

# State Plans for Improving Statistical Services

*Submitted by*

State Education Agencies  
Under Section 1009, Title X, Public Law 85-864

*Compiled by*

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HEALTH, EDUCATION, AND WELFARE  
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## Foreword

**T**HE INITIATION of the educational records and reports study by the Office of Education in 1951 marked a turning point in the Federal-State teamwork approach toward providing a basis for complete, accurate, and comparable educational information. In cooperation with State education agencies and professional groups, three major handbooks of standard terms and definitions have thus far been produced: Handbook I, *The Common Core of State Educational Information*; Handbook II, *Financial Accounting for Local and State School Systems*; and Handbook III, *Property Accounting for Local and State School Systems*. Two additional handbooks, one for pupil accounting and one for staff accounting, are in progress.

A second major turning point toward providing adequate and reliable educational information to meet local, State, and national needs came with the passage of the National Defense Education Act in 1958. Section 1009, title X of this Act, providing Federal funds for the improvement of State statistical services on a matching basis up to a \$50,000 annual maximum, has served as the stimulus for new, added, and expanded programs for statistical services in a majority of the State education agencies.

The activities underway in the several States under the program provisions of approved State plans indicate clearly that the State education agencies, utilizing the financial resources afforded under this Act, are responding with enthusiasm in making improvements which will serve as a firm basis for continued progress in statistical services. The critical evaluation of existing services and the development of long-range optimum plans; the strengthening of internal coordination of statistical services; the putting into use of standard terms and definitions; the development of programs for inservice training of State and local personnel; the major efforts toward improved and expanded analysis, interpretation, and dissemination of educational information; and the conversion to systems and procedures utilizing the newest technologies, including automatic data processing—all these activities, some of which are underway in every participating State, are making fundamental contributions to the ultimate goal of providing information when



needed and where needed for sound decision making for America's educational enterprise.

This compilation of summaries of State plan provisions and program activities during the first two years of the Act was undertaken in order that all those interested in the improvement of statistical services might have the benefit of noting the major program areas and the scope and depth of program activities. Amendments to State plans are also reviewed, since they reflect changes and expansions conditioned by the experiences gained in actual program operations.

During the remaining period of this 4-year Act the States will no doubt continue to build upon the strong beginnings made thus far. Although the task of developing a nationwide intercommunicating system of educational information cannot be accomplished under the modest provisions and the 4-year span of the Act, it may be confidently expected that the accomplishments and experience will serve as keystones for continuing progress.

The Office of Education sincerely appreciates the excellent cooperation of chief State school officers and personnel of their statistical services staffs who reviewed and approved materials for this publication.

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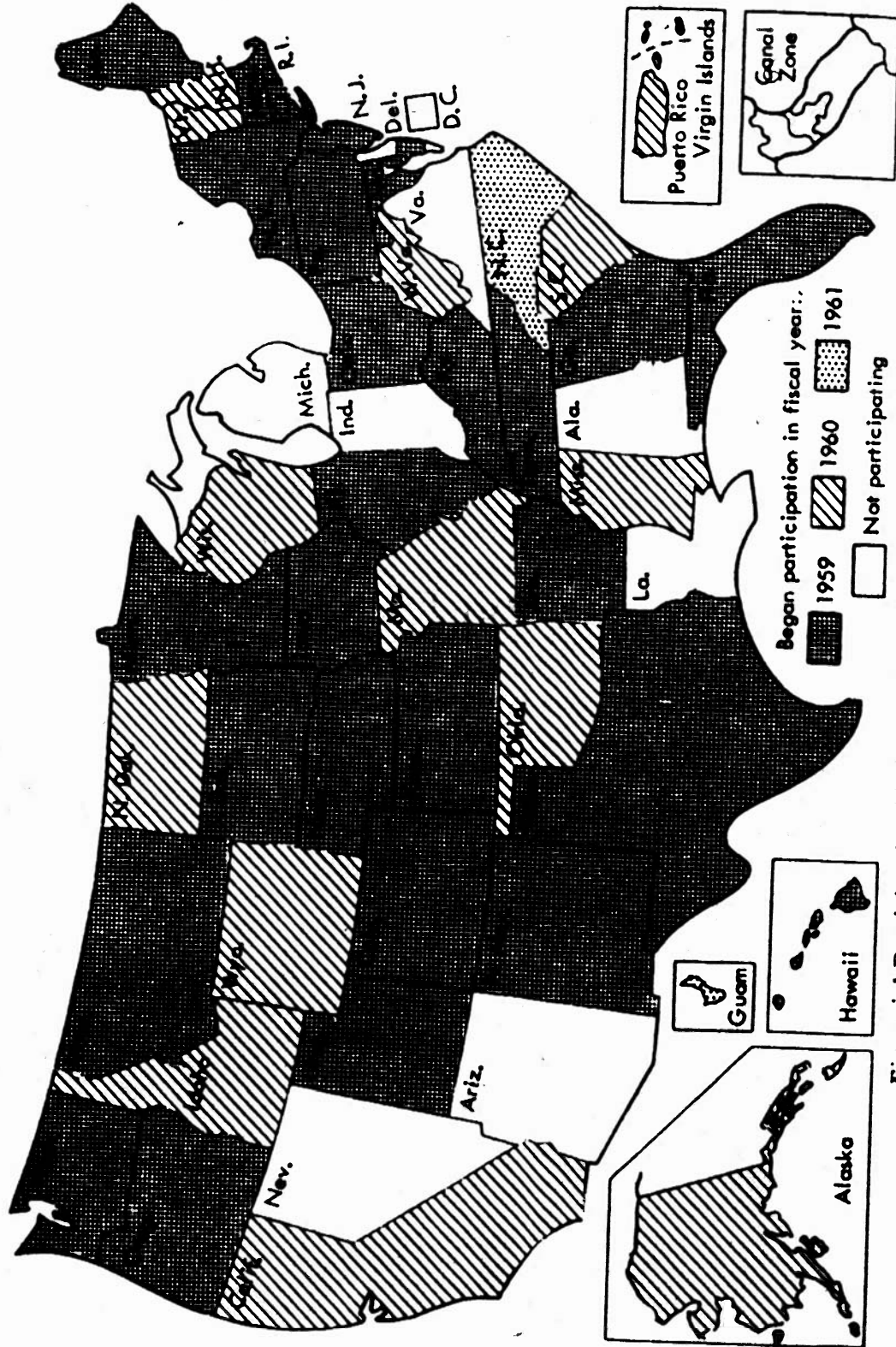
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Financial Participation Under Section 1009, Title X, by Fiscal Year

## Part I

# State Plans and Programs: An Overview

### The Background

That the Nation might have more adequate and timely statistics and facts on education, Congress included in the National Defense Education Act of 1958 a section providing funds to State departments of education for improving their statistical services. When it was established in 1867, the U.S. Office of Education was given the responsibility to collect and disseminate all types of statistical and factual information concerning education. To do this it is dependent upon intermediary systems of data collection, especially those maintained by State departments of education. Thus, these departments are called upon to provide statistics from their local districts on enrollment, teachers, finance, school facilities, transportation, curriculum, adult education services, and other phases of education. To supply such pertinent educational facts involves hundreds of man-hours in a State department of education often handicapped by lack of sufficient staff and necessary data processing equipment. Terms, definitions, and units of measurement for recording and collecting data have often varied from State to State, as well as from district to district, and thus have made comparable and reliable statistics difficult to obtain.

### The Act

Section 1009, title X, of the National Defense Education Act<sup>1</sup>—passed by Congress and approved on September 2, 1958—authorizes “such sums as Congress may determine” for annual grants to

<sup>1</sup> For full text of section 1009, title X, see appendix A, p. 197.

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the States over a 4-year period (starting in fiscal 1959) to assist the States to "improve and strengthen the adequacy and reliability of educational statistics provided by State and local reports and records and the methods and techniques for collecting and processing educational data and disseminating information about the condition and progress of education in the States."

Once there is State legislative authority to participate in the NDEA program, a State submits a plan to the U.S. Commissioner of Education outlining proposed activities to improve its statistical services. Upon approval of its plan, a State can receive up to \$50,000 in each of the fiscal years, provided it matches Federal funds with its own State funds. The proposed program must be a new one or an addition to or an expansion of an existing program. The Act stipulates that the State education agency (1) be the sole agency to administer the plan, (2) make such reports to the Commissioner as "may be reasonably necessary to enable (him) to perform his duties," and (3) provide for necessary fiscal control and accounting procedures to assure proper disbursement of and accounting for Federal funds. Other than meeting these minimal requirements, the State education agency determines the program best suited to improve its own statistical services. A State may also submit amendments to its original plan.

#### Progress

In the first 4 months after the Act was passed, nine States submitted plans and had them approved under the tentative regulations<sup>2</sup> developed by the Office of Education. As one early letter stated, "The need for improvement of statistical services in our department is great, and we are ready to move forward with plans for improvement as soon as our State plan under this title is approved."<sup>3</sup>

In spite of initial obstacles such as shortness of time, need for enabling legislation, and lack of required matching funds, 45 States had submitted plans to improve their statistical services by the end of the first fiscal year. A total of \$366,544.44 in Federal funds was granted to the 29 States having State matching funds to initiate their programs during fiscal 1959. A year later (by June 30, 1960) 50 States<sup>4</sup> had their plans approved and 45 of these were actually in the process of carrying out their programs as outlined.

