7	4	20	<u>д</u> 0	23.5
Teacher/Parent Opinion	124	~)	00	~)	20	23	0	24.5	no 5	19
Survey	60	21	33	21	75	25	0		Gr	
Historical Course Selec-		~~~	כנ	£4	~J	20	2	22	─ 0	23.5
tion Analysis	58	25	30	25	28	27	0	21 5	0	00 r
Other Services	29	26	25	26	4	26	0	~4.0 21.5	0	んう。う つろ ち

BENEFIT RATING - SECONDARY STUDENT PERSONNEL (JUNIOR HIGHS (7-9))

BENEFIT RATING--SECONDARY STUDENT PERSONNEL

RELATIONSHIP OF SECONDARY STUDENT PERSONNEL SERVICE TO TEST SCORING OF TEACHER PREPARED TESTS SERVICE FOR:

	A11 G	roups	Gro	oup 1	Gro	up 2	Gro	up 3	Gro	up 4	Gro	up 5
	Gross		Gross		Gross	******	Gross		Gross	and a second	Gross	ytmallondinadinities/arty-es/menta/
Potential Service	Points	Ranking	Points	Ranking	Points	Ranking	Points	Ranking	Points	Ranking	Points	Ranking
<u>A. Junior Highs 7-9</u>												
Secondary Student Personnel	3192	1	1687	1	1060	1	160	1	*	*	285	1
Test Scoring of Teacher Prepared Tests	808	2	413	2	340	2	40	2	*	*	15	2
B. Senior Highs 10- 7-12, and 9-12.	·12,											
Secondary Student Personnel	3685	1	990	1	870	1	1315	1	310	1	200	1
Test Scoring of Teacher Prepared Tests	960	2	195	2	330	2	285	2	150	2	0	2
C. Jr. and Sr. High Total Secondary	15 											
Secondary Student Personnel	6877	1	2677	1	1930	1	1475	1	310	1	485	<u>1</u>
Test Scoring of Teacher Prepared Tests	1768	2	608	2	670	2	325	2	150	2	15	2

*No Junior Highs Reported for Group 4.

POTENTIAL SERVICE	ALL (Gross Points	GROUPS Ranking	GRO Gross Points	UP 1 Ranking	<u>GR(</u> Groșs Points)UP 2 Canking	GROU Gross Points	IP 3 Ranking	GRO Gross Points	UP 4 Ranking	GROUP 5* Gross Points Ranking
BOOK PROCESSING	1148	1	305	1	348	1	415	1	80	1	
UNION CATALOGUE	725	2	200	2	230	2	255	4	40	5	
READING PATTERN INVENTORY	651	3	190	3	96	б	295	3	70	2	
STUDENT/CLASS PROFILE	589	4	140	4	84	5	315	2	50	4	
CIRCULATION CONTROL	477	5	65	5	112	4	240	5	60	3	
OTHER	210	6	0	6	130	3	80	6	0	6	

BENEFIT RATING LIBRARY - ELEMENTARY

* None reported at present

BENEFIT RATING LIBRARY - SECONDARY

POTENTIAL SERVICE	ALL (Gross Points	GROUPS Ranking	GRO Gross Points	UP 1 Ranking	GRO Gross Points	UP 2 Ranking	GRO Gross Points	UP 3 Ranking	GRO Gross Points	UP 4 Ranking	GRO Gross Points	UP 5* Ranking
BOOK PROCESSING	985	1	225	1	310	1	355	1	75	1	20	2
UNION CATALOGUE	830	2	190	2	235	2	335	2	40	3	30	1
CIRCULATION CONTROL	690	3	160	3	220	3	255	4	45	2	10	3
STUDENT/CLASS PROFILE	610	4	145	4	110	6	315	3	10	6	30	1
READING PATTERN INVENTORY	580	5	125	5	185	4	245	5	15	4	10	3
OTHER	340	6	90	6	140	5	95	6	15	5	0	6

*One school reporting - Robbinsdale

POTENTIAL SERVICE	ALL GROUPS Gross Points Ranking		GROUP 1 Gross Points Ranking		GROUP 2 Gross Ranking Points		GROUP 3 Gross Ranking Points		GRO Gross Points	<u>UP 4</u> Ranking	<u>GRO</u> Gross Points	UP 5 Ranking
BOOK PROCESSING	2133	1	530	1	658	1	770	1	155	1	20	2
UNION CATALOGUE	1555	2	390	2	465	2	590	3	80	4	30	1
READING PATTERN INVENTORY	1231	3	315	3	281	4	540	4	85	3	10	3
STUDENT /CLASS PROFILE	1199	4	285	4	194	6	630	2	60	5	30	1
CIRCULATION CONTROL	1167	5	225	5	332	3	495	5	105	2	10	3
OTHER	550	6	90	6	270	5	175	6	15	6	0	1

BENEFIT RATING LIBRARY - COMBINED** ELEMENTARY & SECONDARY

* Secondary Only - Robbinsdale Only

** It is necessary to note that the combined benefit rating reflects the emphasis of the elementary school particularly in the Reading Pattern Inventory.

BENEFIT RATING--SECONDARY STUDENT PERSONNEL (TOTAL SECONDARY--Jr. and Sr. Highs)

	A11 (Froups	Gro	oup 1	Gro	oup 2	Gro	oup 3	Gro	oup 4	Gro	up 5
	Gross		Gross		Gross		Gross		Gross		Gross	
Potential Service	Points	Ranking										
Student Sectioning/												
Schedules	766	1	313	1	264	1	123	1	22	6	44	1
Mark (Grade) Reports	671	2	283	2	204	2	117	2	24	3	43	2
Annual Atten, Reports	s 519	3	211	3	159	3	92	7	17	9	40	3
Class Lists	506	4	200	4	143	4	97	5	29	1.5	37	4
Conflict Matrix	405	5	154	7	105	12	116	3.5	14	13	16	13.5
Mark Label for Cumu-												
lative Records	403	6	171	5	111	9	78	10	23	4	20	10
Course Tally	395	7	156	6	114	8	91	8	13	17	21	9
Failure and Incom-												
plete List	387	8	145	8	116	7	81	9	14	13	31	5
Honor Roll List	376	9	114	14	129	5	94	6	9	22.5	30	6
Teacher Mark Dist.	361	10	142	9	109	10	71	12	12	19	27	7
Class Rankings	329	11	121	12.5	127	6	74	11	29	1,5	8	22
Stu./Class Profile	313	12	131	10	88	16.5	60	15	22	6	12	18.5
Periodic Attendance												
Accumulation	306	13	112	15	106	11	58	17	14	13	16	13.5
Daily Absentee Lists	302	14	128	11	99	13	52	20	14	13	9	21
Student Directory	298	15	121	12,5	72	21.5	60	16	22	6	23	8
Honor Point Comput.	296	16	84	19	93	15	116	3,5	19	8	17	12
Student I.D. Cards	293	17	65	23	64	23	44	23	9	22.5	11	20
Behavior Trait												
Posting	291	18	107	16	94	14	62	14	10	20	18	11
Departmental Mark												
Distribution	273	19	95	17	88	16,5	63	13	13	17	14	17
Envelope Addressing	250	20	93	18	77	20	55	19	13	17	12	18.5
Student Act. Posting	238	21	76	21	81	19	57	18	9	22.5	15	15.5
Locker Room Assign.	225	22	81	20	72	21.5	48	22	9	22.5	15	15.5
Reading Pattern												
Inventory	224	23	69	22	83	18	50	21	16	10	6	24
Teacher/Parent												
Opinion Surveys	159	24	45	25	58	24.5	36	25	14	13	6	24
Historical Course						•						
Selection Analysis	158	25	50	24	58	24.5	38	24	6	25	6	24
Other Services	48	26	34	26	4	26	7	26	0	26	3	26
	. •				-							

BENEFIT RATING--SECONDARY STUDENT PERSONNEL (SENIOR HIGHS 10-12, 7-12, and 9-12)

a na sana ana ana ana ana ana ana ana an	All G	roups	Gro	up 1	Gro	up 2	Gro	up 3	Gro	up 4	Gro	up 5
	Gross		Gross		Gross		Gross		Gross		Gross	
Potential Service	Points	Ranking	Points	Ranking	Points	Ranking	Points	Ranking	Points	Ranking	Points	Ranking
Student Sectioning/												
Schedules	351	1	102	1	111	l	107	1	22	6	9	6
Mark (Grade) Reports	309	2	93	2	81	2	101	2	24	3	10	1
Conflict Matrix	283	3	92	3	69	3	100	3	14	13	8	13.5
Class Lists	254	4	70	6	63	4	85	4	29	1.5	7	18.5
Class Rankings	249	5	81	4	61	5	70	10.5	29	1.5	8	13.5
Course Tally	235	6	79	5	59	6	75	7	13	17	9	6
Annual Attendance												
Reports	220	7	61	7.5	57	7	76	6	17	9	9	6
Failure & Incomplete		•				·	, -			2		-
List	205	8	61	7.5	50	10	71	9	14	13	9	6
Honor Roll List	204	9	51	10	55	8	80	5		22.5	ģ	6
Mark Label for Cumu-			2			-		-	,	~~~~	,	Ũ
lative Records	203	10	54	9	1.7	12	70	10.5	23	1.	9	6
Honor Point Compu-			24		- -		10	2009	~	~*	,	Ũ
tation	198	11	1.7	11	50	10	73	8	19	\$	Q	6
Teacher Mark	-/-		-y.		20	20		U		U		U
Distribution	170	12	1.2	13	13	17	65	12	12	10	¢	12 5
Student Directory	166	13	1.1.	12	25	ביר 7 ר	56	17.5	22		0	±5.5
Student/Class Profile	158	1/	20	1/	25	<u>ר ב</u> קר	51	14.7	22	6	7	10 E
Behavior Trait			40))		24	τo	22	0	1	10.7
Posting	151	15	20	15	28	15	56	7/5	10	20	ø	10 6
Daily Absentee Lists	1/0	16	30	16 5	50	10		14°2	10	20	0	13.5
Periodic Attendance	nin frife /	70	200	10.7		TO	44	2 ه ل ک	4.44	51	9	6
Accumulation	1/3	77	20	10 5		10	10	10 F	7,	10	\$	30 7
Departmental Mark	فريكت	- 1	~7	10.)	Lydip	CT.	40	72.2	14	ĘT	8	13.5
Distribution	1/2	10	22	76 5	22	10 6	F(7)	10	10	7 67	~	74 -
Student Activity	-the first of the second s	70	うん	10.5	22	17.0	27	51	ور	17	7	18.5
Posting	125	10	22	21	25	70	~7		0	0 0 <i>x</i>	4	
Euvelone Addressing	102	19	~~ 21	22	<u>ככ</u> דכ	17	51 77	17.5	9	22.5	8 ~	13.5
Student T D Corda	110	20	20	22 10 E	10	<u>جل، ک</u>	51	17.5	51	17	.7	18.5
Locker Boom Aggian	112	Sout-	27	10.7	13	21.5	44	21.5	9	22.5	6	23
monte	112	22	00	20	07	07	10		~		,	
Beading Pottom	<u>כדד</u>	KK.	25	20	21	25	48	19.5	9	22.5	6	23
Throntom	110	00	10	01	~~				- /			
Historical Course		23	19	24	29	24	42	23	16	10	6	23
Coloction in last	100	0.1	00	<u> </u>	00			_				
Derection Analysis	T00	24	20	23	30	23	38	24	6	25	6	23
1ea./Par. Upin. Surv.	99	25	12	25	33	19.5	34	25	14	13	6	23
Uther Services	119	26	9	26	0	26	7	26	0	26	3	26

Benefit Rating - Health Service

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. 1	Gross	Ranking	Gross	1967 -	Gross		Gross		Gross		Gross	
	Points /	Total	Points	Ranking	Points	Ranking	Points	Ranking	Points	Ranking	Points	Ranking
Potential Service	Total Groups	Total Groups	Group 1	Group 1	Group 2	Group 2	Group 3	Group 3	Group 4	Group 4	Group 5	Group 5
Permanent Health						1						นอยารรรม ครัวที่ช่างที่ได้สุขามอรูกแอรงมีด
Records	1095 .	1	255	1	280	2	450	1.	85	2	25	1.5
Transition	an fan fan skarte fan skrieter f	and and an	-									
Tost Droconsing	1010		0.05	0	070	0	275	0 ·E	105	-	2	7 5
Test Trucessing	1010	۷.	235	4	270	, , , , , , , , , , , , , , , , , , ,	1 3/3	2 e J	103 .	4	25	1.7
Ear, Eye, and	20. 10. 10. 10. 10. 10. 10. 10. 10. 10. 1		1			-	Constitution of the second				a and a second	
Dental Exam.	915	3	150	4	310	1	375	2.5	65	3	15	3.5
State Deports	805	1	1210	2	225	1	280	1	1.5	7.	1175	25
Prace Weborrs			210	5	L. L. L.	7	200					
Other Services	265	5	140	5	85	5	20	5	0	5	20	5
Andre and Pathamata Andre and a state of the			II .			j					<u>[</u>]	
Dental Exam. State Reports Other Services	915 805 265	3 4 5	150 210 140	4 3 5	310 255 85	1 4 5	280 20	4	45 0	4	15 15 20	3.5

ann air ann an ann ann ann ann ann ann ann ann	A11 (Groups	Grou	p 1	Grou	o 2	Group	3	Group) <u>L</u>	Grou	p <u>5</u> *
	Gross		Gross		Gross		Gross		Gross		Gross	
Potential Service	Points	Ranking	Points	Ranking	Points	Ranking	Points	Ranking	Points	Ranking	Points	Ranking
Accounts Payable Appropriation and	574	2	129	2	167	2	211	2	60	2.5	7	7
Budgetary Control	456	3	122	3	131	3	151	3	35	5	17	1.5
Payroll	763	1	202	1	231	l	248	l	65	1	17	1.5
Property Records	241	8	65	6	76	5	83	8	10	10.5	7	7
Activity Fund												
Accounting	284	5	46	11	60	8.5	116	4	60	2.5	2	13
Preventative Main-												
tenance scheduling	181.5	11	50	10	46.5	12	57	12	25	8	3	11.5
Maintenance Cost												
Accounting	297	4	80	4	60	8.5	99	6	50	4	8	5
Inventory Control	266	7	78	5	67	7	101	5	10	10.5	10	3.5
Purchasing	268	6	54	9	91	4	91	7	25	8	7	7
Test Book Inventory	229	9.5	5 6	8	70	6	75	9	25	8	3	11.5
Food Service-Perpetual	_											
Inventory	159.5	12	34	12	55	10	61.5	11	5	12	4	10
Food Service Cost							-		-		·	
Accounting	229	9.5	64	7	50.5	11	74.5	10	30	6	10	3.5
Other**	47	13	20	13	0	13	22	13	0	13	5	9

BENEFIT RATING - BUSINESS OFFICE

*Robbinsdale Only.

**Other. In the benefit rating, 47 points were allocated by the total group of respondents to "other potential services."

	All Groups		Gre	Group 1		Group 2		Group 3		Group 4*		oup 5**
	Gross		Gross		Gross			Gross		Gross		Gross
	Rank	Points	Rk	Points	Rk	Points	3 Rk	Points	Rk	Points	Rk	Points
Bus Routing	1	1505	1	425	1	500	2	455	1	100	1	2.5
Transportation Report	2	1450	2	370	2	285	1	570	5	0	5	0
Bus			nadard readhrain									
Maintenance	3	445	4	95	3	205	4.5	110	5	0	1	25
Bus Passes	4	365	3	110	4	100	3	155	5	0	1	25
Other	5	145	5	0	5	10	4.5	110	5	0	1	25

Benefit Rating Sheet All Groups

*Hill High School only reporting

****Robbinsdale only reporting**

	Total	otal Groups Group 1		Group 2		Group 3		Group 4		Group 5		
The second s	Gross		Gross		Gross		Gross		Gross		Gross	
	Points	Rank	Points	Rank	Points	Rank	Points	Rank	Points	Rank	Points	Rank
Materials Catalogue	1780	1	470	1	500	1	610	1	170	1	30	1
Equipment Property Records	775	2	180	2	250	2	248	2	82	3	15	3
Equipment Maintenance Records	605	3	135	3	190	3	202	5	63	4	15	
Catalogue of Resource Personnel	481	4	56	5	90	5	235	4	90	2	10	4
Catalogue of Field Trips	: 439	5	54	6	75	6	245	3	55	5	10	
Other	285	6	105	4	120	4	60	6	0	6	20	2

BENEFIT RATING SHEET - AUDIO-VISUAL

*Robbinsdale only reporting

	Total	Groups	Gro	up 1	Grou	1p 2	Group 3		Group 4		Group 5	
Potential Service	Gross Points	Ranking										
Business Office	749	1	188	1	216	1	245	1	75	1	25	1
Secondary Students Personnel	525	2	144	2	127	3	224	2	15	7.5	15	2
Instructional Uses	449	3	98	4	173	2	158	3	15	7.5	5	7.5
Guidance and Research	390	4	108	3	85	5	132	7	60	2	5	7.5
Personnel Records	376	5	97	5	97	4	149	5	28	4	5	7.5
Elementary Student Personnel	339	6	78	6	79	6	145	6	25	5	12	3
Test Scoring	329	7	64	8	76	7	151	4	33	3	5	7.5
Census	283	8	69	7	65	8	129	8	10	9.5	10	4.5
Library	230	9	43	10	59	9	109	9	16	6	. 3	10.5
Transportation	218	10	48	9	48	10	102	10	10	9.5	10	4.5
Health Service	161	11	30	12	30	12	91	11	8	11	2	12
Audio Visual	143	12	33	11	39	11	63	12	5	12	3	10.5
Other	8	13	0	13	6	13	2	13	0	13	0	13

BENEFIT RATING--SUPERINTENDENTS' QUESTIONNAIRE

VII. PARTICIPATION OF NONPUBLIC SCHOOL CHILDREN

From the initiation of the planning phase of this project, a major effort was made to thoroughly involve the non-public schools of the metropolitan area. Personnel from these schools were appointed to the planning advisory committee. One of the non-public schools was included in the group of four schools selected for the pilot study. Six schools chose to participate in the planning study from the non-public school population and were included in the planning survey and data collection obtained through the twelve questionnaires. The Superintendent of Bureau of Education of the Archdiocese of St. Paul-Minneapolis was kept closely informed of developments in the various stages of the project and was asked to respond to the questionnaire prepared for the Superintendents of participating school districts. Numerous representatives of the non-public schools attended the in-service seminars designed to explain the potentials of data processing for education. Through the Archdiocesan Superintendent of Schools, Msgr. Roger Connole, all the non-public Schools were provided with copies of the final report of the planning phase of the project and were invited to participate, individually or collectively.

However, the extent of involvement of the non-public schools in the project is very vague. Contact with Msgr. Connole, the Archidiocesan Superintendent, indicated that his office does not command the financial resources necessary to commit the Archdiocesan school system as a whole and involve all of the schools in the project. Nor, he said does his office have the authority to cause all of the schools to become involved at their own expense.

Non-public schools (over 130 units) in the metropolitan area are operated autonomously. Elementary non-public schools are controlled by individual parish churches and a committment to the project on their part would necessitate the approval of individual pastors and/or parish finance committees. Secondary non-public schools are for the most part privately owned by religious comminities of men or women (e.g. Christian Brothers, Sisters of St. Joseph) and a committment on their part would involve an approval by the directors of the larger community, or the directors of individual schools, acting singly or collectively (i.e. where the community in question operates several secondary schools in the metropolitan area, as do the Christian Brothers and the Sisters of St. Joseph).

Contact with several representatives of these two religious groups indicated that the groups in question were not at the time envisioning any involvement in the project.

All of the non-public school personnel that were contacted were very much in agreement that the application of data processing would benefit their schools in many ways. The chief obstacle

to their involvement was, however, two-fold: first, there is a lack of central organization and coordination on the Archdiocesan level as a whole. The central office of the superintendent has no control over individual schools, and hence any collective effort on the part of schools must be a voluntary endeavor intiated by the interested participants. Secondly, there is a lack of funds. Most of the non-public schools feel at the present time that they would not be able to assume the financial costs that would be made necessary once the Federal Government withdrew itself from the support of the project. Nor, because of the lack of organization among schools, do they foresee any way in which the non-public schools could organize themselves to assume the financial burden cooperatively. There is, as was indicated, a chance that several private secondary schools operated by the same religious organization might eventually work together to participate in the project.

The major criterion of the successful achievement of the project's objectives will be the ability of the cooperative organization to maintain its present members and to attract new ones. The minimum criterion of success will be to meet the membership schedule for participation as described below:

1967	Basic Membership of	110,000		
1968	40,000 new members		К —	12
1969	30,000 new members		К –	12
1970	10,000 new members		K -	12
1971	10,000 new members		K -	12
1972	5,000 new members		К –	12
Total	205,000	Students	К —	12

The second major criterion of success will be the development of services for participating districts in close alignment with the projected schedule. This schedule will be adhered to, barring any major changes in the amount of revenue and/or hardware available for the establishment of these services.

The third major criterion of success will be the ability of the cooperative data processing system to meet the unique needs of each school district in an increasingly effective manner. While it is not possible for such a venture to meet all needs immediately, it is to be expected that these will be an improvement in the services rendered in terms of timeliness and effectiveness.

The current range of data processing services being rendered to participants by commercaial concerns will be determined on a district by district basis to provide base line data for this effectiveness study. Follow-ups on a year-by-year basis related directly to each district in terms of services rendered and time involved will be considered.

An additional consideration must be made in terms of the rate that districts prepare themselves to take part in actual services rendered by the TIES unit. The effectiveness of the preparation for data processing may be judged in terms of time, services and personnel and cost according to size of district.

This evaluation will be conducted on a year by year schedule, performed by an outside evaluation unit which will involve both the data processing center staff and the individual participating districts.

In addition to the overall evaluation proposed above, an evaluation will be conducted by the personnel from participating school districts, the technical committees, and the project staff in relation to specific objectives and parts of the Total Information for Educational Systems. In addition to those individuals involved through the above groups, members of the Minnesota Association for Educational Data Systems and Association for Educational Data Systems will be involved in the evaluation of the total TIES program and any specific aspects in which their particular skills and interests may be utilized. Those objectives which the above personnel will evaluate will be:

- 1. The overall effectiveness of the data processing program to participating public and non-public school districts.
- 2. The four subsystems, their policies and operation.
 - a. Administration/Financial Information
 - b. Student Information System
 - c. Instructional Uses and Computer Assisted Instruction
 - d. Materials Information System
- 3. The preparation of information in an accurate and effective form.
- 4. The dissemination of information to those needing it.
- 5. The preparation of information for state, other educational agencies and school boards.
- 6. The preparation and dissemination of needed but previously unavailable information.
- 7. The improvement of educational research at a local district and school level.
- 8. The effectiveness of TIES staff in communicating with and serving the needs of the participating districts.
- 9. Access and satisfaction of individual districts needs in computer time.
- 10. The development and functioning of a continuous inservice program related directly to the needs of the individual districts and their employees for updating skills, teaching new skills and developments and communicating new applications.

While the above relate to the objectives of the TIES program, there will be other needs which will grow from the project that will necessarily be evaluated on an individual district and total system basis. The responsibility for this on-going evaluation will rest with the TIES staff and the individual district and the governing board. The information employed to acquaint others with the work of this project are numerous and it is anticipated that as many of them as possible will be made use of.

In the process of planning the project, many communication channels were established and will continue to be used throughout the course of the endeavor. The project planning staff has kept participating schools and other interested persons continually informed by means of news circulars, progress reports, conferences and seminars, and the publication of a final planning stage report with an accompanying set of visuals to illustrate the major emphases of the report.

Intermittent communications of this type (circulars, progress reports etc.) will continue to be used throughout the course of the project.

A very important item in the dissemination program will be a complete system of in-service education. The personnel descriptions listed in this proposal call for various consultants to serve the project in certain subject areas as well as in the technical aspects of computer related instruction. These concultants will be working largely with individual schools, attempting to tailor data processing services to meet the needs of each school. In the course of the consultants work, in-service sessions for administrators, teachers, counselors, librarians, etc. will be conducted to acquaint them with the operation of the system and help school personnel to make the necessary adaptations as well as assist them in using the data processing tools to make the desired innovations.

In the course of planning this project, staff members visited the sites of other cooperative educational data centers and hosted visitors from those sites when the latter came to review and discuss the planned Twin City cooperative data center. Should the project be implement as it is described in this proposal, it is very much the conviction of the project staff that the subsequent data center will indeed be an exemplary and model center which will in turn invite, welcome, and arrange for visits by other school personnel interested in examining our facilities and programs.

In addition to hosting visitors, it is certainly envisioned that the cooperative data center will make staff members available for consultation with other school districts interested in similar projects.

Once the center is in full operation, it is furthermore planned that explanatory material will be developed in which a summary of the development of the project and its present operating status will be presented. Along with whatever explanatory material is published by the data center itself, the center will continue to be publicized by the local press. The data center staff will keep such media informed of progress, especially where the media are professionally oriented (e.g. educational journals).

The Director of the TIES System will hold monthly meetings with the Board of Govenors and Superintendents of participating districts to inform them of progress, evaluate present program and develop ideas relative to new needs of participants.

The TIES Staff will publish a newsletter summarizing the programs being carried on by the staff and informing participants and others of future developments.

Directors of the Data Processing and Consultants will hold district wide meetings with participating systems staff to provide communication on a district basis.

Consultants will hold general meetings in specialized subject matter areas for the purpose of keeping public and non-public participating districts informed. Such meetings will be held in a regular basis as determined by the needs of the curriculum groups.

The governing board will publish an annual report summarizing activities for the year and describing available information and proposed developments for the all interested school districts in the state.

Regular meetings will be held by the Director of the TIES System with representatives of the State Department of Education Data System and the Midwestern States Educational Information Project as frequently as deemed mutually necessary by these groups. All descriptive communication emanating from the TIES System will be sent to these organizations.

Communication will be continued with representatives of the Upper Midwest Regional Laboratory as it is thought mutually beneficial by members of both groups.

Business, industry and educational Institutions will be kept up to date by continuation of a TIES advisory committee with such liaison conducted as is necessary to keep members of these important area informed and active.

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X. QUALIFICATIONS OF PROFESSIONAL PERSONNEL

The personnel requirements are grouped into five different categories:

1.	Administration	Proposed Salaries
	Director of Educational Services Assistant Director of Educational Services	\$25,000 20,000
2.	Consultants	
	Educational Research Consultant	14,000
	Mathematics Consultant	14,000
	Business Education Consultant	14,000
	Social Studies Consultant	14,000
	Science Consultant	14,000
	Advance Computer Related Instruction Consult	ant 16,000
	Materials Information Consultant	14,000
3.	Systems/Programming	
	Systems/Programming Manager	16,000
	Systems Analysts (4)	13,000
4.	<u>Operations</u>	
	Manager of Operations	12,000
	Accountant	8,000
5.	Services/Conversion Personnel	
	Services Co-ordinator	13,000
	Conversion Co-ordinator	11,000

All of the above positions will be filled as qualified individuals become available and as the pattern of services is expanded according to the previously outlined plan. Following are brief descriptions of the responsibilities of each position together with minimum acceptable qualifications, including educational background and experience. All will be full-time employees. The salaries described above are comparable to those received by persons with similar qualifications in the Twin Cities Metropolitan Area, although no comparable positions exist at the present time.

9,000

Assistant Conversion Co-ordinators (2)

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A. Administration.

- 1. Director of Education Services.
 - a. Qualifications. This individual should have a Master's Degree and a Doctorate is highly desirable. He should have prior experience as an outstanding school administrator who has demonstrated understanding of electronic data processing in the education environment. He should have directed others in the planning and implementation of multiple data processing services. More importantly, however, he should be an individual who has demonstrated skills in working with multiple school districts in cooperative education ventures. In his prior capacities he should have a record for innovation and have demonstrated leadership skills in stimulating others.
 - b. Responsibilities.
 - Policy. He would initiate and administer policy appropriate to the internal staff. Where appropriate, he would recommend policy to those to whom he is responsible.
 - (2) Objectives. He would have over-all responsibility for the formulation of objectives as represented in a detailed plan, including dates for the initiation and completion of various tasks.
 - (3) Finance. He would have responsibility for developing budgets of income and expense periodically and presenting these to those to whom he is responsible. He would also be responsible for meeting the objectives set forth in the budget.
 - (4) Personnel. He would have responsibility for the recruitment, retention, supervision, development, termination, and compensation of all staff personnel.
- 2. Assistant Director of Education Services.
 - a. Qualifications. This individual should have a Bachelor's Degree and preferably an advanced degree. He should previously have held responsibilities as a school administrator, director of data processing, assistant director of data processing, director or manager of systems and/or programming. He should have demonstrated by previous responsibility his capacity to direct the activities of others, including both systems/programming and operational personnel. He should also have an understanding

of, or demonstrated capability to quickly grasp, the problems and environment of education. His skills and background should tend to complement those of the director.

- b. Responsibilities.
 - Objectives. He should assist in formulating the objectives of all those persons under his direction and review their progress with respect to fulfilling the objectives.
 - (2) Appraisal. He should appraise the performance of individuals reporting directly to him for subsequent review by the director. He should review the personnel appraisals made by his subordinate personnel.
 - (3) Coordination. He shall see that all personnel under his direction adequately communicate with each other as appropriate.