<sup>2</sup> For latest official regulations see appendix B.

<sup>3</sup> Georgia (letter from chief State school officer, Dec. 30, 1959).

<sup>4</sup> By December 1960 the total was 52.

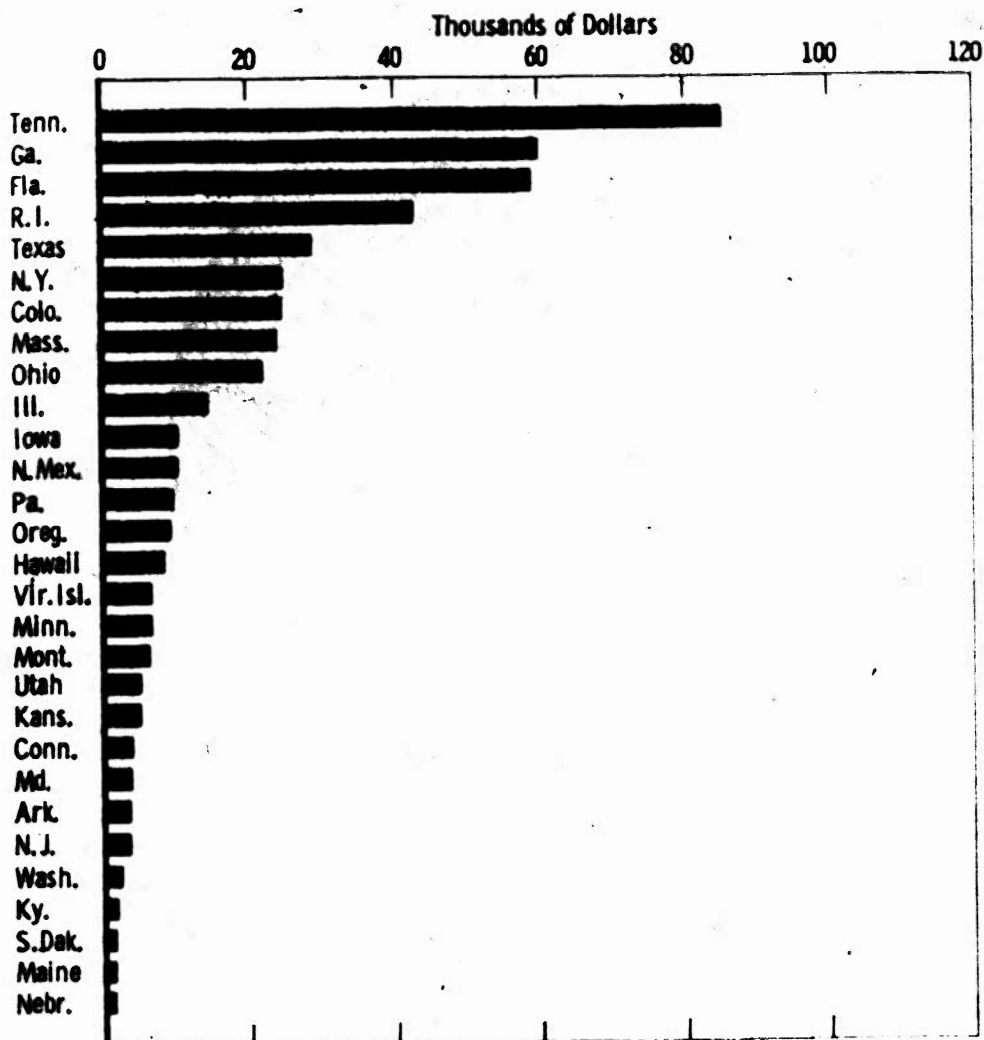


Chart 1.—Amount of expenditures under section 1009, title X, by State:  
Fiscal year 1959

A total of \$1,128,710.09 in Federal funds was granted for fiscal 1960, with 12 States each requesting the maximum amount of \$50,000.

The impact of title X in the first 2 fiscal years has been substantial and will be continuing and expanding during the remainder of the 4-year period. One of the most dramatic developments under the incentives provided by the title X program has been the expansion of the use of automatic data processing for recording, verifying, processing, storing, and retrieving educational information. While this expansion has revealed the potential of modern machines and techniques, it has at the same time brought a recognition of the complexities of the needs and problems in nationwide conversion to a modern intercommunicating system of educational information.



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Chart 2.—Percentage of total expenditures under section 1009, title X, by object: Fiscal year 1959

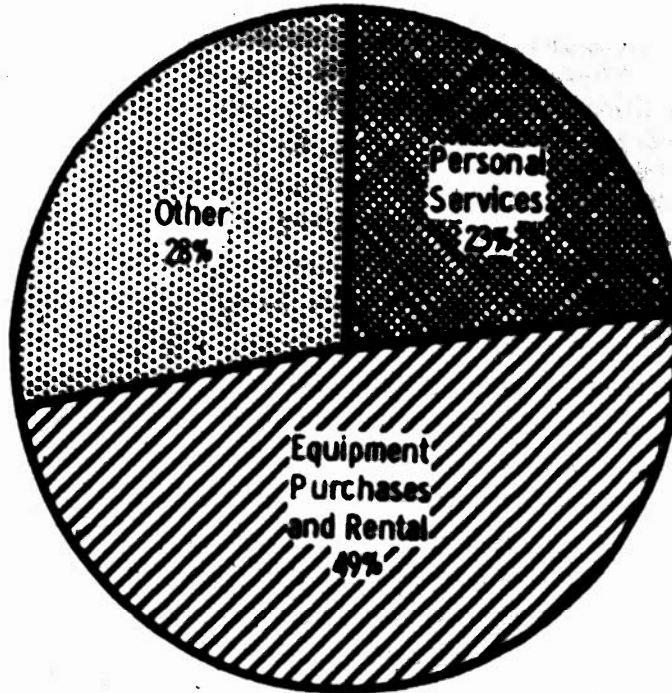
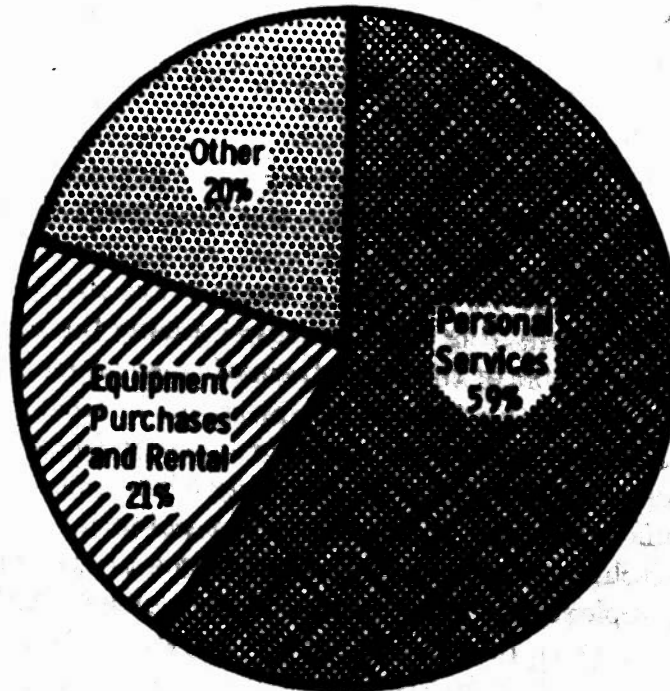


Chart 3.—Percentage of total expenditures under section 1009, title X, by object: Fiscal year 1960