B. Consultants.

- 1. Educational Research Consultant.
 - a. Qualifications.
 - (1) M.A. in counseling.
 - (2) Strong background in research techniques and procedures
 - (3) Knowledge of the concepts of electronic data processing and the mathematical techniques it makes available to research activities.
 - (4) Competence in a leadership role.
 - b. Responsibilities.
 - (1) To develop an on-going research program to measure the effects of educational programs.
 - (2) To develop a program of evaluation related to the individual programs.
 - (3) To report the results of the measurement and evaluation to all participating public and non-public schools and other interested agencies.
 - (4) To prepare research designs for proposed programs so that results may be measured appropriately.

- (5) To coordinate the efforts of participating schools related to student personnel records.
- (6) To develop an advisory committee on school personnel programs.
- 2. Mathematics Consultant.
 - a. Qualifications.
 - (1) B.A. in mathematics or mathematics education.
 - (2) Appropriate training in the technical aspects of electronic data processing including experience in Fortran or allied language.
 - (3) Able to demonstrate some innovative use of the computer in the mathematics curriculum at the secondary level.
 - (4) Some experience in a supervisory capacity including demonstrated leadership skills in group situations.
 - (5) Minimum of three years' experience as a secondary school mathematics teacher at the senior high school level.
 - (6) Training or experience in curriculum development related to mathematics at the senior high school level.
 - b. Responsibilities.
 - (1) Membership on the Mathematics Technical Committee.
 - (2) Develop contacts with various persons to act as resource persons to the Technical Committee. These persons could be associated with industry, colleges, universities, professional organizations, etc.
 - (3) Direct and coordinate curriculum development programs in secondary mathematics related to and utilizing the computer for public and non-public school students.
 - (4) Direct the development of computer programs and materials utilizing educational data processing for secondary school mathematics in public and nonpublic schools.
 - (5) Serve as liaison between the Technical Committee and the data processing center systems/programming staff.

- (6) Develop, coordinate and direct in-service education programs for mathematics teachers from participating public and non-public schools related to new curriculum, programs and materials.
- (7) Direct the development and implementation of special services of the data processing center developed for students and staff members from participating schools.
- (8) Prepare the following:
 - (a) A curriculum utilizing the computer as a means of teaching mathematics.
 - (b) Recommendations which will establish and maintain the proposed curriculum.
 - (c) Survey of existing computer resources which might be utilized to establish and maintain the projected program(s).
- 3. Business Education Consultant.
 - a. Qualifications.
 - (1) B.A. in business education.
 - (2) Appropriate training in the technical aspects of data processing, including familiarity with computer and punch card equipment.
 - (3) Experience in programming with assembly languages such as Autocoder, Easycoder, Cobol, etc.
 - (4) Previous demonstrations of innovative use of data processing equipment in the business education curriculum at the senior high school level.
 - (5) Some experiecne in a supervisory capacity including demonstrated leadership skills in group situations.
 - (6) Training or experience in curriculum development or innovation related to business education on the senior high school level.
 - b. Responsibilities.
 - (1) Membership to the Business Education Technical Committee.
 - (2) Develop contacts with resource persons from colleges and universities, other secondary schools, businesses, etc., for the benefit of the Technical Committee.

- (3) Direct and coordinate curriculum development in business education, related to and utilizing data processing equipment for public and non-public school students.
- (4) Developsappropriate programs and materials utilizing educational data processing for business education at the secondary level in public and non-public schools.
- (5) Serve as liaison between the Business Education Technical Committee and the data processing center systems/programming staff.
- (6) Develop, coordinate and direct in-service education programs for teachers from participating public and non-public schools for the implementation of revised or new curricula.
- 4. Social Studies Consultant.
 - a. Qualifications.
 - (1) M.A. in social studies education.
 - (2) Appropriate training in the technical aspects of data processing, including some knowledge of or experience in computer programming.
 - (3) Some experience in a supervisory capacity including demonstrated leadership skills in group situations.
 - (4) Minimum of three years' experience as a secondary school social studies teacher at the senior high school level.
 - (5) Significant demonstrated interest in the various impacts on society of electronic computers.
 - b. Responsibilities.
 - (1) Recommend membership to the Social Studies Technical Committee.
 - (2) To direct and coordinate curriculum development in secondary school social studies related to and utilizing the computer for public and nonpublic students.
 - (3) To direct the development of programs and materials utilizing educational data processing for secondary

school social studies students in public and non-public schools.

- (4) To serve as a liaison between Social Studies Technical Committee and the data processing center systems/programming staff.
- (5) To develop, coordinate, and direct in-service education for social studies teachers from participating public and non-public schools for the implementation of new programs.
- (6) To direct the development and implementation of the data processing center developed for students and staff members from participating schools.
- (7) To prepare the following:
 - (a) A curriculum utilizing or taking the computer into account insofar as it bears on the curriculum of social studies.
 - (b) Survey existing resources which may be utilized to establish and maintain the projected program.
- 5. Science Consultant
 - a. Qualifications.
 - (1) M.A. in a science or science education.
 - (2) Appropriate training in the technical aspects of data processing and prior experience in adopting computers to a classroom environment.
 - (3) Some experience in a supervisory capacity, including demonstrated leadership skills in group situations.
 - (4) Minimum of three years' experience as a secondary school science teacher at a senior high school level.
 - (5) Experience or knowledge of computer programming.
 - b. Responsibilities.
 - (1) To recommend membership to the Science Technical Committee.
 - (2) To direct and coordinate curriculum development in secondary school science related to and utilizing the computer for public and non-public students.

- (3) To direct the development of computer programs and materials utilizing educational data processing for secondary school science students in public and non-public schools.
- (4) To serve as a liaison between the science Technical Committee and the data processing center systems/ programming staff.
- (5) To develop, coordinate, and direct in-service education for science teachers from participating public and non-public schools for the implementation of new programs.
- (6) To direct the development and implementation special services of the data processing center for students and staff members from participating schools.
- (7) To prepare the following:
 - (a) A curriculum utilizing the computer to teach the sciences or aspects thereof.
 - (b) Survey existing computer resources which may be utilized to establish and maintain the projected program.
- 6. Advance Computer Related Instruction (CRI) Consultant.
 - a. Qualifications.
 - (1) M.A. with strong background in curriculum and instruction.
 - (2) Experience in working with and knowledge of the development of programmed instruction.
 - (3) Five years of teaching experience.
 - (4) Knowledge of and experience in computer applications to instruction.
 - (5) Experience in a supervisory capacity and demonstrated leadership skills in group situations.
 - b. Responsibilities.
 - General responsibility for over-all coordination and/or supervision of all advanced computer related instruction activities.
 - (2) To assist in curriculum development of advanced

computer related instructional programs pertaining to mathematics, business education, science, social studies, etc.

- (3) Develop specialized programs, as designated by particular schools for implementation in their curriculum, with special emphasis initially on mathematics and business education.
- (4) Direct in-service education programs relating to advanced CRI.
- (5) To develop materials related to specialized programs and needs of teachers.
- (6) Work with subject consultants curriculum directors and administrators to develop and implement innovative programs in the subject matter areas related to advanced CRI.
- 7. Materials Information Consultant.
 - a. Qualifications.
 - (1) M.A. in library science.
 - (2) Knowledge of computer and image storage potentialities relating to educational materials.
 - (3) Experience in a supervisory capacity and demonstrated leadership skills in a group environment.
 - b. Responsibilities.
 - (1) To analyze organizational and work patterns and determine areas which may be improved within existing systems.
 - (2) To develop concepts and details of operations which will result in new opportunities for creative use of library materials and facilities.
 - (3) To develop concepts and details of applying new technology to storage and retrieval of educational information.
 - (4) To coordinate the utilization of data processing services cooperating school systems, including book processing, union catalogue, circulation control, reading pattern inventory, and student/ class profiles.

- (5) To develop in-service education programs to fit specialized needs of cooperating school systems.
- (6) To work with the materials informations system policy and technical committee to plan the implementation of priorities to be served.

C. Systems/Programming.

- 1. Systems/Programming Manager.
 - a. Qualifications. Individuals in this capacity should have a Bachelor's degree. He should have prior experience as a systems/programming manager or assistant or have otherwise demonstrated his supervisory skills with systems/programming personnel.
 - b. Responsibilities.
 - Policy. He should initiate policy where appropriate and administer all policy relating to his area of responsibility.
 - (2) Objectives. He should assist personnel under his direction in formulating objectives and where appropriate establish objectives for those under his jurisdiction.
 - (3) Coordination. He should make certain that all personnel under his direction adequately coordinate their activities with other appropriate parties.
- 2. Systems Analyst.
 - a. Qualifications. Individuals in this capacity should preferably have a Bachelor's degree. They should have demonstrated in prior employment that they possess above average analytical skills, a capacity to work and communicate easily with a wide variety of personnel, a good understanding of hardware and software and the ability to develop adequate documentation with respect to their work. This individual should have a capacity to communicate in writing. He should also previously have demonstrated the capacity to supervise programmers under his jurisdiction.
 - b. Responsibilities.
 - (1) Objectives. He should formulate the written objectives with respect to his area of information

system responsibility, and review these plans with his supervisor.

- (2) Supervision. He should supervise the programmers under his jurisdiction and develop jointly with them a definition of their responsibilities.
- (3) Appraisal. He should periodically appraise the performance of personnel under his direction and make recommendations to his immediate supervisor.
- (4) Coordination. He should maintain adequate communication with all other persons working on information systems having some relationship to his and assure that personnel under his direction are communicating adequately with each other in this same connection.
- (5) Design and Documentation. Through contact with school personnel and the appropriate technical committee, he should formulate the system, subsystem and application design for those areas under his responsibility. He should create the necessary documentation to explain the proposed design of systems, sub-systems and applications to school personnel and to obtain their approval of the design. Documentation should also be adequate so as to provide the necessary data to programming personnel under his direction.
- (6) Committee Membership. He shall be an ex-officio member of the technical committee appropriate to his area of responsibility. He shall also take the initiative with respect to the subjects the committee would deal with in setting forth the alternatives upon which the committee would base a decision.
- (7) In-service Education. He should, in conjunction with services/conversion personnel, formulate the in-service education program appropriate to his particular system. It should be his responsibility to develop the necessary curriculum units and materials to be used by himself and by the services/ conversion personnel. He should resolve on the advice of the assistant director or systems/programming manager the division of responsibilities between himself and his staff and the services/ conversion personnel with respect to the implementation of a new data processing service and its subsequent use by other school systems.
- 2. Programmer.
 - a. Qualifications. These individuals should have a
minimum of a high school diploma and have had a minimum of one year's experience with programming systems involving tape or direct-access oriented hardware. He should have demonstrated above average capabilities in his prior employment as a programmer.

- b. Responsibilities.
 - Objectives. He should formulate objectives with his immediate supervisor and review progress in meeting these objectives with him periodically.
 - (2) Design and Coding. Utilizing the documentation supplied him by the systems analyst, he should undertake any detailed design work that may be necessary and code and debug his programs to place them in operational status.
 - (3) Documentation. He should maintain adequate documentation of his design and coding activities so that communication with systems and operational personnel is satisfactory.
 - (4) Coordination. He should communicate adequately with other staff personnel to insure a proper interface between his programs and others that may have to interface with it.
 - (5) In-service education. He should perform whatever in-service activities are deemed appropriate by the systems analyst and services/conversion personnel.
- D. Operations.
 - 1. Manager of operations.
 - a. Qualifications. This individual should have at least a high school diploma and have previously served in a position as manger or assistnat manger of operations. He should have demonstrated in his previous employment a capacity for supervising others and a consistent capacity to meet the schedules in effect. He should also have had a minimum of six months experience in programming, or its equivalent.
 - b. Responsibilities.
 - (1) Objectives. He should formulate objectives for

the department and periodically review these objectives with his immediate supervisor.

- (2) Appraisal. He should periodically appraise the personnel under his jurisdiction and make compensation recommendations.
- (3) Coordinate. He should coordinate the activities of his department so that the requirements of all staff personnel are met.
- (4) Scheduling. He should schedule the operation of his department so as to meet the requirements of those to whom data processing services are being provided. This will involve communications with school personnel wherein an older service is being utilized. For all new services, he should communicate with services/conversion personnel in addition to those in a particular school.
- 2. Other Operational Personnel

Below are the titles of various personnel and brief descriptions of their responsibilities.

a. Computer/Machine Operator.

These personnel would be responsible for the operations of the computer hardware and other machines appropriate to the functioning of the data center.

- b. Control Personnel. These individuals would be responsible for reviewing input from the various schools and assuring the adequacy of controls. Similarly they would receive the output and review its completeness and accuracy before transmittal to the school systems.
- c. Secretaries. They would provide necessary secretarial assistance to the staff.
- d. Keypunch Operators. They would perform all keypunch and key verification operations necessary to the proper operation of the data center.
- e. Transportation Personnel. These individuals would physically transport data between the school systems and the data center.
- f. Accountant. This individual would be responsible for the maintenance of appropriate financial and operational records. Emphasis would be placed on those records necessary for creation of cost data on systems design and programming. He would also be responsible for

creation of cost data on systems design and programming. He would also be responsible for allocations associated with new or added membership in the cooperative operation.

- E. Services/Conversion Personnel.
 - 1. Services Coordinator.
 - a. Qualifications. This individual should have a Bachelor's Degree and prior experience as a programmer or systems analyst. He should have an outstanding capability in working with all types of individuals and be particularly skilled in understanding the problems to which data processing is to be applied in the school systems. It is desirable though not necessary that this individual have taught at some time in his career. This individual should possess above average written and verbal communication skills. He should also have demonstrated the capacity to supervise the direction of others.
 - b. Responsibilities.
 - Supervision of conversions. He would have overall responsibility for supervising the conversions at each school system and to direct the activities of his staff members in that connection.
 - (2) Negotiations. He would be responsible within the framework of authority delegated to him to call on school systems not participating in the cooperative data processing program and work out arrangements suitable to the prospective school system and the data center. This would include development of at least the following:
 - (a) Costs.
 - (b) Schedules of conversion and subsequent service.
 - (c) Selection of the school systems Education Information Systems Coordinator.
 - 2. Conversion Coordinator and Assistants.
 - a. Qualifications. These individuals should have at least six months prior experience in programming.

They should have good verbal communication skills and be able to work easily with a wide variety of school personnel. They should be individuals with an above average interest in technical details. Preferably they have some prior experience with communication terminals.