OVERVIEW

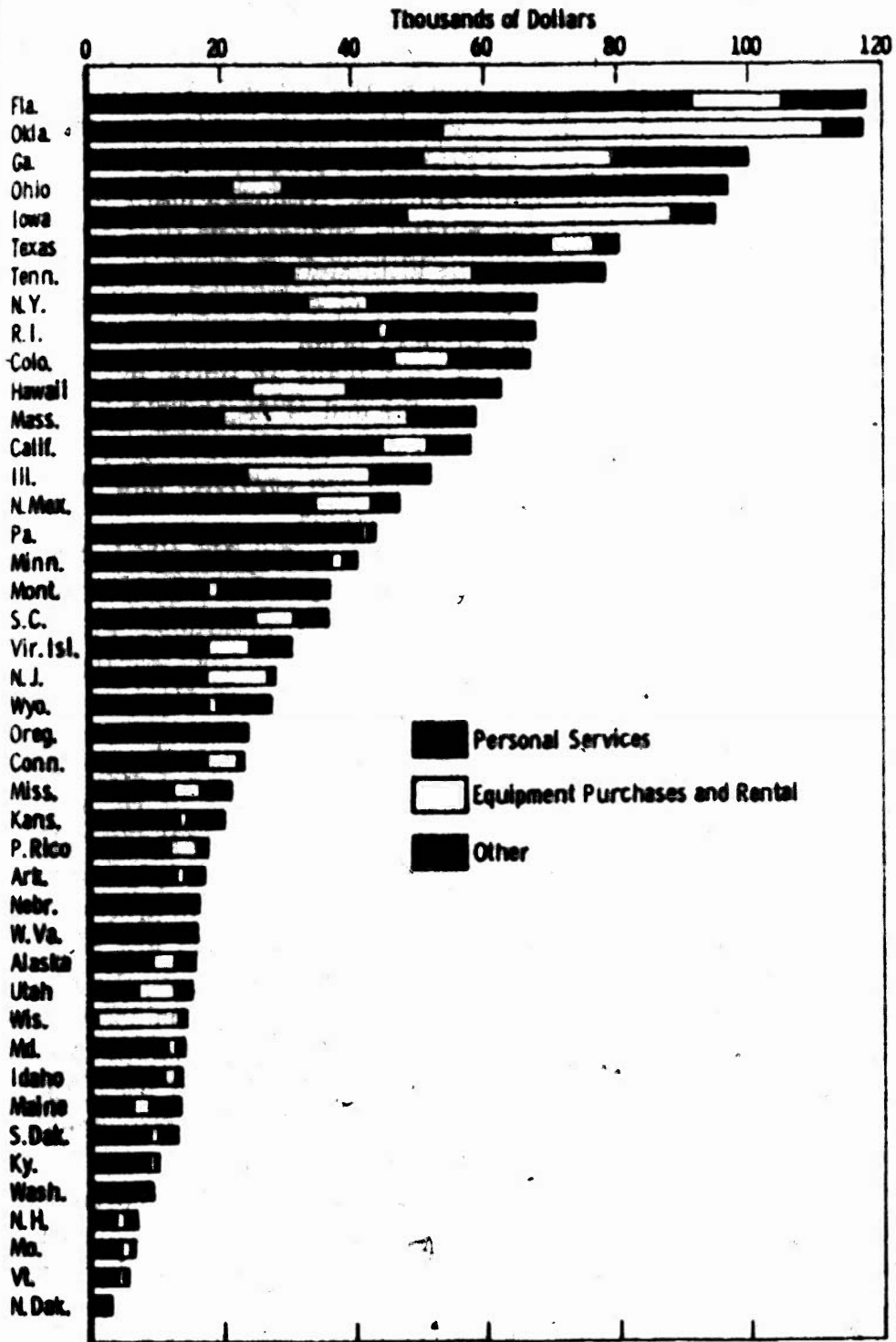


Chart 4.—Amount of expenditures under section 1009, title X, by State and object: Fiscal year 1960

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A majority of the State education agencies are taking initial steps toward the installation or expansion of automatic machine data processing. At the inception of the current Act, 13 States were utilizing machine data processing to some extent; as of the close of the 1960 fiscal year, 38 States had either installed or made definite plans to install machine systems. Although many of these installations provide only for minimal applications thus far, the results hold promise as the means ultimately to develop a nationwide system characterized by the flow of data in machine-usable form to and from the several levels of need.

Forty-three States included in their plans an initial evaluation of existing statistical services. By the end of fiscal 1960, 39 were either initiating or continuing such an evaluation, 27 States had improved their organization for statistical services, and 40 had added personnel to carry out their programs.

In 1951 the Office of Education began a cooperative project with State departments of education to identify items of educational information so that data collected would be comparable. Through conferences and workshops with representatives from leading educational organizations, Handbook I, *The Common Core of State Educational Information*<sup>5</sup> was published by the Office of Education in 1953. Another handbook, *Financial Accounting for Local and State School Systems*,<sup>6</sup> was published as a guide in recording, reporting, and interpreting financial information. At the time title X was passed, a guide for property accounting<sup>7</sup>—a third in this State Educational Records and Reports Series—was in process and has now been published. Two additional handbooks are now in process of cooperative development: one on staff accounting and one on pupil accounting. Nearly all of the State plans show programs to implement these cooperatively developed handbooks so that comparable data will be collected. At the close of fiscal 1960, 40 States were initiating, expanding, or continuing implementation of standard terminology and units of measure.

Throughout the 2 fiscal years covered by this report, representatives from State education agencies and the Office of Education have met in conferences and workshops to discuss ways in which

<sup>5</sup> Ranson, Paul L., Emery M. Foster, and Robert F. Will. *The Common Core of State Educational Information* (Bulletin 1953, No. 2. Handbook I of the State Educational Records and Reports Series). U.S. Department of Health, Education, and Welfare, Office of Education. Washington: U.S. Government Printing Office, 1953. 116 p.

<sup>6</sup> Ranson, Paul L., and Alpheus L. White. *Financial Accounting for Local and State School Systems, Standard Receipt and Expenditure Accounts* (Bulletin 1957, No. 4. Handbook II of the State Educational Records and Reports Series). U.S. Department of Health, Education, and Welfare, Office of Education. Washington: U.S. Government Printing Office, 1957. 235 p.

<sup>7</sup> Ranson, Paul L., and George G. Tankard, Jr. *Property Accounting for Local and State School Systems* (Bulletin 1959, No. 22. Handbook III of the State Educational Records and Reports Series). U.S. Department of Health, Education, and Welfare, Office of Education. Washington: U.S. Government Printing Office, 1959. 194 p.

they can be of mutual assistance in improving educational statistics. In the fall of 1959, six regional conferences<sup>8</sup> were held to review objectives, programs, and progress under title X. In early June 1960, a national conference was held in Washington, D.C., to evaluate progress and to further study and seek solution for problems encountered. In the spring of 1960, a national coding conference—the first of its kind—was held in the Office of Education to explore problems of coding educational information for machine processing. Representatives from State education agencies and the Office of Education had previously attended a meeting held at Endicott, N.Y., to discuss applications of automatic data processing for school districts and State agencies. State personnel have called on Office specialists to visit their States, conduct workshops for their staffs, and provide general consultative services. The Office of Education has acted as a clearinghouse for the dissemination of information and materials on the activities of the various State education agencies.

Cooperation has been the keyword among the States as they work together to improve the accuracy, promptness, and comparability of statistics. Staffs of State departments of education have visited each other to study ways in which other States have met problems of staffing and organization; uniformity and standardization of educational terms, definitions, and measures; speeding the collection, processing, and dissemination of statistics; expanding the scope of data coverage; improving the accuracy, analysis, and interpretation of data; and the installation of data-processing machinery.

The States have voluntarily formed regional groups to discuss ways and means of solving problems related to the collection, processing, and optimum use of educational statistics. The Northeastern States Council on Educational Research and Statistics was the first such group; a southeast and a midwest group are also currently active.

### State Plans and Programs

State plans which are reviewed in part II propose programs to implement the purposes of section 1009, title X, which include:

- ◆ Improving the collection, analysis, and reporting of statistical data supplied by local educational units.

<sup>8</sup> Washington, D.C., Sept. 14-15; Des Moines, Iowa, Sept. 28-29; Austin, Tex., Oct. 1-2; Atlanta, Ga., Oct. 5-6; Denver, Colo., Oct. 19-20; Salem, Oreg., Oct. 22-23.

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- ◆ The development of accounting and reporting manuals to serve as guides for local educational units.
- ◆ Conducting conferences and training for personnel of local educational units and periodically reviewing and evaluating the program for records and reports.
- ◆ Improving methods for obtaining, from other State agencies within the State, educational data not collected by the State education agency.
- ◆ Expediting the processing and reporting of statistical data through the installation and operation of mechanical equipment.

The State plans not only evidence these common objectives but also reflect the variation among the States as to the extent of statistical services already being performed when title X was passed. For instance, some States had already implemented Handbooks I and II, while others had not started standardizing terminology and accounting procedures. Some were already using data-processing machinery, while others would use the major portion of their funds for such installations. As the outlines in part II of this publication show, each State has planned activities to best fit its own needs for improving statistical services within the broad purposes of the Act.

In the outlines the wording of State plans, as submitted, was followed as closely as possible, although some changes were made in the outline form in order to provide for a consistent format. Proposed programs are shown for each State, as well as activities that have actually been carried out during fiscal years 1959 and 1960. Reports of these activities were taken from the States' own narrative reports to the Office of Education. The outlines were reviewed and approved by the respective chief State school officers and their staffs before publication.

## Terms Used in the Administration of Section 1009, Title X

The term "State" means a State, Puerto Rico, the District of Columbia, the Canal Zone, Guam, or the Virgin Islands.

"State education agency" or "State agency" means the State board of education or other agency or officer primarily responsible for the State supervision of public elementary and secondary schools, or, if there is no such officer or agency, an officer or agency designated by the Governor or by State law.

"State plan" or "plan" means the document or documents submitted by a State for approval by the U.S. Commissioner of Education to comply with the requirements for participation under section 1009, title X.

"Educational statistics" means the information, facts, and data concerning education in public and nonpublic educational institutions which are recorded in and reported by State or local systems of records and reports, or both, for the purpose of reflecting the condition and progress of organized education in the State.

Whether a program is "new" or an "addition to" or "expansion of" an existing program was, for the fiscal year 1959, measured against the activities being carried on by the State education agency prior to September 2, 1958. For programs submitted for approval after fiscal year 1959, the improvement or increase is measured against the activities carried on by the State education agency before the first day of the fiscal year in which the program is submitted for approval.

The "effective date" of a State plan is the date on which it is received in substantially approvable form by the Commissioner. Since the Federal Government participates only in amounts expended under the State plan, there can be no Federal participation in any expenditures made before the plan is in effect.

## Part II

# Outlines of State Plans and Programs

**A**PPROVED STATE PLANS, as well as program activities in fiscal years 1959 and 1960, are outlined in part II. The following headings are used in the State-by-State outlines:

- I. *Official Agency*: The legal name of the State education agency solely responsible for the State plan.
- II. *Administered by*: The title(s) of the officer(s) or administrative unit(s) within the State who (which) will administer the plan.
- III. *Effective Date*: Date plan was received by the U. S. Commissioner of Education, as well as date(s) of amendment(s), if any.
- IV. *General Policies and Purposes*: The general objective of the State's plan for the improvement of State statistical services.
- V. *Proposed Program*: A description of the program, including amendments, proposed by the State to carry out the general aims and purposes of the plan to improve statistical services.
- VI. *Implementation of Program*: Amount of Federal funds granted in fiscal years 1959 and 1960 and the activities which were actually carried out during those years to implement the proposed program.

## ALABAMA

- I. *Official Agency*: State Board of Education
- II. *Administered by*: State Superintendent of Education
- III. *Effective Date*: Jan. 5, 1959 (amended Oct. 12, 1959)
- IV. *General Policies and Purposes*
  - A. Fill in gaps in existing statistical information from data already available and from evaluation.
  - B. Give the public a better understanding of educational conditions and needs through enlightened appraisal of current statistics.
  - C. Improve preparation and interpretation of local and State statistical data through workshops for county and city board of education employees responsible for such data; also improve forms used for keeping school records and reports.



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### V. Proposed Program

#### *Improvement of the State's Statistical Services*

- A. Evaluate existing statistical services.
  1. Through questionnaires sent to county and city superintendents and a fair sampling of agencies and organizations in the State.
  2. Through workshops and meetings attended by personnel qualified in the field of research and statistics of the State department of education, institutions of higher learning, and county and city school systems. Employ one to three temporary consultants to assist in these workshops.
  3. Develop forms and procedures to provide additional statistical data as shown to be needed from evaluation.
- B. Improve dissemination of information about conditions and progress of education in the State:
  1. Through published releases sent to county and city superintendents, school board members, school trustees, the press (including radio and television), and other public officials, such as county health officers, county probate judges, etc.
  2. Through analysis of statistical information furnished to teachers and to the public by printed bulletins, leaflets, mimeographed materials, and recording tapes, including video tapes, charts, and other visual materials.
- C. Improve the preparation and interpretation of State and local statistical data, including record and report forms:
  1. Through State and/or district workshops and conferences with county and city board of education employees.
  2. Employ consultants and other personnel (accountant and/or statistician) to provide inservice training.
  3. Implement the national handbooks to obtain comparable data with other States.

### VI. Implementation of Program

- A. *FY 1959*: No program in operation.
- B. *FY 1960*: No program in operation.

## ALASKA

I. Official Agency: Alaska Department of Education

II. Administered by: Commissioner of Education  
Assistant Commissioner, Instructional Services  
Assistant Commissioner, Administrative Services  
Research Assistant  
Chief Accountant

III. Effective Date: Apr. 27, 1959

### IV. General Policies and Purposes

To provide for improved statistical services and organized information through which better understanding of education in Alaska can be developed.

**V. Proposed Program***Improvement of statistical services in the Alaska Department of Education*

- A. Evaluation of existing statistical services.**
1. Locate points of duplication of data.
  2. Discover gaps in the collection of data.
  3. Identify collected data not needed.
  4. Determine extent of accuracy of collected data.
  5. Discover causes of slow processing of data.
  6. Assess extent and effectiveness of data dissemination.
  7. Identify frequency of data collection.
- B. Development of a comprehensive statistical services section in the State department of education.**
1. Centralize and consolidate statistical procedures and services.
  2. Improve methods for obtaining data from all levels and units of the educational program.
  3. Improve the maintenance, disposition, and organization of records.
  4. Study the revision of present forms and the development of new forms for the collection of data. This will be done in accordance with the cooperatively developed national handbooks of the U. S. Office of Education.
  5. Collect, analyze, interpret, and disseminate statistical data in selected areas as a definite part of the regular statistical services program.
- C. Inservice training in statistical reporting, methods, techniques, and procedures for State and local personnel.**
1. Evaluate present statistical reporting, methods, techniques, and procedures for State and local personnel.
  2. Identify information required.
  3. Standardize where possible statistical reporting, methods, techniques, and procedures.
  4. Establish and conduct informative workshops for State and local personnel.
  5. Disseminate reports of problems identified as a result of workshops.
  6. Revise, correct, establish, and improve where necessary statistical reporting, methods, techniques, and procedures.
- D. Establishment of machine processing of educational data.**
1. Evaluate present machine processing services.
  2. Identify needs for improvement.
  3. Identify equipment needs, procure and/or make arrangements for equipment for the establishment of machine processing.
  4. Implement and improve statistical services as a result of machine processing.

**VI. Implementation of Program**

<b>A. FY 1959:</b>	No program in operation.	
<b>B. FY 1960:</b>	Federal funds .....	\$ 7,834.11
	State funds .....	7,834.31
	<b>Total</b> .....	<b>\$15,668.42</b>



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A director of statistical services was employed as of Dec. 1, 1959.

Although Handbook I and Handbook II had been implemented to a considerable extent before the title X program, a reevaluation was completed and plans were made for filling the existing gaps, especially in the area of school property information.

Procedures and forms for the collection and processing of data were evaluated and revised where necessary.

Plans were under way for an internal master report form for each of the 28 local districts and the schools actually operated by the department. All data for a given school district will be transposed from the several reports to a master report form for that district. The master report form will then serve as a single source document for department personnel in the preparation of dissemination materials and outgoing reports.

### ARIZONA

- I. Official Agency: State Board of Education
- II. Administered by: Superintendent of Public Instruction  
Director, Research and Finance
- III. Effective Date: Aug. 31, 1959
- IV. General Policies and Purposes
  - A. Evaluate existing statistical services.
  - B. Improve and expand the collection of data.
  - C. Facilitate the verification and speed up the processing, analysis, and interpretation of data.
  - D. Develop better techniques and methods of dissemination of information about education.

#### V. Proposed Program

##### *Improvement of Statistical Services in the Arizona State Department of Public Instruction*

- A. Evaluate existing statistical services.
  - 1. Make an extensive study of needs for educational data.
  - 2. Appraise existing accounting and reporting forms to decide upon changes and revisions.
  - 3. Study procedures in collection, processing, and uses of data.
- B. Implement standard terminology, definitions, measures, and principles in educational accounting and statistical reporting.
  - 1. Adjust all forms to include standard terminology, definitions and measures to conform with Handbook I.
  - 2. Develop a State manual to assist local school districts in pupil and other personnel accounting.
  - 3. Hold workshop conferences to provide inservice training for local personnel in the use of the State manual and in the accounting and reporting of statistical information.

- C. Revise school finance accounting system.
  - 1. Revise all finance accounting and reporting forms and adapt as necessary to meet State needs and to be in conformance with Handbook II.
  - 2. Revise State manual on finance accounting to assist local school district personnel in school finance accounting and reporting according to the new system.
  - 3. Plan and conduct workshop conferences to provide inservice training for local school district personnel.
- D. Establish a system of school property accounting and reporting.
  - 1. Appoint a representative group of school people to assist in the design of a work schedule and plan to bring about the establishment of school property accounting.
  - 2. Design accounting and reporting forms and other materials which will be given trials, revised, and ultimately adopted.
  - 3. Develop a State school property accounting and reporting manual.

#### VI. Implementation of Program

- A. *FY 1959*: No program in operation.
- B. *FY 1960*: No program in operation.

## ARKANSAS

I. Official Agency: Arkansas State Board of Education

II. Administered by: State Commissioner of Education  
 Director of Disbursements and Accounting  
 Director of Budgets and Loans

III. Effective Date: Apr. 23, 1959

#### IV. General Policies and Purposes

- A. Provide more rapid collection of statistical information so data may be of more use in evaluating, planning, and reporting educational programs.
- B. Provide adequate statistical information.
- C. Provide some narrative which will assist in a proper interpretation of statistical information.
- D. Improve system of reporting and disseminating statistical information.
- E. Improve accuracy of statistical information.
- F. Provide for uniform reporting and accounting (fiscal and pupil) at both local and State levels.
- G. Improve inservice training through workshops, conferences, and other inservice methods for school personnel responsible for statistical records and reporting.
- H. Develop modern methods for processing statistical information.
- I. Provide more complete dissemination of statistical information to school districts, school boards, legislature, other States, national associations, and Federal agencies.