- b. Responsibilities.
 - (1) Conversion schedules. These individuals would work with the EIS*coordinators in the individual school systems to develop appropriate conversion schedules. They would assemble the necessary materials appropriate to the conversion and make them available to the school personnel. They would also assist the school personnel in preparing data necessary for the conversion.
 - (2) In-service education. For selected data processing services, they would conduct the in-service education sessions for school personnel. In other instances, they would execute this task jointly with the systems analysts or others.
 - (3) Expedite. During the days or weeks of conversion, these individuals would work closely with school, programming, systems, and operations personnel in order to assure that the difficulties of conversion are kept to a minimum and that all unsatisfactory conditions are corrected as quickly as possible.
 - (4) Systems Revision. These individuals will serve as the communicators of revisions that need be made to existing applications in order to improve upon them or meet the requirement of an individual school system that cannot be resolved in any other way.

No professional personnel have yet been employed for the positions described above. The activities schedule in the Appendix describes the schedule for employment of personnel.

*Educational Information System

PART III BUDGET

- 1. Budget Summary July 1, 1967-June 30, 1968
 - Budget Detail
- 3. Budget Summary
- 4. Budget Summary

2.

- July 1, 1967-June 30, 1968
- July 1, 1968-June 30, 1969
- July 1, 1969-June 30, 1970

PROPOSED BUDGET SUMMARY 1/ For Title III P.L. 89-10 Funds (one summary for each proposed grant period)

Name and address of applicant <u>Suburban School Services Joint Board</u>, 6425 West 33rd St., St. Louis Park, Minnesota Grant period would begin July 1, 1967 and end June 30, 1968

				Canel Commission of Station and Association and Asso				nden Jampaulite malloffitterin operationalisterin om angestateringen	
Expenditure Accounts	Account No. 2/	Sala Pro- fessional	nies Nonpro- fessional	Contracted Services	Materials <u>& Supplies</u>	Travel	<u>Equip</u> .	Other Expenses	<u>Total</u>
1) Administration	<u> 100</u>	151,000	5,000	30,000	2,280	7,200		18,300	213780
2) Instruction	200	66,168	5,000	10,000	4,140	3,500		52,500	141308
3) Attendance	300								
4) Health Service	400								
5) Pupil Transportation Services	500								
6) Operation of Plant	600		20,500		6,100			9.450	36050
7) Maintenance of Plant 3/	700							an a	
8) Fixed Charges	800			16,400				22,290	38690
9) Food Services 3/	900								
10). Student-Body Activities	1000	an a farman ann a mar ann an tha a							
ll) Community Services	1100								
12) Remodeling 4/	1200	Eline (eline el la construction de		and and the second s					
13) Capital Outlay (Equip. only) <u>5</u> /	1230						20,000		20000
14) TOTAL <u>6</u> /		217,168	30,500	56,400	12,520	10,700	20,000	102,540	449828

Show dollar amounts only

1/ Attach schedules giving details on salaries, consultants, contracted services, travel, material, and supplies, equipment, other expenses. These should be shown for each expenditure account (See Exhibit I-B(1) to I-B(5).) 2/ Account No. refers to code series in the handbook, <u>Financial Accounting for Local and State School Systems</u>, available from the U.S. Office of Education and Government Printing Office.

- 3/ Generally, this account will not be used in the Title III program.
- 4/ If costs total more than \$2,000, enter in proposed facilities budget.
- 5/ Include all equipment in account 1230.

6/ Local Funds - \$142,500

Title III Funds - \$307,328

Expenditure Account No. 100 - Administration

Expense Class	Name and Title, Purpose, or Item	Full Time	Part Time	Quantity	Salary Rental, or Unit Cost	Budgeted Amount			
Salaries Professional									
	Director of Education Services 100%, 12 mos.	X		1	\$ 25,000/yr	\$ 25,000			
	Assistant Director, Educational Services 100% 12 mos.	x		1	20,000/yr	20,000			
	Systems Analyst Programmer	X X		4 6	13,000/yr 9,000/yr	52,000 54,000			
Non-Professional	Secretary/Stenographer/Clerk	X		1	5,000/yr	5,000			
Contracted Service	es Professional Consultation Services: Legal, auditing, account, editorial, data processing, systems design			300 days	100/da	30,000			
Materials & Suppli	es Office Supplies & Materials Library Books, Materials, professional magazines, dues Postage			1 lot 12 mos 12 mos	125/mo 15/mo 50/mo	1,500 180 600			
Other Expenses	Recruitment/Moving Expenses			18.3	1,000/ incremental FTE	18,300			
Travel	Travel and subsistence for conferences in Minnesota and out-of-state			1.5 trips FTE	300/ trip	5,400			
	Travel and expense - local		- Yejinee	employees 12 FTE	150/yr	1,800			
Total Budgeted Amount \$ 213,780									

Expenditure Account No. 200 Instruction

Expense Class	Name and Title, Purpose or Item	Full Time	Part Time	Quantity	Salary, Rental, or Unit Cost	Budgeted Amount
Salaries Professional Non-Professional	Staff Consultants: Educational Research Mathematics 10 mos Business Education 10 mos Social Studies 4 mos Science 4 mos Advanced CRI 4 mos Materials Information 4 mos Services Coordinator 6 mos Assistant Conversion Coordinator 4 mos	X X X X X X X X X		1 1 1 1 1 1 1	<pre>\$ 1,166.67/mo 1,166.67/mo 1,166.67/mo 1,166.67/mo 1,333.33/mo 1,166.67/mo 1,083.33/mo 750.00/mo</pre>	\$ 14,000 11,667 11,667 4,667 4,667 5,333 4,667 6,500 3,000
	Secretary/Stenographer/Clerk	X		1	5,000.00/yr	5,000
Contracted Services	Professional Consultation Services: Educational research and curriculum development- mathematics, science, business education, social studies			100 days	100/day	10,000
Materials & Supplies	Office Supplies & Materials Library Books, Materials Professional Magazines, dues Postage			12 mos 12 mos 12 mos	75/mo 70/mo 120/mo	900 840 2,400

No, 200 Instruction continued

Expense Class	Name and Title, Purpose or Item	Full Time	Part Time	Quantity	Salary, Rental, or Unit Cost	Budgeted Amount				
Other Expenses	Other Expenses Printing/Binding Espenses In-Service publication, procedural manuals, newsletter, etc.			12 mos	7,500/yr	7,500				
	In-Service Education Expenses- visiting lecturers, site visits, space rental, published material, classroom aids			12 mos	10,000/yr	10,000				
	Rental of Data Center Computer time for testing/scheduling			67 hours	150/hr	10,000				
	Rental of Data Center Computer time for Instructional Uses, terminal charges			9 mos	833/mo	7,500				
	Rental of On-Premise Computer and related equipment (arrive May 1968)			2 mos	8,750/mo	17,500				
Travel Travel and subsistence for conferences in Minnesota and out-of-state visitations				1.5 trips/ FTE employee	300/trip	2,250				
	Travel and expense-local			7.5 FTE employee	150/yr	1,250				
Total Budgeted Amount \$141,308										

Expenditure Account No. 600--Operation of Plant

Expense Class Name and Title, Purpose or Item			Part Time	Quantity	Salary, Rental, or Unit Cost	Budgeted Amount			
Salaries									
	Manager of Operations, 6 mos	x		1	\$ 12.000/vr	\$ 6,000			
	Computer/Machine Operator, 3 mos	x		1	8,000/yr	2,000			
	Keypunch Operators, 6 mos	X		1	5,000/yr	2,500			
	Transportation Personnel, 2 mos	X		1	4,000/yr	667			
	Control Personnel, 12 mos	X		1	4,500/yr	4,500			
	Program/File Librarian, 2 mos	X		1	5,000/yr	833			
	Accountant, 6 mos	X		1	8,000/yr	4,000			
Materials & Supplies	Data Processing Forms & Supplies			l lot	6,100,00	6,100			
Other Expenses	Telephone Services, Local & long distance Freight Charges			12 mos	300/FTE Employee 150/mo	6,450 3,000			
		j		**********	an a				
Total Budgeted Amount \$ 3									

Expenditure A	Account	No.	800 •	- Fixed	Charges
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Expense Class	Name and Title, Purpose or Item	Full Time	Part Time	Quantity	Salary, Rental, or Unit Cost	Budgeted Amount	
Contracted Services	Rental of space to house project personnel Rental of space to house central processing hardware and equipment (2 mos)			150sq, ft. per FTE employee 2500sq, ft.	\$ 4.50/sq. ft. 4.50/sq. ft.	\$ 14,500 1,900	
Other Expense				9% of Adjusted Salaries (\$247,668)	22,290		
Total Budgeted Amount							

Expenditure Account No. 1230 - Capital Outlay

Description of Itom	Quantity	Unit Cost	Budgeted Amount
Description of them			
Double Pedestal Desks	3	\$ 265,00	\$ 1,095
Swivel Chairs	20	110.00	2,200
Secretarial Desks	2	150,00	300
Stepo Chairs	2	30.00	60
Dictating Machines	2	300,00	600
Mimeograph Machine	1	1,000,00	1,000
Four Dravor Legal Files	20	40,00	800
Dock single pedectal	17	184.00	3,128
Obein office	20	36.00	720
Chair, orrice	2	400,00	800
Typewriter, Electric	2	180,00	360
Typewriter, Manual Book & Storage Cases	20	100.00	2,000

No	1230	- Ca	pital	Outlay	continued
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Description of Item	Quantity	Unit Cost	Budgeted Amount					
Tables, metal 60x30 Storage Cabinets Collator, Electric Machine Stands Office Copier Miscellaneous room dividers, mimeo, copier, dictaphone and office equipment & supplies	8 10 1 3 1 1 lot	135.00 70.00 247.00 70.00 300.00 4,400.00	1,080 700 247 210 300 4,400					
Total Budgeted Amount \$ 20								

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PROPOSED BUDGET SUMMARY 1/ For Title III P.L. 89-10 Funds (one summary for each proposed grant period)

Name and address of applicant <u>Suburban School Services Joint Board</u>, 6425 West 33rd St., St. <u>Louis Park</u>, <u>Minnesota</u> Grant period would begin July 1, 1968 and end June 30, 1969

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Ex	penditure Accounts	Account No. 2/	Sala Pro- fessional	ries Nonpro- fessional	Contracted Services	Materials & Supplies	<u>Travel</u>	Equip.	Other Expenses	<u>Total</u>
1)	Administration	100	157,040	5,200	20,000	5,280	9,200		15,200	211920
2)	Instruction	200	142,214	5,200	15,000	5,640	7,500		155,000	330554
3)	Attendance	300								
4)	Health Service	400							an na han an an an ann an an ann an an an an an	
5)	Pupil Transportation Services	500								
6)	Operation of Plant	600		83,020	~ ~	41,100			15,700	139820
7)	Maintenance of Plant 3/	700								
8)	Fixed Charges	800			36,600				35,340	71940
9)	Food Services <u>3</u> /	900								
10)	Student-Body Activities	1000								
11)	Community Services	1100	gen (mener en	n a fan se fa	a na	an ginn yan an a			anna a' fha ann an Anna ann an Anna ann an Anna ann an Anna Anna.	
12)	Remodeling 4/	1200								
13)	Capital Outlay (Equip. only) 5/	1230						15,000		15000
14)	TOTAL 6/		299,254	93,420	71,600	52,020	16,700	15,000	221,240	769234

Show dollar amounts only

1/ Attach schedules giving details on salaries, consultants, contracted services, travel, material, and supplies, equipment, other expenses. These should be shown for each expenditure account (See Exhibit I-B(1) to I-B(5).) 2/ Account No. refers to code series in the handbook, <u>Financial Accounting for Local and State School Systems</u>, available from the U.S. Office of Education and Government Printing Office.

3/ Generally, this account will not be used in the Title III program.

- 4/ If costs total more than \$2,000, enter in proposed facilities budget.
- 5/ Include all equipment in account 1230.
- 6/ Local Funds \$430,000

Title III Funds - \$339,234

PROPOSED BUDGET SUMMARY 1/ For Title III P.L. 89-10 Funds (one summary for each proposed grant period)

Neme and address of applicant Suburban School Services Joint Board, 6425 West 33rd St., St. Louis Park, Minnesota Grant period would begin ______ July 1, 1969 ______ and end ______ June 30, 1970 ______

				and and a structure from the second standard to a structure of the second structure of the second structure of the			**************************************	**************************************	Statute attraction or other
Expenditure Accounts 1) Administration	Account No. 2/ 100	Sala Pro- fessional 179,321	ries Nonpro- fessional 15,408	Contracted Services 5,000	Materials <u>& Supplies</u> 7,280	<u>Travel</u> 10,200	<u>Equip</u> .	Other <u>Expenses</u> 14,700	<u>Total</u> 231909
2) Instruction	200	156,902	5,408	5,000	8,140	10,500		201,000	386950
3) Attendance	300		an a	fan wijern geref begregen in werk of wij werk in werke sin de gewenne werk en werken.	januaran hagan agaggan kukangkin agaur "Panto", situ di Santa katagan ku			₩₩5 ₩₩5,₩99,₩99,₩99,₩99,₩99,₩99,₩99,₩99,₩99,	
4) Health Service	400	99) jan ja senemen sellen ellen hannen kan en senemen sellen et se	Conservation (and the free for the second	ς μαζητοφήθηζοματική δημοτική δουματική του διαφορά του που του που που που που που που που που που π				innen allerti den erret er santen Linden grunt i mar etti si para	
5) Pupil Transportation Services	500	Na frei La an La anna an La Anna La Anna La Anna Ann	in an ang ang ang ang ang ang ang ang ang	rig, filman signa antagan kan ang ang ang ang ang ang ang ang ang a		(αναστά το το πορογογιατικό μαζό το μεγορογιατικό το πορογιατικό το πορογιατικό το πορογιατικό το πορογιατικό τ Το πορογιατικό που παραγολογιατικό το πορογιατικό το πορογιατικό το πορογιατικό το πορογιατικό το πορογιατικό το	
6) Operation of Plant	600		144,240		51,100			25,900	221240
7) Maintenance of Plant 3/	700								
8) Fixed Charges	800	÷		46,600				45,115	91715
9) Food Services 3/	900							nandiska, dista anima nganiska kati a na - o isi kutani ana	
10) Student-Body Activities	1000								
1) Community Services	1100		an an an tha an	jų unienistais yra kystantiktė parkaukuruskų piskai menas uppretantijanų 	ne for de la comercia de la construcción de la construcción de la construcción de la construcción de la constru La construcción de la construcción d		an a sharin a sharin 200 sharin 2	n wei den wei de Same Can Ser offen wei gester weise fin in den der Andere	en bereidentiker of "Aktended" (1999)
12) Remodeling <u>4</u> /	1200			n an					
L3) Capital Outlay (Equip. only) <u>5</u> /	1230						10,000		10000
14) TOTAL <u>6</u> /		336,223	165,056	56,600	66,520	20,700	10,000	286,715	941814

Show dollar amounts only

1/ Attach schedules giving details on salaries, consultants, contracted services, travel, material, and supplies, equipment, other expenses. These should be shown for each expenditure account (See Exhibit I-B(1) to I-B(5).) 2/ Account No. refers to code series in the handbook, <u>Financial Accounting for Local and State School Systems</u>, available from the U.S. Office of Education and Government Printing Office.

3/ Generally, this account will not be used in the Title III program.

4/ If costs total more than \$2,000, enter in proposed facilities budget.

5/ Include all equipment in account 1230.

6/ Local Funds - \$605,000 Title III Funds - \$336,814

ASSURANCES FOR INITIAL APPLICATION

PART IV

THE APPLICANT HEREBY GIVES ASSURANCE TO THE UNITED STATES COMMISSIONER OF EDUCATION THAT:

1. The applicant has the necessary legal authority to apply for and receive the proposed grant. (Attach a copy of substantiating document (s));

2. The activities and services for which assistance is sought under this Title will be administered by or under the supervision of the applicant;

3. In planning the program proposed in the application, there has been, and in establishing and carrying out that program, there will be participation of the appropriate cultural and educational resource(s) of the area to be served;

4. Any funds received under this grant shall not be used to supplant funds normally budgeted for the planning of services of the same type;

5. The applicant will comply with Title VI of the Civil Rights Act of 1964 (P.L. 88-352) and all requirements imposed by or pursuant to the Regulations of the Department of Health, Education, and Welfare (45 CFR Part 80) issued pursuant to the title, to the end that no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which the applicant receives Federal financial assistance from the Department. (The assurance of compliance (HEW 441), or court order, or desegregation plan previously filed with the U.S. Office of Education in accordance with the Department of Health, Education, and Welfare Regulations applies to this application);

6. The project will be operated in compliance with Public Law 89-10 and with Regulations and other policies and administrative issuances by the Commissioner, including submission of such reports as may be required;

7. Copies of this application have been submitted for review and recommendation to the State educational agency;

8. The filing of this application has been authorized by the governing body of the applicant, and the undersigned representative has been duly authorized to file this application for and in behalf of said applicant. and otherwise to act as the authorized representative of the applicant in connection with this application. (Attach copy of authorizing document(s)).

I, <u>Harold R. Enestvedt</u>, do hereby certify that all of the facts, figures, and representations made in this application, including all exhibits and attachments hereto and hereby made a part of this application, are true and correct to the best of my knowledge and belief.

DATED: 1/13/67

Suburban School Services Joint Baord

(Legal name of applicant) ΒY

(Signature of authorized representative)

Harold R. Enestvedt, Clerk

(Representative's title)

NOTARY PUBLIC:

NOTARY PUBLIC SEAL Subscribed to before me this

and and the second s	. L. Maries	ack for	n na farainn an thattara N M M San an a
(Date)	(City)	(State)	
SIGNATURE OF NOTARY P DATE NOTARY'S COMMISS	UBLIC	no Mar James 20, 1	Dalla. 9 c 9

PART V APPENDIX

- 1. Civil Rights Assurance
- 2. Authorization and Appoint of Representative of Applicant Agency
- 3. SSSJB Memo of Agreement
- 4. Chapter 744 Minnesota Statutes
- 5. Sample School Board Resolution
- 6. Abstract
- 7. Letters of Commitment
- 8. Activity Schedule
- 9. Systems and Programming Schedule
- 10. Income Forecast 5 yr. Expense Forecast
- 11. Sample Questionnaires a. Secondary Pupil Personnel b. Instructional Uses

ASSURANCE OF COMPLIANCE WITH THE DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE REGULATION UNDER TITLE VI OF THE CIVIL RIGHTS ACT OF 1964

Suburban School Services Joint Board (hereinafter called the "Applicant") (Name of Applicant)

HEREBY AGREES THAT it will comply with title VI of the Civil Rights Act of 1964 (P.L. 88-352) and all requirements imposed by or pursuant to the Regulation of the Department of Health, Education, and Welfare (45 CFR Part 80) issued pursuant to that title, to the end that, in accordance with title VI of that Act and the Regulation, no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which the Applicant receives Federal financial assistance from the Department; and HEREBY GIVES ASSURANCE THAT it will immediately take any measures necessary to effectuate this agreement.

If any real property or structure thereon is provided or improved with the aid of Federal financial assistance extended to the Applicant by the Department, this assurance shall obligate the Applicant, or in the case of any transfer of such property, any transferee, for the period during which the real property or structure is used for a purpose for which the Federal financial assistance is extended or for another purpose involving the provision of similar services or benefits. If any personal property is so provided, this assurance shall obligate the Applicant for the period during which it retains ownership or possession of the property. In all other cases, this assurance shall obligate the Applicant for the period during which the Federal financial assistance is extended to it by the Department.

THIS ASSURANCE is given in consideration of and for the purpose of obtaining any and all Federal grants, loans, contracts, property, discounts or other Federal financial assistance extended after the date hereof to the Applicant by the Department, including installment payments after such date on account of applications for Federal financial assistance which were approved before such date. The Applicant recognizes and agrees that such Federal financial assistance will be extended in reliance on the representations and agreements made in this assurance, and that the United States shall have the right to seek judicial enforcement of this assurance. This assurance is binding on the Applicant, its successors, transferees, and assignees, and the person or persons whose signatures appear below are authorized to sign this assurance on behalf of the Applicant.

Dated _____1/13/67

Suburban School Services Joint Board (Applicant)

6425 West 33rd Street

St. Louis Park, Minnesota 55426 (Applicant's mailing address) (President, Chairman of Board, or comparable authorized official)

Luther Ford, Chairman

HEW-441 (12-64)

AUTHORIZATION AND APPOINTMENT OF

AUTHORIZED REPRESENTATIVE OF

APPLICANT AGENCY

I, Luther Ford , hereby certify tha	t
Harold R, Enestvedt	61910
has been duly authorized by the governing body of the applicant agency	9
Suburban School Service Joint Board, to file this application (Title	
III, P.L. 89-10, "Total Information For Education Systems")	
for and in behalf of said applicant, and otherwise act as the auth-	
orized representative of the applicant in connection with this appli-	

cation.

DATE: January 13, 1967 BY: Juille H

BY: Julie Jord Chairman,

TITLE

Suburban School Service Joint

Board

MEMORANDUM OF AGREEMENT

This <u>MEMORANDUM OF AGREEMENT</u> entered into this <u>5th</u> day of <u>November</u> 1965 by and between <u>INDEPENDENT SCHOOL DISTRICTS NOS.</u> 271, 273, 274, 280 and 283, Hennepin County, Minnesota (said parties being hereinafter generally referred to as "the school districts"),

WITNESSETH THAT:

WHEREAS the school districts are organized for the purpose of providing public school education for persons within their geographical boundaries, and

WHEREAS Congress has enacted on April 11, 1965, certain legislation known as "Elementary and Secondary Education Act of 1965", Public Law 89-10, 79 Stat. 27 (20 U.S. Code Annotated Sec. 821, et seq.) (hereinafter called "the act"), and

WHEREAS each of the school districts is entitled to apply for certain benefits under the act but all of the school districts believe that they may make better use of the materials and services which they may obtain under the act if they act jointly and cooperatively to obtain such benefits and to distribute them to the teachers and pupils resident within their geographical boundaries.

NOW, THEREFORE, each of the parties hereto hereby agrees with the other parties hereto as follows:

1. The school districts shall jointly and cooperatively act pursuant to the broad authority contained in Section 471-59, Minnesota Statutes, to obtain the benefits to which they are or may become entitled under the act. Nothing contained herein shall prevent any party hereto from applying separately for any benefits to which it may believe itself to be entitled under any provisions of the act.

Organization and Operation of Joint Board

Purpose

Agreement

of

2. In furtherance of the purpose of this agreement the school districts shall cause to be organized a joint board pursuant to said Chapter 744, 1965 Laws, wherein each school district shall be represented by the Chairman of its school board and its Superintendents of Schools, such Chairman and Superintendent acting <u>ex officio</u> so that the persons who shall be acting from time to time as Chairman and Superintendent of Schools, respectively, shall be the representatives of each school district on such joint board without formal election thereto. (In lieu of its Chairman, a school board may designate any other director as its representative.) Such joint board shall have the following rights, powers and privileges:

- A. At its first meeting, to elect a chairman, a clerk and a treasurer, who shall serve until the first annual meeting of the joint board. Thereafter such officers shall be elected each year at the annual meeting of the joint board. The time of annual meetings, and other meetings of the joint board, shall be specified in the by-laws.
- B. To adopt by-laws, establish a separate bank account, complete an organization and formulate such other operating rules and procedures as may be useful, desirable and necessary to permit it to function as an entity separate and apart from any of the school districts. Such joint board may operate under the name and be known as "Suburban School Service Joint Board."
- C. To disburse funds to carry out its purposes in the manner provided by law for the disbursement of funds by independent school districts of the state of Minnesota. Contracts let and purchases made by the joint board shall conform to the requirements applicable to contracts and purchases of independent school districts of the state of Minnesota. Funds of the joint board shall be accounted for, and reports on all receipts and disbursements shall be made, in the manner applicable to independent school districts of the state of Minnesota.
- D. To make application for supplementary educational materials and services under Title III of the act and under any other provisions of the act or any Federal or state legislation which may now be in existence or may be enacted hereafter by the Congress of the United States or by the State of Minnesota for the benefit of the school districts and the teachers and pupils resident therein.
- E. To employ such persons, purchase such materials and supplies, lease, purchase or build facilities to adequately store and distribute and/or provide educational materials and services, enter into all necessary contracts to accomplish the purposes of the school districts hereunder and generally to act for the best interests of the school districts in furtherance of their interests under the act and the laws of Minnesota as may be necessary from time to time hereafter.

- F. To create advisory committees representative of the residents of the school districts and cultural and educational resources thereof so that the general purposes and requirements of the act may be accomplished.
- G. To cause the joint board to be incorporated under appropriate Minnesota laws in the event incorporation is deemed legally permissible and desirable by the members thereof.

3. No school district shall have any liability for any acts of the joint board or its employees or agents or for the debts thereof. It is contemplated and expected that any investment of funds made by the school districts toward the organization of the joint board and the commencement of its functioning shall ultimately be reimbursed to it from funds made available to it under the act so that no school district shall have any permanent investment hereunder.

4. Any school district may withdraw from this agreement and cause any representative of such school district serving as a member, officer, employee or agent of the joint board to cease to function in such capacity upon thirty (30) days written notice given to all of the other school districts party hereto, such notice to be accompanied by a certified copy of the appropriate resolution of the school board of such school district authorizing and directing such withdrawal of such school district. Any such withdrawal by a school district shall be effective at the end of the current school year.

5. Other school districts located in Hennepin County, Minnesota, may become a party hereto and may participate in the activities of the joint board upon such terms and conditions as the parties hereto may unanimously approve.

6. Title to all property acquired by the joint board shall remain in it until dissolution of the joint board shall occur.

7. This agreement shall continue in force until the majority of the school districts than participating in the joint board mutually agree to dissolve to joint board.

8. Upon dissolution of the joint board, all of its property shall be divided among all school districts which have at any time been members of the joint board or among the remaining members of the joint board as a majority of the members of the joint board at the time of such dissolution may determine in its discretion.

IT WITNESS WHEREOF the parties have caused this instrument to be executed upon the date first above written.

Non-Liability of School Districts

Withdrawal by any School District

Addition of Parties

Title

Termination of Agreement

Distribution

of Property

Dissolution

Upon

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INDEFENDENT SCHOOL DISTRICT NO. 273, HENNEPIN COUNTY, MINNESOTA

By Frach Superintent

INDEPENDENT SCHOOL DISTRICT NO. 271, HENNEPIN COUNTY, MINNESOTA

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HENNEPIN COUNTY, MINUSOTA NO, 283,

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HENNELIN COUNTY, MINNESOTA INDEFENDENT SCHOOL DISTRICT NO. 280,

Jnabhajniraguz ajl βλ

HENNELIN COUNTY, MINNESOTA INDEPENDENT SCHOOL DISTRICT NO. 274,

Chapter 744 - S.F. No. 918

An act relating to the joint or cooperative exercise of powers by cities, villages, boroughs, counties, towns, school districts, other political subdivisions of the state, the State of Minnesota and the United States; amending Minnesota Statutes 1961, Section 471. 59, Subdivisions 1,2, and 3.

Be it enacted by the Legislature of the State of Minnesota:

Section 1. Minnesota Statutes 1961, Section 471. 59, Subivision 1, is amended to read:

471. 59. Cities and towns; joint exercise of powers. Subdivision 1, Agreement. Two or more governmental units, by agreement entered into through action of their governing bodies, may jointly or cooperatively exercise any power common to the contracting parties or any similar powers, including those which are the same except for the territorial limits within which they may be exercised. The agreement may provide for the exercise of such powers by one or more of the participating governmental units on behalf of the other participating units. The term "governmental unit" as used in this section includes every city, village, borough, county, town, and school district, and other political subdivision of this or any adjoining state, and any agency of the State of Minnesota or the United States.

Section 2. Minnesota Statutes 1961, Section 471.59, Subdivision 2, is amended to read:

Subd. 2. Agreement to state purpose. Such agreement shall state the purpose of the agreement or the power to be exercised and it shall provide for the method by which the purpose sought shall be accomplished or the manner in which the power shall be exercised. When the agreement provides for use of a joint board, the board shall be representative of the parties to the agreement. Irrespective of the number, composition, terms, or qualifications of its members, such board is deemed to comply with statutory or charter provisions for a board for the exercise by any one of the parties of the power which is the subject of the agreement.

Section 3. Minnesota Statutes 1961, Section 471,59, Subdivision 3, is amended to read:

Subd. 3. Disbursement of funds. The parties to such agreement may provide for disbursement from public funds to carry out the purposes of the agreement. Funds may be paid to and disbursed by such agency as may be agreed upon, but the method of disbursement shall agree as far as practicable with the method provided by law for the disbursement of funds by the parties to the agreement. <u>Contracts let and purchases made under the agreement shall</u> conform to the requirements applicable to contracts and purchases of any one of the parties, as specified in the agreement. Strict accountability of all funds and report of all receipts and disbursements shall be provided for. Resolved that Independent School District______, State of Minnesota hereby

- Joins with other school districts of the Metropolitan Area to establish a cooperative data processing system and services;
- 2. Designates the superintendent to carry out proper contractual agreement between the school district and the cooperative data processing system and to pay the service fees as adopted by the cooperative educational data processing system governing board;
- 3. Authorizes the cooperative data processing system to seek funds for development under Title III, Public Law 89-10 by January 15, 1967.

Chairman of the Board

Clerk of the Board

Board ____

<u>ABSTRACT</u>

COORDINATED DATA PROCESSING PROJECT

by

EDUCATIONAL RESEARCH AND DEVELOPMENT COUNCIL OF THE TWIN CITIES METROPOLITAN AREA, INC. 211 BURTON HALL UNIVERSITY OF MINNESOTA MINNEAPOLIS, MINNESOTA 55455

* * * * * * * * * * *

This project was undertaken by E.R.D.C. and involved 45 public and private schools to plan for coordinated data processing services. The technical feasibility of providing data processing services was assumed at the outset. The study was very broad with respect to the services that were considered. These included instructional uses.