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- J. Eliminate duplication of reporting.
- K. Coordinate and centralize statistical services.
- L. Use Handbooks I and II as a basic guide for statistical programs.
- M. Make a careful evaluation of existing statistical services.

### V. Proposed Program

#### *Improvement of Statistical Services in State Department of Education*

- A. Evaluate existing program of statistical services.
  - 1. Determine amount of and analyze use of statistical information now being reported.
  - 2. Determine accuracy of current reports.
  - 3. Analyze method of reporting and tabulation of statistical information.
  - 4. Determine ways to improve the time schedule for reports.
  - 5. Determine additional uses of data reported.
  - 6. Determine data reported that is not needed.
  - 7. Determine extent to which reporting is based on the *Common Core of Educational Information and Financial Accounting for Local and State School Systems* (Handbooks I and II).
  - 8. Determine present costs and make cost estimates of expanded services.
- B. Develop a program of uniform financial accounting.
  - 1. Prepare and print standard accounting forms.
  - 2. Provide and explain Handbook II to school business officials.
  - 3. Organize advisory committees to assist Department of Education staff in development of program.
  - 4. Organize advisory committees to develop a State manual of financial accounting and certain accounting forms.
  - 5. Hold group meetings and workshops for school business officials to explain accounting manuals and accounting forms.
- C. Develop an improved and expanded system of reporting, coordinating, tabulating, and publishing statistical information.
  - 1. Develop reporting forms and procedures that conform to Handbooks I and II.
  - 2. Employ consultants to assist in development of the program.
  - 3. Hold workshops and conferences for school personnel to develop and explain the reporting process.
  - 4. Purchase and/or rent tabulating equipment, including electronic equipment, and employ and train personnel to use such machines.
  - 5. Provide more complete preparation and distribution of statistical information to the legislature, school officials, the public, and State and Federal agencies.
  - 6. Use sampling techniques to procure estimates and projections.

**VI. Implementation of Program**

A. <i>FY 1959</i> : Federal funds .....	\$1,593.68
State funds .....	1,593.69
<b>Total</b> .....	<b>\$3,187.37</b>

Until June 1, 1959, the Arkansas State education agency had no full-time personnel employed for statistical services. This program was carried on by personnel in the Division of Budgets and Loans and the Division of Disbursements and Accounting. No mechanical tabulation was used. Just a little over a month after the State's plan went into effect, the department had added a full-time supervisor of statistics in the Budgets and Loans Division. Statistical forms were being collected and studied to eliminate duplication and obsolete and unnecessary reports, and recommendations were made for needed improvements. Handbooks I and II were adopted and a start made on implementing them. (Handbook I had been used as a basic guide but no state-wide effort had been made to implement its use.) Copies of the new standard accounting forms developed in line with Handbook II were distributed to all local school administrators. In June also, a staff made up of the director of budgets and loans, the director of disbursements and accounting, the supervisor of statistics, and the director of the School Audit Division of the State comptroller's office conducted five workshops to discuss and explain the new financial accounting forms.

The various divisions of the department were working on coordinating their requests for data and studying the forms for uniformity. Efforts were made to speed up requests and deadlines so that data could be disseminated more quickly. A start was made to revise statistical reporting forms so that accurate and complete information can be supplied more promptly to the U. S. Office of Education and local, State, and national agencies who request educational data.

B. <i>FY 1960</i> : Federal funds .....	\$ 8,534.45
State funds .....	8,534.45
<b>Total</b> .....	<b>\$17,068.90</b>

The 1959 General Assembly created an 18-member study commission composed of all 9 members of the State board of education and 9 members of the legislature. This commission, among other duties, made a comprehensive study and an evaluation of the organization and maintenance of data and the dissemination of statistical information about education. The facilities and personnel of the State department of education, the legislative council, and the legislative audit committee were available to the commission. The report of this commission will include such data as are pertinent and will make such observations, suggestions, and recommendations as it deems advisable for the improvement of these activities.

In addition to the work of the study commission, the directors and professional personnel of each division studied and evaluated

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the organization and maintenance of data, the dissemination of statistical information about education, and other important phases of the statistical services program. During the year, study has been in progress to evaluate the present forms being used for surveys and reports. Many suggestions and recommendations were received from local school personnel which have led to a revision of the statistical forms for reporting on the expenditures of the operating fund and the building fund. The annual report of the county supervisor of schools has been revised in order to divide the report into two parts; this will result in an earlier receipt of part I, which in turn will speed up the processing of the entire report.

Statistical personnel of the State department of education, along with the director of school audits, held a series of 8 regional conferences in which 267 local school administrators and school secretaries participated, 6 regional conferences in which 192 county school supervisors and secretaries took part, and 7 followup regional conferences in which 63 local school administrators and secretaries participated. The principle purpose of each of these conferences was to implement the use of Handbook II and the *Arkansas School Accounting Manual* in relation to the new financial accounting forms. A portion of the time in these workshops was also devoted to the overall improvement of statistical services by working with the local personnel responsible for supplying the raw data.

### CALIFORNIA

- I. Official Agency: State Board of Education
- II. Administered by: State Superintendent of Public Instruction and Director of Education
- III. Effective Date: July 6, 1959
- IV. General Policies and Purposes
  - A. Evaluate existing statistical services and provide for indicated improvements in reporting forms and procedures.
  - B. Adopt standard terminology and develop accounting and reporting manuals for implementation.
  - C. Make transition from sporadic or incomplete studies to annual or cyclic reports.
  - D. Develop procedures for a continuing inventory of school sites and buildings.
- V. Proposed Program
  - Improvement of Statistical Services in the California State Education Agency*
    - A. Evaluation of existing statistical services, improvement of existing report forms, and modifying statistical services.
      - 1. Develop a system of report control.
      - 2. Revise existing report forms to facilitate recording and processing and to incorporate new information categories.

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3. Adopt as much of the pattern suggested in *The Common Core of State Educational Information* as possible.
- B. The development of accounting and reporting manuals.
  1. Develop new State accounting manuals to include the principles set forth in Handbook II, *Financial Accounting for Local and State School Systems*.
  2. Encourage and assist county office personnel in developing increased proficiency for advising and assisting local units in school district budgeting, accounting, and reporting.
  3. Prepare an accounting and business procedure manual on the County School Service Fund.
  4. Improve accounting and reporting procedures in the areas of transportation and special education.
- C. Educational facilities inventory.
  1. Compile an inventory of existing school sites and buildings.
  2. Develop suggested form for use at the local level to obtain and maintain pertinent information concerning building cost, maintenance, and operation.
  3. Develop a punch card system for maintaining a continuing statewide facilities inventory, including provision for annual updating in relation to new buildings constructed and old buildings abandoned or destroyed.
- D. Reporting of noncertificated school employees.
  1. Develop questionnaire identifying approximately 20 of the most common job descriptions for persons other than the certificated staff.
  2. Collect and analyze significant data on noncertificated personnel in terms of size of school district.
- E. Pupil age-in-grade and school progress information.
  1. Collect statistical data relating to retardation and acceleration of pupils, such as grade levels, sex differences, ability differences, test scores, and types of pupil progress reports.
  2. Analyze and interpret data.

**VI. Implementation of Program**

A. FY 1959: No program in operation.	
B. FY 1960: Federal funds	\$28,947.26
State funds	28,947.26
Total	\$57,894.52

During fiscal year 1960, new personnel were hired to accomplish the work outlined in the State plan. These personnel included three statisticians, one research technician, one field representative in school business management, two account clerks, and one stenographer. In addition one-third time of a tab supervisor and a keypunch operator were committed to title X activities.

A comprehensive coordinated evaluation of the statistical services was initiated. Basic characteristics of reporting forms and

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procedures have been identified. Since a large share of the data regularly collected by the department is used for apportionments, it seemed that the reporting structure for this activity should be described in more detail before proceeding further toward common core reporting objectives. Preparations toward this end included establishing patterns of origin and transmission and classification of the items reported. Much of this has been accomplished, and the descriptive report is in a preliminary stage.

A new field representative was assigned the task of coordinating the work of the several sections of the Accounting Committee to facilitate the revision of the accounting manual. The committee is working in cooperation with the California Association of School Business Officials, and it is estimated that the revised accounting manual will be published and distributed by July 1, 1961.

A comprehensive survey of all public school facilities in California is in process. As of June 30, 1960, the survey document in its preprinting form was being circulated to selected school districts on a tryout basis.

The basic facts which would comprise a pool of statistical information for noncertificated school employees were deemed to be lacking. Consequently, plans were developed for a survey of basic wage rates, employment, costs, personnel practices, staffing, and other subjects of interest in the personnel field. Sources of information concerning noncertificated personnel were explored, and data presently available from outside sources were evaluated.