Considerable emphasis was placed upon inclusion of in-service activities for school personnel in connection with the planning and thus the questionnaires for data collection contained considerable explanatory material concerning the nature of a potential data processing services. Additionally several in-service seminars were held for school personnel.

Personnel from each school system were asked to indicate in the questionnaires the relative benefit of the many applications that could be provided them. Such a numerical value became an important criterion in later determining the priorities for offering of services.

The findings from the questionnaires indicated that approximately 220,000 K-12 public school students and 71,000 Catholic parochial school students could be considered for near term involvement in an operational project. The only significant utilization of data processing equipment or service by the above schools involved less than 45,000 secondary students in scheduling and mark reporting. Substantial needs were indicated for instructional uses of computers, particularly in mathematics and business education curriculum. Teachers indicated strongly the need for curriculum development and in-service education in connection with instructional uses.

If schools with an aggregate population of 100,000 agree to participate in an operational project, this report recommends that a grant application be submitted under P.L. 89-10, Title III by January 15, 1967. The report recommends that personnel, equipment and facility be acquired by and under the control of the participating schools.

The comprehensive services to be offered would fall in four general information systems: (1) Student; (2) Administrative/Finance; (3) Materials; (4) Instructional Uses.

Students would have certain sub-systems: (a) scheduling; (b) mark reporting; (c) attendance; (d) guidance; (e) census/elementary; (f) research. Administrative/Finance would include: (a) employee information; (b) accounts payable; (c) appropriation and budgetary; (d) property records; (e) purchasing and inventory; (f) transportation; (g) food service; (h) maintenance. Materials would have two sub-systems, library and audio-visual. Instructional uses would focus on curriculum development for mathematics and business education as a first priority and subsequently on social studies and science. All of the above activities would have extensive in-service education associated with them.

Four staff consultants for each of the four subjects areas are planned. Additionally, staff consultants are provided for in advanced computer related instruction, educational research and materials information systems.

Systems design activities are recommended to focus on integrated (or total) information systems so that components fit together. Systems design is also to incorporate the development of electronic student records, education research, functional accounting systems and decentralized budgetary systems.

Initial services are scheduled for offering in early fiscal 1969. They would include employee information, scheduling, mark reporting, attendance, guidance and test scoring and analysis. Beginning with fiscal 1970 appropriation and budgetary accounting would be offered and involve the use of communication lines and terminals for account status inquiries. The plan also calls for the initial instructional uses in September of 1969, though that could occur at an earlier date. Other services would be offered in 1969 and subsequent years.

Annual membership dues based on student population are recommended as a means of financing the project. Different dues schedules would be in effect for different types of schools. The dues would escalate from fiscal 1967 to 1972 as follows:

Public K-12	\$.75 to \$5.00
Non Public 1-8	.27 to 1.80
Non Public 9-12	.73 to 4.85

The report also recommends that schools joining after fiscal 1967 pay back dues or a prorata share of the development costs as determined by the governing body. Schools would also incur certain on-premise expenses for their coordinator, keypunch personnel, equipment, etc.

A summarization of forecasted dues income through 1972 is set forth below and assumes that 205,000 K-12 public students would be in the project by that year. A similar summary of expenses is indicated as is deficit/ surplus.

	terret title og settet file settet i som	Fiscal	Years (thousands	ommitt	ed)
	1967	1968	1969	1970	1971	1972
Forecasted expenses	\$ 74	\$444	\$746	\$906	\$ 94 6	\$1,055
Forecasted Dues Income	83	143	<u>405</u>	605	<u>965</u>	1,080
Surplus/Deficit	9	(301)	(341)	(301)	19	25

It is anticipated that P.L. 89-10, Title III would be a source of funds to cover the deficit.

Any material delay in starting systems design activities after March 1967 is likely to delay services by approximately one year.

Further information on this project may be found in:

- 1. <u>A Prospectus: Total Information for Educational Systems</u> by the Educational Research and Development Council of the Twin Cities Metropolitan Area, Inc.
- 2. <u>Final Report: Data Processing Planning Study</u> by Broeker Hendrickson and Company, and the Educational Research and Development Council of the Twin Cities Metropolitan Area.

Both publications are available from the office of your school superintendent upon request.



STATE OF MINNESOTA DEPARTMENT OF EDUCATION CENTENNIAL OFFICE BUILDING ST. PAUL, MINN. 55101

January 4, 1967

Dr. Van D. Mueller Executive Secretary, ERDC College of Education University of Minnesota Minneapolis, Minnesota 55455

Dear Dr. Mueller:

I support your application for funds for a Data Processing program in the following manner.

1. A project involving schools in the metropolitan area would be great assistance to the State Deaprtment of Education of Minnesota and to the Midwestern States Educational Informational Project as these efforts to develop an Information System progress.

2. An effort such as this should result in the analysis of educational problems not before possible.

3. This effort could be a unique one in terms of bringing together the common needs of public and non public schools.

4. The development of data processing efforts at local schools is greatly beneficial in building an integrated system for a state and region.

I will be glad to serve in any capacity that would be valuable to you as the project develops.

Sincerely, 1221 James Scamman State Coordinator

JPS/gh



SUPER VALU STORES, INC. 101 JEFFERSON AVENUE SOUTH HOPKINS, MINNESOTA 55343 TELEPHONE 938-3561/AREA 612

December 23, 1966

Dr. Van D. Mueller, Executive Secretary Educational Research and Development Council College of Education University of Minnesota Minneapolis, Minnesota 55455

Dear Dr. Mueller:

As a member of the advisory committee of the cooperative data processing planning study, I must go on record that I feel it is imperative that the Educational Research and Development Council apply for funds under Title III Elementary and Secondary Education Act for the establishment of an educational data processing program.

It is apparent that if the Twin Cities Metropolitan Area intends to continue providing the youth of this area with the highest standards of education, that action must be taken now to implement this program.

Sincerely,

R. R. Koenig Director of Methods & Research

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Press of Los Institute Microsofts, Microsofte - 35416

January 5, 1967

Mr. Van D. Mueller, Executive Secretary Educational Research and Development Council of the Twin Cities Metropolitan Area, Inc. College of Education University of Minnesota Minneapolis, Minnesota 55455

Dear Mr. Mueller:

I am a bit late in replying to your letter of the 22nd of December but hope this will be helpful.

I was a member of the advisory committee for establishment of a data processing program under Title 3, as you know, and watched the feasibility study with a great deal of interest.

I believe that the establishment of a data processing center as recommended by the study will be a great boon to the participating school districts, and hope that all the eligible districts will elect to participate as quickly as possible.

This program will allow much more extensive services of a higher quality than the districts have been able to provide themselves. Of course this is obviously true on some routine matters such as accounting, census, and class assignments. But there will be great advantages also if such a center can be tied offectively into curriculum.

I recommended this to the St. Louis Park schools, which I represent, and its board voted unanimously to participate.

Sincerely,

Adapted in Miller 1

Andrew Hobart President

AH:hm

ST. PAUL, MINNESOTA 55101 COLLEGE OF ST. THOMAS

COMPUTING CENTER

Mr. Van D. Mueller Fducational Research and Development Council University of Minnesota Minnespolis, Minnesota Stiff

Dear Mr. Mueller:

of an Educational Data Processing Program for the Twin-City area. I feel that this is urgently needed and can be of great benefit to education not only in the immediate area but throughout the state and throughout the midwest.

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James Lindsay, Director

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BUREAU OF EDUCATION ARCHDIOCESE OF SAINT PAUL 240 SUMMIT AVENUE SAINT PAUL, MINNESOTA 55102 222-2506

OFFICE OF THE SUPERINTENDENT

December 23, 1966

Dr. Van D. Mueller Associate Executive Secretary E.R.D.C. 203 Burton Hall University of Minnesota Minneapolis, Minnesota 55455

Dear Doctor Mueller,

I wish to thank you for the opportunity afforded the Catholic Schools of the Archdiocese of St. Paul and Minneapolis to participate in the planning of the proposed Coordinate Data Processing Center to serve the schools of the Metropolitan Area.

Five of our schools were visited to see how the center could serve them and all of the schools were given a copy of the final report so that they could participate in the total Information for Educational System if they so desire.

It has been a pleasure to work with your group and I hope that your proposal will be favorably received.

Sincerely yours,

Comole

Rt. Hev. Msgr. R. J. Connole Superintendent of Schools

RJC: and



2051 EAST LARFENTEUR AVENUE ATOSENNIM, 9 JUAG TNIAS

THE CHRISTIAN BROTHERS

5 PRING 7-1376

December 28' 1966

Mr. Van D. Mueiler Executive Secretary Educational Research and Development Council University of Minnesota Minneapolis, Minnesota

Dear Mr. Mueller:

I am grateful to you for your consideration of us throughout the planning of your program. Your work is certainly most thorough, and I am sure that your findings are most valid.

. However, as far as our commitment is concerned, I do not believe that Hill High School will participate in the program. The reason is almost entirely a financial consideration.

But again, I do thank you for your attention to our school. And I wish you success as you pursue your project.

Sincerely yours,

BROTHER E. LOUIS, F.S.C. The and the and the

Director

WHITE BEAR LAKE AREA PUBLIC SCHOOLS

DR. FRED J. ROHDE ASST, SUPERINTENDENT SECONDARY EDUCATION OFFICE SUPERINTENDENT OF SCHOOLS 709 BLOOM AVE.

WHITE BEAR LAKE, MINNESOTA, 55110

December 29, 1966

Dr. Van D. Mueller, Executive Secretary Educational Research and Development Council College of Education University of Minnesota Minneapolis, Minnesota 55455

Dear Dr. Mueller:

As a member of your Advisory Committee, representing the Commission on Administration for the ERDC, and being actively engaged as a practicing administrator in one of the pilot schools used in the questionnaire sample, I want to heartily endorse the proposed Title III Project.

You can expect our continued cooperation and support in the implementation phase.

Our Board of Education has already approved the purposes of the project and funds for participation.

There is a definite need in Minnesota for a Coordinated Educational Data Processing Service for the public and non-public schools.

Sincerely,

Fred J. Rohde

FJR:sd

ACTIVITY SCE JLE

TOTAL PROJECT DURATION: 59 MONTHS

1/1/67 - 12/1/71

Acti Identif	vity ication	Description	Dura- tion	Man Months	Scheduled Start	Scheduled Completion
2	4	Submit Grant Application	•5		1/1/67	1/15/67
4	10	Determine Organizational Entity	3		1/15/67	5/1/67
4	6	Arrange Initial Employing Entity	•5		1/15/67	2/1/67
4	16	Acquire Initial Facilities	•5		1/15/67	2/1/67
4	12	Begin Recruitment of Personnel	•5		1/15/67	2/1/67
4	14	Acquire Initial Equipment	•5		1/15/67	2/1/67
4	8	Receive Approval	3.5		1/15/67	5/1/67
4	18	Prepare EDP Specs	2.5		1/15/67	4/1/67
4	34	Form Committee on Mat Information Sys	1.5		1/15/67	3/1/67
4	36	Form Committee on Student Information				
		System	1.5		1/15/67	3/1/67
4	38	Form Committee on Administrative Financial				
		Sys	1.5		1/15/67	3/1/67
6	16	Receive Advance Payment	1		2/1/67	3/1/67
16	36	Hire Research Consultant	1		2/1/67	3/1/67
16	30	Hire Initial Systems Programming Staff	1		2/1/67	3/1/67
ctivity tification	Description	Dura- tion	Man Months	Scheduled Start	Scheduled Completion	
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108	Program Census	19	23	1/1/68	8/1/69	
58	Program Test Score	8	12	2/1/68	10/1/68	
114	Program Mark Reporting	6	12	2/1/68	8/1/68	
116	Program Guidance	7	17	2/1/68	9/1/68	
26	Hire Initial Operations Pers	1		4/1/68	5/1/68	
28	Hire Initial Service Conversion Pers	l		4/1/68	5/1/68	
150	Install Initial EDP Equipment	1		5/1/68	6/1/68	
166	Implement Employee Infor	42	8	6/1/68	12/1/71	
50	SD Mathematics	4	4	7/1/68	.11/1/68	
122	Implement Attendance	40	4	8/1/68	12/1/71	
126	Implement Mark Reporting	40	4	8/1/68	12/1/71	
128	Implement Guidance	39	7	9/1/68	12/1/71	
78	Curriculum Development ADV. CRI	10	11	9/1/68	7/1/69	
68	Implement Test Score	38	8	10/1/68	12/1/71	
52	CD & SD Business Education	4	7	10/1/68	3/1/69	
154	Program Appropr & Budgetary	8	17	10/1/68	6/1/69	
124	Implement Scheduling	37	6	11/1/68	12/1/71	
60	Program Mathematics	8	15	11/1/68	7/1/69	
82	SD Library	3	3	12/1/68	3/1/69	
84	SD Audio Visual	3	3	12/1/68	3/1/69	
	ctivity tification 108 58 114 116 26 28 150 166 50 122 126 128 78 68 52 154 124 60 82 84	tititigDescription108Program Census58Program Test Score114Program Mark Reporting116Program Guidance26Hire Initial Operations Pers28Hire Initial Service Conversion Pers150Install Initial EDP Equipment166Implement Employee Infor50SD Mathematics122Implement Attendance126Implement Guidance78Curriculum Development ADV. CRI68Implement Test Score52CD & SD Business Education154Program Appropr & Budgetary124Implement Scheduling60Program Mathematics82SD Library84SD Audio Visual	ctivity tiffcationDescriptionDura- tion108Program Census1958Program Test Score8114Program Mark Reporting6116Program Guidance726Hire Initial Operations Pers128Hire Initial Service Conversion Pers1150Install Initial EDP Equipment1166Implement Employee Infor4250SD Mathematics4122Implement Attendance3978Curriculum Development ADV. CRI1068Implement Test Score3852CD & SD Eusiness Education4154Program Appropr & Budgetary8124Implement Scheduling3760Program Mathematics882SD Library384SD Audio Visual3	clivity tificationDescriptionDura- Man tionMan Months108Program Census192358Program Test Score812114Program Mark Reporting612116Program Guidance71726Hire Initial Operations Pers1128Hire Initial Service Conversion Pers11150Install Initial EDP Equipment11166Implement Employee Infor42850SD Mathematics44122Implement Attendance404126Implement Guidance39778Curriculum Development ADV. CRI101168Implement Test Score38852CD & SD Business Education47154Program Appropr & Budgetary817124Implement Scheduling37682SD Library3384SD Audio Visual33	ctivity tificationDescriptionDura- MantheMan Start108Program Census19231/1/6858Program Test Score8122/1/68114Program Mark Reporting6122/1/68116Program Guidance7172/1/6826Hire Initial Operations Pers14/1/6828Hire Initial Service Conversion Pers14/1/68150Install Initial EDP Equipment15/1/68166Implement Employee Infor4286/1/68122Implement Attendance4048/1/68123Implement Attendance3979/1/68124Implement Guidance3979/1/68125CD & SD Business Education4710/1/68154Program Appropr & Budgetary81710/1/68124Implement Scheduling37611/1/68125SD Library3312/1/68	

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Act: Identi	ivity fication	Description	Dura- tion	Man Months	Scheduled Start	Scheduled Completion
44	98	Systems Design Attendance	8	8	3/1/67	11/1/67
44	104	SD Guidance	11	13	3/1/67	2/1/68
46	134	SD Employee Information	8	13	3/1/67	11/1/67
18	22	Evaluate Proposals	3		4/1/67	7/1/67
44	100	SD Scheduling	6	6	5/1/67	11/1/67
44	96	SD Census Elem	7	19	6/1/67	1/1/68
4	32	Form Committee on Instructional Uses	1.5		6/15/67	8/1/67
22	24	Select EDP Equipment Manufacturer	0		7/1/67	7/1/67
24	28	EDP Equipment Delivery	12		7/1/67	7/1/68
10	20	Receive Grant Monies	l		7/1/67	8/1/67
16	32	Hire Other Consultants	1		7/1/67	8/1/67
40	48	SD Test Score	6	6	8/1/67	2/1/68
44	102	SD Mark Reporting	6	6	8/1/67	2/1/68
20	184	Continued Project Operations	51		8/15/67	12/1/71
98	110	Program Attendance	9	10	11/1/67	8/1/68
100	112	Program Scheduling	10	19	11/1/67	11/1/68
134	150	Program Emp Information	7	17	11/1/67	6/1/68
46	138	SD Appropr & Budgetary	10	13	12/1/67	10/1/68

Acti <u>Identií</u>	ivity fication	Description	Dura- tion	Man Months	Scheduled Start	Scheduled Completion
46	144	SD Transportation	9	9	5/1/70	2/1/71
46	146	SD Maintenance	б	6	6/1/70	12/1/70
46	148	SD Food Service	6	6	6/1/70	12/1/70
118	130	Implement Health	· 17	2	7/1/70	12/1/71
46	142	SD Purch & Inventory	4	12	8/1/70	12/1/70
46	140	SD Property	4	4	9/1/70	1/1/71
142	158	Program Purch Inventory	7	18	12/1/70	7/1/71
146	162	Program Maintenance	7	9	12/1/70	7/1/71
148	164	Program Food Service	7	9	12/1/70	7/1/71
140	156	Program Property	6	6	1/1/71	7/1/71
144	160	Program Transportation	6	11	2/1/71	8/1/71
162	178	Implement Maintenance	5	3	7/1/71	12/1/71
164	180	Implement Food Service	5	3	7/1/71	12/1/71
156	172	Implement Property	5	2	7/1/71	12/1/71
158	174	Implement Purch & Inventory	5	7	7/1/71	12/1/71
160	176	Implement Transportation	4	5	8/1/71	12/1/71
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Act Identi	ivity fication	Description	Dura- tion	Man Months	Scheduled 	Scheduled Completion
46	136	SD Accounts Payable	2	3	1/1/69	3/1/69
136	152	Program Accounts Payable	2	4	3/1/69	5/1/69
52	62	Program Business Education	4	13	3/1/69	7/1/69
82	86	Program Library	4	4	3/1/69	7/1/69
84	88	Program Audio Visual	4	4	3/1/69	7/1/69
152	168	Implement Accounts Payable	31	3	5/1/69	12/1/71
40	54	SD & CD Science	2	3	5/1/69	7/1/69
154	170	Implement Appropr & Budgetary	30	7	6/1/69	12/1/71
40	56	SD & CD Social Studies	l	1	6/1/69	7/1/69
60	70	Implement Mathematics	29	19	7/1/69	12/1/71
62	72	Implement Business Ed	29	17	7/1/69	12/1/71
54	64	Program Science	2	3	7/1/69	9/1/69
56	66	Program Social Studies	2	4	7/1/69	9/1/69
86	90	Implement Library	29	2	7/1/69	12/1/71
88	92	Implement Audio Visual	29	2	7/1/69	12/1/71
108	120	Implement Census Elem	28	14	8/1/69	12/1/71
66	76	Implement Social Studies	27	5	9/1/69	12/1/71
64	74	Implement Science	27	5	9/1/69	12/1/71
44	106	SD Health	2	3	2/1/70	4/1/70
106	118	Program Health	3	4	4/1/70	7/1/70

	Man Months Pre- ceding Initial Imple-	Man Months Pre- ceding Initial Imple-	Total Man Months			SYSTI	EMS/H	PROGI	RAMMI	NG F	ERSO	NNE]	L SCI	HEDU	LE	(See	Leger	nd Pa	age I	137)							
Sub-System	tion	menta- tion	Esti- mated					F٦	r 196	9										FY	197	0					
Test Scoring	A	В	С	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb 1	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
& Analysis	18	8	26	lP	ЗP	3P		2								2	2	l	l								
Math	19	19	38	lS	lS	lS	lS	lP	lP	lP	2P 2	2P	2P	ЗP	ЗP	2	2	2	2	2	2	1	1	1	l	2	1
Bus Ed	19	17	36				lS	lS	lS	lS	3s (3P	ЗP	ЗP	3P	1P	2	2	2	2	2	l	1	l	1	1	1
Science	6	5	11											1S	2S	2P	1P			1	1	1	1	1			
Soc Studies	5	5	10												1	2P	2P			1	1	1	1			l	
Advanced CRI	11		11			lS	lS	lS	1S	2S	1S (lS	lS	lS	lS												
Library	7	2	9						lS	lS	1S]	lP	lP	lP	lP			l	l								
Audio Visual	7	2	9						lS	lS	1S 3	lP	lP	lP	lP			l	l								
Census Elem	42	14	56	lP		lP	2P	2P	2P	2P	lP :	lP	lP	lP	lP	lP			2	2	2	2	2	2	2		
Attendance	18	4	22	lP			1	1	1	1.																	
Scheduling	25	6	31	lP	3P	4P	3P									2	2	2									
Mark Reptg	18	4	22	2P			1	l	l	1																	
Guidance	30	7	37	lP	lP		1	2	1							1	l	l									1
Health	7	2	9																						2S	2P	lP
Emp Info	30	8	38	2	2	l							ı														
A/P	7	3	10							lS	2S 3	2P	2P							1	1	1					
Approp & Budg	g 30	7	37	2S	2S	2S	2P	2P	ЗP	2P	2P 3	2P	2P	2P								1	1	1	l	1	1
Property	10	2	12																								
Purch & Inv	30	7	37																								
Trans	20	5	25																							lS	lS
Maint	15	3	18																								1S
Food Serv	15	3	18										-1								~~~~						15
Total Man Utilization	309 1	133	222	12	12	τζ	13	τζ	τζ	ΤÇ	τζ.	τζ	Τζ	τζ	13	13	75	TÜ	9	9	9	7	Ø	8	7	7	7
Per Month	75%	25%	100%																								

	Man Months Preceding	Man Months Following	SYSTE	MS/PF	ROGRAN	MMIN	IG PI	ERSO	NNEL S	SCHEDULE	<u>.</u>										
Sub-System	Initial Implemen- tation	Initial Implemen- tation	Total Man Months <u>Estimated</u>		FY	Y 19	967							FY	196	8					
Test Scoring	A	В	С	Jan	Feb N	Mar	Apr	May	Jun	July	· Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
& Analysis	18	8	26								lS	lS	lS	lS	lS	lS	lP	lP	lP	lP	lP
Math	19	19	38																		
Bus Ed	19	17	36																		
Science	6	5	11																		
Soc Studies	5	5	10																		
Advanced CRI	11		11																		
Library	7	2	9																		
Audio Visual	7	2	9																		
Census Elem	42	14	56						2S	3S.	3S	3S	3S	3S	2S	2P	lP	lP	lP	lP	lP
Attendance	18	4	22			lS	1S	lS	lS	lS	lS	lS	lS	lP	lP	lP	lP	2P	lP	lP	lP
Scheduling	25	6	31					lS	lS	lS	lS	lS	lS	lP							
Mark Reptg	18	4	22								lS	lS	lS	lS	lS	lS	2P	2P	2P	2P	2P
Guidance	30	7	37			2S	2S	lS	lS	1S	lS	lS	lS	lS	lS	lS	3P	3P	3P	3P	3P
Health	7	2	9																		
Emp Info	30	8	38		-	lS	lS	lS	2S	2S	2S	2S	2S	2P	2P	ЗP	2P	ЗP	3P	2P	3
A/P	7	3	10																		
Approp & Budg	30	7	37												lS	lS	2S		lS	15	lS
Property	10	2	12																		
Purch & Inv.	30	7	37																		
Trans	20	5	25																		
Maint	15	3	18																		
Food Serv	15	3	18															-			
Total Man Utilization	389 .	133 .	522			4	4	5	7	8	10	10	10	10	10	11	13	13	13	12	13
Per Month	75%	25%	100%																		

}

	Man Months	Man Months	SYSTE	MS/PR	OGRAI	MMIN	G PE	RSON	NEL	SCHE	DULE											
Sub-System	Preceding Initial Implemen- tation	Following Initial Implemen- tation	Total Man Months Estimated					F	Y 19	71								F	Y 19	972		
Test Scoring	А	В	С	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	• May	- Jun	. J	uly	Aue	g Sep	o Oct	; Nov	Dec
& Analysis	18	8	26																			
Math	19	19	38																			
Bus Ed	19	17	36																			
Science	6	5	11																			
Soc Studies	5	5	10																			
Advanced CRI	11		11																			
Library	7	2	9																			
Audio Visual	7	2	9																			
Census Elem	42	14	56																			
Attendance	18	4	22																			
Scheduling	25	6	31				•															
Mark Reptg	18	4	22																			
Guidance	30	7	37																			
Health	7	2	9	l	l																	
Emp Info	30	8	38																			
A/P	7	3	10																			
Approp & Budg	30	7	37	1																		
Property	10	2	12			lS	lS	lS	lS	lP	lP	lP	lP	lP	1P		1	1				
Purch & Inv	30	7	37		3S	3S	3S	3S	3P	3P	3P	3P	2P	2P	2P		2	2	1	l	1	
Trans	20	5	25	lS	lS	lS	lS	lS	lS	lS	lP	2P	2P	2P	2P		2P	2	2	1		
Maint	15	3	18	lS	lS	lS	1S	lS	lP	lP	lP	lP	lP	2P	2P		1	1	l			
Food Serv	15	3	18	lS	1S	lS	lS	1S	lP	lP	lP	lP	lP	2P	2P		l	1	1			
Total Man Utilization	389	133	522	5	7	7	7	7	7	7	7	8	7	9	9		7	7	5	2	1	
Per Month	75% ·	25%	100%																			

FORECAST OF MEMBERSHIP INCOME

FISCAL YEARS 1967 TO 1972

	,			Back I New M	Dues For embers			Income For	ecast for	the Fiscal	Year Ende	d
	Dues/P Yearly	upil <u>Cum.</u>	Schools Joining (Pupils)	Thous Basis	<u>. Omitted</u> Dollars	Cumulative Membership	1967	1968	1969	1970	1971	1972
Member	rship Du	es (K-12	2)									
1967	\$.75		110,000				\$82,500					
1968	•75	\$ 1.50	40,000	40 @	.75 =\$30	150,000		\$142,500				
1969	2.00	3.50	30,000	30@	1.50 =\$45	180,000			\$405,000			
1970	3.00	6.50	10,000	10 @	3.50 =\$35	190,000				\$605,000		
1971	4.50	11.00	10,000	10 @	6.50 =\$65	200,000					\$965,000	
1972	5.00	16.00	5,000	5@	11.00 =\$55	205,000						\$1,080,000
							<u>\$82,500</u>	<u>\$142,500</u>	\$405,000	<u>\$605,000</u>	<u>\$965,000</u>	\$1,080,000

FORECAST OF EXPENSES

	0 + s s +					FISCAI	L YEARS 196	7 to	1972						
	Start- ing Annual Salary	Star Numbe Perso	ting r of nnel	1.00		2.0	Expens	e For	recast for t	he Fi	iscal Year E	nded		-	070
Expense	Range + 10%	First No.	year म्प्रम्पन	9CL דידיד	Dollars	ट्र स्राप्त	Dollars	L जन्मन	.909 Dollars	ਸਾਸ	Dollars	ट्रम जन्म	Dollars	L जन्म	Dollars
Personnel Administration Director of Education Services	25,000	1		1	2 500	1	25,000	1	25,000	1	25,000	1	25,000	1	25,000
Derviceb	29,000	Ŧ		• エ	2,000		29,000	T	29,000	-	29,000	-	٥٥٥٥ در	-	2),000
Asst. Director of Educ. Svo	r es 20,000	l				l	20,000	l	20,000	l	20,000	1	20,000	l	20,000
Staff Consultant Educational Research	14,000	1		•3	4,200	1.0	14,000	1	14,000	1	14,000	1	14,000	l	14,000
Mathematics	14 000	٦				8	11 200	٦	14 000	٦	14 000	٦	14 000	1	14 000
	<u> </u>	-				••	11,200	-	±1,000	-	1,000	1	1,000	-	1+3000
Bus. Educ.	14,000	1				.8	11,200	1	14,000	1	14,000	1	14,000	1	14,000
Social Studies	s 14,000	l				•3	4,200	l	14,000	1	14,000	l	14,000	1	14,000
Science	14,000	l				•3	4,200	1	14,000	1	14,000	1	14,000	l	14,000
Advanced CRI	16,000	l				•3	4,200	l	16,000	1	16,000	1	16,000	l	16,000
Materials Info Sys	orm 14,000	1				•3	4,200	1	14,000	1	14,000	1	14,000	1	14,000
Systems/Programm Manager System Programming	ning ns 16,000	l								1	16,000	l	16,000	1	16,000
Systems Analys	sts 13,000	4	.4	1.6	20,800	4.	52,000	4	52,000	4	52,000	4	52,000	4	52,000