The initial survey for pupil age-in-grade and progress information involved a distribution of birth dates and grade assignments for approximately three million pupils enrolled in regular classes in kindergarten through grade 12 of the public school system. As of June 30, 1960, such distributions had been returned from 90 percent of the 1,721 local districts in California.

A study is underway on two phases of machine processing applications to (1) convert the preparation of credential documents from hand typed to machine printed processing, and (2) survey the academic preparation and current assignments of all certificated personnel and establish a punch card file containing a card for each respondent.

A survey was conducted to determine the extent and types of machine data processing now being used at the local district and county levels in the State of California.

### COLORADO

- I. Official Agency: Colorado State Board of Education
- II. Administered by: Commissioner of Education and Staff
- III. Effective Date: Mar. 16, 1959 (amended June 23, 1959)
- IV. General Policies and Purposes
  - A. Improve the collection, analysis, and reporting of statistical data supplied by local educational units.



- B. Develop accounting and reporting manuals to serve as guides for local educational units.
- C. Conduct conferences and training for personnel of local educational units and make periodic reviews and evaluation of the program for records and reports.
- D. Improve methods for obtaining, from other State agencies within the State, educational data not collected by the State education agency.
- E. Expedite the processing and reporting of statistical data through contracted use of mechanical equipment.
- F. Use the national handbooks as a basis for developing new reporting forms.

#### V. Proposed Program

*Evaluation, Revision, Improvement, and Expansion of the Educational Records, Statistical Services, Reporting, and Data Dissemination Systems of Colorado Schools and the Colorado State Department of Education*

- A. Evaluation of report items and forms, statistical services and reports.

This part of the present plan will entail the formation of a committee, or committees, composed of qualified representatives from various schools and organizations who are familiar with and have an interest in school statistics.

This committee will aid in making comprehensive studies of informational items and forms needed, priorities, and proper reporting schedules. It will be expected, in addition to evaluation, to make recommendations for continuing improvement.

It is expected that such a committee will be requested to meet monthly for at least 6 months, and thereafter meet quarterly. The plan envisions that professional consultants will be made available to the committee as occasion of their work demands.

These activities are expected to bring about improvements in statistical services by a more careful selection of necessary items, more timely collection of data, elimination of duplication and coordination of processing, use, and reports.

Improvement is expected through the use of standard educational terms and measures, as set forth in *The Common Core of Educational Information*.

This part of the plan will require consultant fees, traveling expenses of committee members and office staff, stenographic services, office supplies and postage, telephone, and telegraph.

- B. Establishment of a central statistical staff.

This plan provides for adding a staff specifically charged with carrying out the major portion of the statistical collection and processing for the entire department.

The staff will consist of the director of the reorganized Division of Research and Statistics, who will act one-half time as statistical chief and one-half time as research director; one statistical analyst, and three statistical clerks. Only the director will be considered a professional person, with high qualifications of professional experience and training.



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There will be additional requirements in the nature of rented space facilities, desks, chairs, calculators, adding machines, typewriters, office supplies, telephone service, and traveling expenses.

### C. Establishment of the system of field-office coordination for accounting and reporting.

Only in the area of school finance has a program of field-office coordination been established. Under the supervision of the director of finance, the section chief in charge of budgets and finance has been responsible for the revision of school financial accounting and reporting, now in effect. A financial accounting manual is being studied but has not yet been written. Inservice training in financial accounting is being conducted.

The plan proposes carrying out similar programs in other areas of school accounting and reporting. The added staff will include three highly qualified coordinators assigned to major areas, such as pupil accounting, personnel accounting, school finance, school property, transportation accounting, and curricular and instructional recordkeeping and reporting. Stenographic help will also be provided.

Requirements in addition to salaries of the above personnel will include rented space facilities, desks, chairs, typewriters, office supplies, telephone service, and traveling expenses.

### D. Machine processing of statistical data.

The department at present owns four electrical calculators, rents one calculator, and owns seven adding machines. All tabulation of data is done by hand from raw data, and all compilations and calculations made on the aforementioned desk adding machines and calculators. None of the reported data is presently card punched.

This plan proposes the use, on a contract basis, of the machine processing system, available in the Central Machines Section of the State Revenue Department. All incoming data will be punched on cards and processed through mechanical and electronic means. It is anticipated that use of such a system will cost approximately \$1,000 per month in 1959-60 and \$1,500 per month in regular operation. The statistical staff, as outlined in "B" will be responsible for implementing this work.

## VI. Implementation of Program

A. FY 1959: Federal funds	\$12,206.49
State funds	12,367.81
Total	<hr/> \$24,573.80

The executive assistant to the commissioner was assigned as coordinator of NDEA titles on March 16, 1959, with one-third of his time going to work under the title X program. The director, Division of Research, began devoting one-half of his time to statistical services on Mar. 16, 1959, the effective date of the plan. Three field office coordinators began full-time work under the plan on June 1, 1959. A professional staff person working in the area of financial accounting began devoting one-third of his

time to this program on March 16, 1959. A statistical clerk and a clerk stenographer each began part-time work under the program on the effective date of the plan.

The important matter of evaluating present data gathering and processing practices and procedures was initiated, primarily in terms of discussion and consideration in the conferences and workshops noted in part "B" of the plan. In addition, ground work was laid for contact with important State agencies, committees, and councils with related responsibilities and with county and local school officials. The evaluation process went well along in financial accounting and recordkeeping, and revisions of reporting forms and procedures initiated and preparation of a State handbook for financial accounting almost completed.

In May 1959, the State board of education authorized the transfer of statistical duties in the department to a reorganized Division of Research and Statistics. This was followed by general plans to have all division directors in the department meet to work out coordination details. Plans were also made for the establishment of liaison with formerly established State agencies, councils, and committees and for informal meetings with individuals and groups at the county and local level.

A study of national handbooks was instituted along with general plans for the eventual adoption of terminology contained in the handbooks. The State financial accounting handbook was in the final stages of completion, and general plans were made for the development of other State handbooks.

New forms and procedures were instituted concerning the reporting of expanded financial statistics, and work was started on the preparation of a form which would increase the amount of data concerning certificated personnel. Plans also were being made for additional data collection on noncertificated personnel. These new forms were designed for machine processing.

The reporting of financial statistics was changed. Arrangements were made for certain statistics previously collected at the county level, and summarized there, to be collected only by the county superintendents and sent directly to the State education agency for summarization by machine processing and then returned to the county for verification.

Arrangements were made with the Central Electronic Data Processing Division of the Colorado Department of Revenue for the processing of educational statistics on a contractual basis. Work was begun by this division on a trial run machine preparation of a previous manually prepared report entitled "Comparative Information on Enrollments, Teachers, and School Finance."

Sixteen regional conferences with county and local officials were held at which the statistical services of the Colorado State Department of Education were described and discussed. Formally structured training sessions were held in connection with financial accounting and reporting.

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B. FY 1960: Federal funds	\$33,821.63
State funds	33,533.50
Total	\$66,855.13

Statistical services personnel added during this fiscal year included the following: one statistical analyst, two full-time statistical clerks, one full-time clerk stenographer, and one temporary statistical clerk. The evaluation project was presented to the entire departmental staff and they accepted the general evaluation plan and agreed to participate. Evaluation of report items and forms, data collection, and disseminating practices were in process on an informal basis and some improvements were made, at least on an interim basis.

Coordination for statistical services was improved both within and outside the department. Field office coordinators were assigned to meet with staff members of the offices of administration and instructional services at regularly scheduled meetings. Another channel of coordination was through the regularly scheduled meetings of division directors and a third was through a use of monthly division activity reports.

Twenty-five conferences and workshops, involving over 27 days of activity and over 180 trainees, were held for the training of State education agency personnel. These included: (1) joint meetings with machine data processing personnel, (2) participation in two regional title X meetings, (3) orientation and information sessions for the department staff, (4) visitations to other State statistical agencies to study their practices, procedures, and equipment, (5) participation in two national title X conferences, and (6) participation in a forms design workshop conducted by General Services Administration personnel. In addition, staff members of the Division of Research and Statistics continued to enroll in local machine data processing classes.

Thirty-two conferences and workshops were held for the purpose of training local statistical personnel. These involved 18½ days of working time and more than 850 trainees. In addition, there were numerous individual consultation training sessions for local personnel.

Report design and content were improved through better dissemination techniques. For example, reports issued included sections providing background information, an explanation of the treatment of the data, a summary of the major findings, and some interpretive statements. Charts and graphs were used to improve and simplify understanding. Mailing or distribution lists were expanded.

A tab-card system was developed for analyzing presently collected items of information as to degree of conformity with Handbook I. These cards will be used as a basis for the ongoing study of data collection forms and constituent items. Some preliminary work was done regarding development of State handbooks in the areas of personnel, property, and transportation accounting and reporting.

CONNECTICUT  
CONNECTICUT

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- I. Official Agency: Connecticut State Board of Education  
II. Administered by: Chief, Bureau of Research, Statistics, and Finance  
III. Effective Date: Dec. 29, 1958 (amended Sept. 9, 1959, Apr. 19, 1960, Sept. 27, 1960)

IV. General Policies and Purposes

- A. Expedite and improve the collection of data now collected.
- B. Permit the collection of significant data not now collected.
- C. Expedite the processing and reporting of statistical data.
- D. Aid local education units in maintaining and preparing records and reports more accurately, easily, and promptly.
- E. Evaluate present and future programs of statistical services as a basis for their improvement.

V. Proposed Program

*Improvement of Record Forms, Record Keeping, and Record Processing in the Connecticut State Department of Education and in the Public and Nonpublic Schools of the State*

- A. Develop a State report folder and forms.
  1. Through conferences of State department personnel and local superintendents, school business managers, clerks and/or others:
    - a. Review and evaluate present statistical data collected.
    - b. Develop plans to speed local collection of data.
    - c. Identify additional significant data which should be recorded and/or reported, e.g., data on curricula offerings in secondary schools, enrollment and class size by courses, etc.
    - d. Develop uniform internal reporting forms consistent with forms for reporting to the State.
    - e. Conduct training sessions in the proper completion of State report forms.
    - f. Develop additional forms needed for new or changed programs mandated by the State legislature, e.g., forms for the collection of State school data related to new State aid procedures.
  2. Develop an instructional manual to accompany forms, if needed.
- B. Change teacher personnel records.
  1. Speed up the collecting, analyzing, and disseminating of information about teacher personnel. (Accuracy of reporting will be increased since IBM machinery will replace hand procedures.)
  2. Conduct pilot project for one or two communities:
    - a. Assign new identification (certificate) numbers to all professional personnel.
    - b. Code information about teacher personnel.

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- c. Issue (by machine) new certificates showing types of certification by code.
  - d. Code and punch teaching assignments of various personnel.
  - e. Check certification and assignment for consistency in the two communities.
3. Mechanize procedures for handling teacher personnel records.
  4. Rent mechanical equipment to expedite the processing and handling of statistical data, including key punch machines, verifiers, sorters, tabulators, and interpreters.
  5. Employ personnel to code data and to operate mechanical equipment.
- C. Change school building aid payment records.
1. Code essential school data from the final project approval card.
  2. Translate the data on to master cards (IBM).
  3. Prepare at least two master files of projects by project number and by town.
  4. Prepare, at time of initial approval of project, the 20-payment cards to be filed for the proper quarter in each of the 20-payment years.
- D. Mechanize records at educational institutions under direction of the State department of education.
1. Study the collection and processing of data at and from the 4 State colleges, 14 vocational technical schools, and 2 technical institutes.
  2. Initially, study the State college record system. (This will be done by a committee consisting of the registrars of the colleges, a representative from the department's Division of Administration, with the chief of the Bureau of Research, Statistics, and Finance as chairman.)

The proposed task will include:

    - a. Projections of the number and kinds of population at the institutions.
    - b. A study of the various kinds of student records—admissions, registration, courses, grades, etc.—for all students, regular, summer, part-time, evening, and extension.
    - c. Determination of possible improvements in and standardization of the various records.
    - d. A study of the use and purchase of mechanical equipment—what kind of records might be handled more efficiently by mechanized equipment, what type of installation is most desirable (a central installation for all four colleges, or alternate use by the colleges, or cooperative use with other units of the department of education or other departments of State government), the various uses of the equipment, and the costs of equipment from various manufacturers.

- e. Determination of the number and types of personnel needed to operate mechanical equipment in comparison with personnel now used.
  - f. Use of such resource person as may be needed in investigations.
  - g. Detailed recommendations for the most desirable plan.
  - h. Determination of the most effective methods for processing, summarizing, and disseminating statistical information and data about colleges.
3. Make a similar study of the vocational technical schools and the technical institutes.

#### VI. Implementation of Program

A. <i>FY 1959</i> : Federal funds	\$1,805.71
State funds	1,805.72
Total	\$3,611.43

Before title X, each school in the State used its own internal forms. However, Handbook I was used as a basis for certain information, particularly for number of students housed in non-school facilities and for school construction data. Most data collected pertained to public schools. This included information on enrollments in nursery schools, kindergartens, elementary schools, secondary schools, and data on school facilities, teacher personnel, etc. But collection and dissemination of data were often time consuming and slow.

Immediately after the plan was approved—and Connecticut's was one of the first—the State started improving teacher personnel records. The pilot project planned for speeding up the collecting, analyzing, and disseminating of information on teacher data was completed in one community. This included checking certification records against actual teaching assignments (part B of the plan). New identification numbers were assigned to all professional personnel, the information was coded, and certification and assignments were checked for consistency. Accuracy was improved. IBM machines replaced hand procedures. From data collected in this community, an analysis was done. Formerly, lists of teachers were obtained through questionnaire or by analysis of forms which listed, in no particular order, all teachers in a local system. The form for collecting initial teacher data was revised. (Listing the teachers in the various fields will be valuable to consultants and will permit the State department to collect and prepare lists of teachers in other areas than those in which lists previously had been prepared—science, mathematics, industrial arts, school nurses. It will aid recruitment programs by identifying prospective teachers through listing certified personnel who are not teaching or not teaching in the various areas of certification.)

A key punch machine, a verifier, one sorter, and one gang punch were on order.

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The department had been using Handbook II as a guide for the State's *Report of Condition of the Public Schools*. Statistical data collected was reviewed, and grant forms were revised to include the latest legislative references. Minor changes were made to improve computation accuracy. A *working copy* form for reporting data on the financial condition of the public schools was tried out on an experimental basis, preparatory to its adoption as an official reporting form in the next year or two.

B. FY 1960: Federal funds	\$11,399.03
State funds	11,399.04
Total	\$22,798.07

The Bureau of Research, Statistics, and Finance arranged conferences with bureau chiefs of the State department of education to review all data collecting forms and made a detailed analysis by section. Ten workshops, attended by 225 local people representing 115 school districts, were then held throughout the State to review present statistics collected, develop plans for speed, accuracy, and uniformity of handling data, and for training in the proper completion of State report forms. Local school people included superintendents, assistant superintendents, business managers, and secretaries and clerks.

Department staff solicited the Association of Elementary School Principals and the Association of Secondary School Principals of the State for their reactions, opinions, and suggestions for improving the *Connecticut School Register*. The department also sent questionnaires to superintendents of the 169 local school districts for their suggestions as to the most desirable sizes of classroom registers. After the questionnaires were tabulated, it was decided that two sizes—39 and 78 student registers—would best suit the needs of the State. After several conferences with the Management Analysis Section, Department of Finance and Control, it was determined that the 39 student register could be cut from 40 to 4 pages and the 78 student register, from 56 to 6 pages, for permanent storage, in conformance with the statutes. This represented a saving of approximately 90 percent of storage space required compared with previous requirements.

A pilot project was instituted in one local high school with 2,700 students to process the register mechanically. In addition, the principal's scheduling, report cards, class lists, and test records were also done by machine. Two other cities are interested in doing the same type of project. Upon approval by the department, one is ready to make use of equipment now installed. (Since the school register is a State document, the department has to approve any alternate format.) The State department of education is exploring the whole gamut of adapting machines to local use.

Connecticut continued to work on improving teacher personnel records. Special emphasis was given to the installation and use of data processing equipment. Teacher personnel information



was coded and teaching assignments of all teaching personnel were coded and punched. New identification (certificate) numbers were assigned to all professional personnel in active service in the State. Certification and assignment will be checked for consistency by machine.

Lists of teachers by town were prepared and furnished to State department consultants in business education, guidance, history and social studies, mathematics, science, and English, and to school librarians. This information has eliminated the questionnaire formerly used by the consultant. (This procedure has resulted in the saving of 2 weeks of clerical time per consultant. It has also eliminated the duplication of requests of this type of information at the local level.)

The department has begun to code essential school building data from the final project approval card, translate the data on to a master IBM card, prepare at least two master files of projects by project number and by town, and prepare, at the time of the initial approval of the project, 20-payment cards which will be filed for the proper quarter in each of the 20-payment years. (Most aid is paid in 20 annual installments and usually made during the same quarter for each payment year.)

## DELAWARE

- I. Official Agency: The State Board of Education
- II. Administered by: State Superintendent of Public Instruction  
Assistant State Superintendent in Charge of Business Administration  
State Director of Research and Publications
- III. Effective Date: June 2, 1959
- IV. General Policies and Purposes
  - A. Attain increasing effectiveness in the collection, analysis, and reporting of statistical data supplied by local educational units.
  - B. Develop accounting and reporting manuals that will serve local units with greater efficiency than those now in use.
  - C. Conduct conferences and training programs for local and State personnel concerning the collecting and reporting of statistical data.
  - D. Provide periodic reviews and evaluations of the programs effected.
  - E. Develop improved techniques for obtaining from other agencies educational data not collected by the State agency.
  - F. Develop methods to expedite the processing and reporting of statistical information through installation of mechanical equipment.
  - G. Implement the taking of an annual census of all children from birth through age 18 so that future educational needs may be more accurately predicted.