7	Start- ing. Annual Salary	Star Numbe Perse	rting er of onnel	106	7	10	60	1.04		1.05	20	7	רדי		20
Expense Classification	Range <u>± 10%</u>	No.	t Year <u>FTE*</u>	196 <u>FTE</u>	Dollars	19 <u>FTE</u>	Dollars	190 <u>FTE</u>	Dollars	197 FTE	Dollars	<u>FTE</u>	<u>Dollars</u>	197 <u>FTE</u>	Dollars
Programmers	9,000	2	•4	.8	7,200	6	54,000	6	54,000	6	54,000	l	54,000	6	54,000
Operations · Manager of Operations	12,000	l				•5	6,000	l	12,000	l	12,000	l	12,000	l	12,000
Computer/Machine Operators	8,000	1				.2	1,600	3	24,000	6	48,000	7	56,000	9	72,000
Keypunch Operators	5,000	1				•5	2,500	4	20,000	6	30,000	7	35,000	7	35,000
Transportation Personnel.	4,000	l				.1	400	1	4,000	3	12,000	3	12,000	4	16,000
Control Personne	14,500	1				1.	4,500	2	9,000	5	22,500	5	22,500	6	27,000
Librarian	5,000	l				.1	500	1	5,000	1	5,000	l	5,000	1.5	7,500
Secretary/Stenog grapher/Clerk	- 5,000	1		.4	2,000	2.0	10,000	2	10,000	4	10,000	4	20,000	6	30,000
Accountant	8,000	1				•5	4,000	•7	5,600	l	8,000	1	8,000	1	8,000
Services/Conversion Services Coordinators	n 13,000	l				•5	6,500	l	13,000	l	13,000	1	13,000	l	13,000
Conversion Coordinators	11,000	1						1	11,000	l	11,000	1	11,000	l	11,000
Assistant Conver sion Coordin- ator	- 9,000	1			36 700	•3	2,700	l	9,000	2	18,000	2	18,000	2	18,000
Annually 4% Salary A prior year unadjus	djustmen ted)	t (on					$\frac{1,470}{242,900}$		<u> </u>		14,900		<u>18,660</u>		<u>19,180</u>
Personnel Benefit Pr Adjusted salary)	ogram (9	% of			36,700		244,370		383,300 34,500		481,400		498,160		48,200
Total Personnel & Exp	enses			3.2	40,000	21.5	266,363	36.7	417,800	51	524,700	53	542,960	59.5	583,880

* Full Time Equivalent Personnel

Expense	196	57	19	68	196	59	197	70	1971		197	2
Classification	\underline{FTE}	Dollars	FTE	Dollars	FTE	Dollars	FTE	Dollars	<u>FTE</u> <u>D</u> o	ollars	FTE	Dollars
Hardware												
Rental of Data Center Time for testing/scheduling		-		10,000		10,000		15,000	:	18,000		20,000
Rental of Data Center Time for Instructional uses		-		7,500		7,500		15,000	2	25,000		50,000
Rental of On-Premises Equipment (Arrive May 1968)		-		17,500		108,000		115,000	12	20,000		125,000
Addition of Communication Capability (Arrive April 1969)		-				R 500		20,000				
						7,500		_30,000		35,000		40,000
Total Hardware Expenses				<u>35,000</u>		133,000		175,000	19	98,000		<u>235,000</u>

Expense	1	967	1968	1969	1970	1971	1972
Classification	Basis FTE	Dollars	FTE Dollars	FTE Dollars	FTE Dollars	FTE Dollars	FTE Dollars
Other Expenses							
Housing	\$4.50/sq ft incl.						
Hardware	heat,light,custodial & Maint. 2,500 sq ft. (17% for 1st yr. 2mo)	-	1,900	11,250	11,250	11,250	11,250
Personnel	150 sq ft per full '	870	14,500	24,770	34,425	36,375	40,165
Dues, Subscriptio	ns & Books	500	1,000	1,200	1,500	2,000	2,500
Printing/Binding							
Expenses	In-service publications, procedure manuals, newsletter, etc.	1,000	7,500	10,000	12,000	16,000	20,000
Postage Telephone Service	s	300	3,000	4,000	5,000	6,000	7,000
Conversation	\$300/per full time equiv. employee	960	6,450	11,000	15,300	15,900	17,850
Professional/ Consulting Service	Legal, auditing, accounti educational research, editorial, data processi	ng 15,000 ng	40,000	35,000	10,000	7,500	7,500
Travel	and curriculum developme \$300-/trip; 1.5 trips per annum per FTE	nt 1,440	9,675	16,500	22,950	23,850	26,775
Forms & Supplies	data processing forms principally	3,000	7,500	35,000	45,000	55,000	60,000
In-service education	Visiting lecturer's, site visits, space renta published material, clas room aids, etc.	2,000 1, s-	10,000	12,000	14,000	16,000	18,000
Recruiting/ Moving Expenses	\$1,000/incremental FTE	3,200	18,300	15,200	14,700	2,000	6,500
Freight		500	3,000	1,500	1,000	500	1,000
Operation of Transportation Vehicle	8¢ mile, 40,000 miles∕ yr., per trans. emp.			<u>.</u> 3,200	9,600	9,600	12,800

Expense		1967		1968		1969		1970		1971		1972	
<u>Classification</u>	Basis	FTE	Dollars	FTE	Dollars	FTE	Dollars	FTE	Dollars	FTE	Dollars	FTE	Dollars
Capital Expenditures	Leasehold improve- ments, desks, chair typewriters, dictat equipment, room dividers	ion	5,000		20,000		15,000		10,000		3,500		5,000
Total Other Expenses	41,114010		<u>33,770</u>		142,825		195,620		206,725		205,475		236,340
Total Expenses			<u>73,700</u>		<u>444,188</u>		<u>746,420</u>		<u>906,425</u>		<u>946,435</u>	-	L,055,220

BASIS OF MEMBERSHIP DUES FOR NON-PUBLIC SCHOOLS

A. 3	Data Processing Service	Public Price	Public <u>Basis K-12</u>	Total Costs Public K-12	Non-Public Price	Non-Public Basis 9-12	Total Costs Non-Public 9-12	Non-Public Basis 1-8	Total Costs Non-Public 9-12
1.	Secondary Student Info	\$3.50/Sec Pupil	7M	\$24,500	\$2.50	3,600	\$ 9,000	3,600	\$ 9,000
2.	Census Elem.	\$1.50/Elem Pupil	12M	18,000	.75	-	-	11,780	8,835
3.	Guidance	\$1/Sec. Pupil	7M	7,000	1.00	3,600	3,600	3,600	3,600
4.	Empl. Info.	\$12/Emp.	1,200	14,400	12.00	-	-		
5.	AP/ABA	.75/pupil	19,000	14,250	•75	-	-		
6.	Test Scoring	.20/test	4 tests/Sec pupil	5,600	.20	4 tests/Sec pupil	2,800	4 tests/Sec pupil	2,800
				\$83,750			\$15,400		\$24,2 <u>35</u>
в. :	Per Pupil Costs			4.41			4.28		1.58
с. :	Per Pupil Cost as a percent of public K-12 per pupil	age cost		100%			<u>97%</u>		<u>36%</u>

NOTE: The majority of the questionnaire content is explanatory or descriptive material. Please read the entire questionnaire before answering any of the questions.

NAME OF SCHOOL

PREPARED BY

POSITION

CENSUS

QUESTIONNAIRE

FOR

COORDINATED DATA PROCESSING SERVICES

PLANNING GRANT STUDY

ΒY

EDUCATIONAL RESEARCH & DEVELOPMENT COUNCIL

OF THE METROPOLITAN TWIN CITIES

VAN MUELLER - EXECUTIVE SECRETARY DONALD DAVIS - ASSOC. EXECUTIVE SECRETARY

Questionnaires prepared by:

Information Systems Consulting Staff Broeker Hendrickson & Co. Certified Public Accountants

PREFACE

This questionnaire is being distributed to all schools wishing to participate in the ERDC Coordinated Data Processing Services Planning Grant Study. You are asked to complete the questionnaire by July 29, 1966 and mail it to ERDC, 215 Pattee Hall, Minneapolis, Minnesota 55455. Two means for answering questions that you may have are provided for as follows:

- 1. You may call Darrel Gubrud at 336-2661.
- 2. A question and answer session is being held on July 21st from 1 - 5 PM at the Normandy Hotel with the following schedule:

Α.	Accounting applications	1:00	-	1:50	ΡM
Β.	Maintenance applications	2:00	-	2:20	PM
С.	Purchasing applications	2:30	-	2:50	PM
D.	Food service applications	3:00	euza	3:20	PM
E.	Transportation applications	3:30	-	3:50	PM
F.	Census applications	4:00		4:20	PM
G.	Personnel records applications	4:30	-	4:50	ΡM

COORDINATED DATA PROCESSING SERVICES

CENSUS

TABLE OF CONTENTS

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III.	RECENT DEVELOPMENTS IN DATA PROCESSING TECHNOLOGY	3
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I - INTRODUCTION

Beginning in 1964, the Educational Research and Development Council of the Metropolitan Twin Cities began giving attention to ways and means that member schools might benefit through the use of coordinated data processing services. In 1965, the Board of Directors asked that the Executive Secretary explore ways and means to undertake a study of coordinated data processing services. In the summer of 1965, the ERDC prepared a planning grant proposal for submission under Title III of Public Law 8910. It was understood from the outset that multiple schools could cooperate in the joint provision of data processing services. Certain cooperative facilities were already in operation in New England, Florida, and California. Thus, the question was not whether schools could cooperate or coordinate, rather how should they go about doing so. Questions that the planning grant was intended to answer included at least the following:

- 1. Should ERDC acquire a small staff of systems analysts and inservice training specialists to coordinate the data processing services schools could provide with their own equipment or through use of commercial data centers?
- 2. Should ERDC acquire a large staff and equipment in order to provide data processing services to member schools?
- 3. Could an existing data processing operation of a member school be expanded to provide services to other schools?
- 4. What types of data processing services or applications might benefit the schools?
- 5. What should be the general design or character of the services or applications that might be coordinated or provided?
- 6. What priorities should be given to the various applications or services?
- 7. When could or should certain services or applications be provided?
- 8. What would be the nature of the personnel, equipment and facility required to meet various needs?
- 9. What would be the cost of providing certain services and how should the overall operation be financed?

Because Public Law 8910 did not permit an organization like ERDC to submit the planning grant proposal, a joint board consisting of Richfield, Bloomington, Edina, St. Louis Park and Hopkins submitted the proposal. Upon approval of the planning grant application, the joint board contracted with ERDC to perform the study for <u>all</u> ERDC member schools and others that would wish to participate. Planning for the study was undertaken in February of 1966 upon approval by the US Office of Education. Because of the large number of schools that might participate in the study, it was determined that the most suitable form for data gathering would be a series of questionnaires.

In order to design a proper questionnaire, it was deemed necessary to find out what improvements were being sought by schools that data processing services could assist with. Thus, St. Anthony Village, Hill High, White Bear Lake and Bloomington were chosen as representative schools for the conduct of interviews. Two to four days were spent in each school system talking to a wide range of personnel and gathering appropriate information.

A series of seminars were also planned so that all schools wishing to participate in the study could learn more about the study and the findings as of the seminar date.

Certain of the questionnaires were completed prior to the end of the academic year. The balance were scheduled for the summer months.

Following the completion of all seminars and questionnaires in July, a comprehensive analysis of the data will be undertaken. This analysis will be designed to answer the various questions mentioned earlier in this introduction. Before the completion of this analysis, it may be necessary to conduct additional seminars and consultations with various personnel in the participating schools. Completion of a report with the findings of the study is planned for the fall of 1966.

II. PURPOSE OF QUESTIONNAIRE

This document is intended to do three things (1) gather certain information about the present information processing functions in your school, (2) briefly describe certain data processing services that might be provided, (3) obtain your benefit rating of each potential data processing service.

Provision has also been made in the questionnaire for you to add your thoughts with respect to matters not specifically covered by it.

III. RECENT DEVELOPMENTS IN DATA PROCESSING TECHNOLOGY

In recent years, computer technology has focused on improving the ease with which information could be entered and retrieved from a computer. Two major developments have contributed to this. The first development is that of improved random access memories that are considerably less costly than the first types developed. This meant that for the first time, large amounts of information could be economically stored and retrieved in a fraction of a second. Previously economical storage or retrieval of records took several minutes or perhaps hours. The second development was that of equipment permitting the attachment of telephone lines to the computer and of appropriate and economical terminals such as a teletype for the other end of the phone line. The teletype, of course, can be used to directly and quickly add information to existing records or to retrieve those same records for display whenever necessary.

The net affect of these technological developments is that schools could have an appropriate terminal or terminals in each building that are directly connected to a computer. This would permit information to be added or retrieved quickly; a highly advantageous feature with many data processing services that might be provided schools. These developments should be taken into account as you generate ideas for data processing services that may be beneficial to you or as you evaluate certain potential data processing services that are described in this questionnaire.

It should be borne in mind, however, that there are many data processing services that can function very well without the necessity of using telephone lines and terminals.

IV. GENERAL AND STATISTICAL DATA

It is not necessary that the data requested below be 100% accurate. Estimates that are within \pm 5% are acceptable. Use school year 1965-66 as a basis.

1. Please list the types of persons who function as enumerators i.e., teachers, college students, housewives, etc.

2. Please indicate the total number of enumerators involved in taking census.

- 3. Do you use a data processing center in connection with census or do you plan to do so by Sept. of 1968? (Please circle one)
- 4. Approximate annual cost of data center services presently utilized.
- 5. Name of data center presently utilized.
- 6. Estimated annual man days involved in tabulating and checking the census data once collected by the enumerators.

V. POTENTIAL COORDINATED DATA PROCESSING SERVICE

Below is a brief description of a potential data processing service in connection with Census. Other questionnaires distributed as part of the ERDC study have asked that a numerical benefit rating be indicated for each potential service. Such a rating is not required in connection with Census, however, we ask that you indicate on the "Other Comments" page your opinions and observations concerning Census service described.

This potential data processing service would involve creating a master record for each household and for each child within a household. Provision would have to be made for the usual data such as:

Yes No 1. Name.

2. Date of birth.

3. Sex.

4. Handicaps.

5. Attendance status.

6. Other relevant information.

Prior to the enumeration, a document could be printed for each household indicating all appropriate information pertaining to the household and the children. The enumerator would use this information as a basis for verification. Additional data could be recorded on the document in addition or in lieu of data already present.

There is also a possibility that certain health information might be beneficially gathered in the course of census taking rather than distributing forms to parents after the start of the school year. This could have the affect of making health information more accurate and up-to-date.

Following the completion of the enumeration, the additional or revised census data would be used to update the master records and tabulate the statistical reports required for internal use and by the State Department of Education.

The principal advantages associated with this potential service might be as follows:

- 1. A small reduction in the time required by the enumerator to verify or collect new information.
- 2. Substantial reduction in the time required to tabulate census data.
- 3. Accurate census data of the type described can form the basis of a series of applications for secondary and elementary student personnel and other allied applications. This may be the most significant benefit associated with this application.

OTHER COMMENTS

Make any other observations that you wish that were not provided for earlier.



UNIVERSITY OF MINNESOTA • 211 BURTON HALL • MINNEAPOLIS, MINNESOTA 55455 • 373-4860