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### V. Proposed Program

*Improvement, Through Revision, Addition, and Expansion,  
of the Statistical and Reporting Services for the State  
Department of Public Instruction of Delaware*

- A. Evaluate the present statistical service program for collecting, verifying, processing, analyzing, interpreting, and disseminating educational data. (This evaluation will be of a continuing nature.)
  1. Determine (a) what types of data are essential and what types, if any, may be eliminated; (b) how to collect, verify, process, analyze, interpret, and disseminate rapidly and accurately such data as are collected; (c) what methods to use in making the evaluation; and (d) what direction the continuous evaluation takes.
  2. Organize one or more advisory committees. (One committee, operating on a continuous basis and having permanent status, will consist of the State superintendent, personnel from the Division of Research and Publications and the Division of Business Administration, other State department personnel, local school personnel, lay persons, and such others as are considered desirable.)
  3. Conduct workshops, conferences, and field studies.
  4. Employ one or more consultants and additional personnel, as needed.
- B. Implement a plan for taking a statewide pupil census.
  1. Conduct preliminary meetings among persons in the Divisions of Research and Publications and Business Administration, and other interested parties to determine such items as: (a) what data to collect, (b) the procedures to be used in collecting the data, (c) how often the data should be collected, (d) when to collect the data, (e) what forms should be used for reporting the data, and (f) how the data should be coded.
  2. An advisory committee may be appointed to help in these determinations.
  3. Develop procedures for taking census, probably training teachers for the task.
  4. Develop census reporting forms and manuals of procedures in accordance with Handbook I, *The Common Core of Educational Information*.
  5. Use mechanical equipment to process data collected.
  6. Results will be collected, verified, processed, analyzed, interpreted, and reported.
- C. Improve the system of record keeping of pupil attendance.
  1. Hold conferences of persons of the department's Divisions of Research and Publications and Business Administration, local school administrators, teachers, and other interested persons to determine what pupil attendance information is essential.
  2. Revise data collecting forms consistent with Handbook I to obtain this information.

3. Annually review pupil attendance record system and data collecting forms, making revisions where desirable.
- D. Develop an improved system of collecting, verifying, processing, analyzing, interpreting, and disseminating educational data.
1. Install data processing equipment to (a) speed up the collecting, verifying, processing, analyzing, interpreting, and disseminating of statistical information, (b) increase accuracy of results, and (c) increase and refine the types of information gathered for improved statistical and reporting services.
  2. Add professional staff as needed and conduct inservice training programs for statistical services personnel at the State and local levels.
  3. Use standard educational terms, definitions, and measures as contained in Handbooks I, II, and III.
  4. Improve forms, procedures, and techniques for collecting, verifying, processing, analyzing, interpreting, and disseminating statistical information to:
    - a. Assure the maximum quality and usefulness of such data.
    - b. Eliminate duplication.
    - c. Increase the accuracy and speed of reporting.
    - d. Show more clearly the conditions and problems of education.
    - e. Improve the quality of distribution of publications or other arrangements for disseminating statistical data.
  5. Hold conferences, engage consultants, and make studies to determine what types of mechanical equipment are best suited to the needs of the department.
  6. Procure equipment recommended as desirable and necessary and employ additional personnel as needed.
  7. Continually evaluate the uses made of the mechanical equipment, revising and expanding the program whenever desirable or necessary.
- E. Develop a system of uniform budgeting, accounting, and auditing.
1. Review and evaluate present system.
  2. Hold conferences for planning the program to be implemented.
  3. Develop a system of uniform budgeting, accounting, auditing, and reporting of school finances, including school transportation and school lunch program financial accounts, consistent with Handbooks II and III.
  4. Install and use electronic or other data processing machines to speed up collecting, verifying, processing, analyzing, interpreting, and disseminating information about finances.
  5. Hold inservice training programs for local and State personnel.

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### VI. Implementation of Program

- A. *FY 1959*: No program in operation.
- B. *FY 1960*: No program in operation.

## DISTRICT OF COLUMBIA

I. Official Agency: Board of Education of the District of Columbia

II. Administered by: Superintendent of Schools

III. Effective Date: Feb. 19, 1959

### IV. General Policies and Purposes

To improve and increase the overall statistical service of the District of Columbia public school system:

- A. Through use of standard educational terms, definitions, and measures.
- B. By speeding up the collecting, analyzing, and disseminating of information about education through the use of data processing machines.
- C. By coordinating its statistical work and data with neighbor agencies, such as the U.S. Office of Education, the National Education Association, and with other school systems throughout the country.

### V. Proposed Program

#### *Improvement of Statistical Services in the District of Columbia Public School System*

- A. Installation and use of electronic or other data processing machines.

To speed up the tabulating, analyzing, and disseminating of statistical information and data:

1. Enter on punch cards the personnel and pupil data collected from schools and other sources. (The type of data to be entered will be determined by the Superintendent of Schools; the Assistant Superintendent in charge of General Research, Budget, and Legislation, the Statistician; and other members of the Superintendent's staff concerned.)
  2. After the data has been entered on the cards, deliver cards to a Service Bureau for tabulating.
  3. File the cards dealing with child accounting and those for personnel accounting in separate areas so the statistical office can give better service to the numerous requests for data.
- B. The improvement of forms, procedures, and techniques for collecting and disseminating statistical information.
    1. Evaluate present forms, procedures, and techniques.
    2. Establish a friendly working agreement with other city school systems for the purpose of exchanging ideas and forms as well as information on procedures and techniques for collecting data.

3. Visit other city school systems for the purpose of observing first-hand not only the facilities and techniques used in collecting data but the use made of the data collected and the methods used in disseminating the processed data.
4. Establish a file for each city school system that is willing to cooperate with the study. This file would contain correspondence, reports, forms, tables, publications, bulletins, releases, directories, and all other material pertinent to the study.
5. Form a standing committee with the representatives from each school level and from the various departments concerned to evaluate all data collected and assist with the final selection of forms, procedures, and techniques for collecting and disseminating information.
6. Coordinate new forms for collecting data with terms and definitions in Handbook I, *The Common Core of State Educational Information*.

#### VI. Implementation of Program

- A. *FY 1959*: No program in operation.
- B. *FY 1960*: No program in operation.

## FLORIDA

I. Official Agency: State Board of Education of Florida

II. Administered by: Superintendent of Public Instruction  
Specified Division Directors<sup>1</sup>

III. Effective Date: Dec. 19, 1958 (amended Mar. 23, 1959)

#### IV. General Policies and Purposes

- A. Improve the collection, analysis, and reporting of statistical data supplied by local educational units.
- B. Improve the collection of educational data from other State agencies.
- C. Expedite the reporting and processing of statistical data.
- D. Evaluate present program of statistical services.
- E. Through research and projection, plan for improving the total educational program.
- F. Provide complete and comparable data for use by the U.S. Office of Education, the various State departments of education, universities and colleges, organizations, and interested lay people.

#### V. Proposed Program

*Extended Program for Improvement of Statistical Services*

- A. Evaluate current statistical services.
  1. Study sources of educational data within and outside the State—both public and nonpublic.

<sup>1</sup> Divisions of: Special Executive Services; Administration and Finance; Teacher Education, Certification, and Accreditation; Instructional Field Services; Community Junior Colleges; Vocational and Adult Education; and Vocational Rehabilitation. (A Coordinator of title X, under the direction of the respective division directors, works as a liaison with the National Defense Education Act Coordinator responsible for all titles.)

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2. Study appropriateness of periodic reports correlated with need.
  3. Study research aspects and potentialities of using samplings.
  4. Study appropriate potential reorganization of the Department, based on increased understanding of actual collecting, processing, and disseminating procedures.
  5. Develop existing staff requirements for statistical personnel.
- B. Analyze reporting forms now in use.
1. For duplication and elimination of unnecessary items.
  2. For simplification of forms.
  3. To determine time when information is available and required.
  4. To determine necessary information not now being gathered.
  5. To provide for the preparation of new forms.
- C. Evaluate procedures of reporting developed with local educational agencies.
1. Use conferences and consultation with local statistical personnel to develop improved procedures of reporting.
- D. Work with local education agencies to improve the keeping of records and preparation of reports, budgets, and financial statements.
1. Provide training for local statistical personnel through conferences and consultation with State personnel of the various divisions.
  2. Study annual finance reports, teachers' registers, accounting manuals for school boards, and principals' records and reports, as well as reports on internal accounts, annual budgets, and transportation.
- E. Prepare new and revised statistical reports covering all phases of the department.
1. Additional reports will include pupil accounting forms and reports, insurance reports, property record manuals and reports, school laws, the annual State superintendent's report, State board regulations, and survey reports.
- F. Add new mechanical equipment.
1. Rent such equipment as calculators, accounting machines, and electric computers for collection and processing of data.

### VI. Implementation of Program

A. FY 1959: Federal funds	\$28,988.24
State funds	30,203.89
Total	\$59,191.63

One of the first to submit a plan, the Florida State education agency, immediately provided for an evaluation of the entire statistical services program. To evaluate and plan for the statistical services program, the State superintendent early in 1959 appointed a coordinator of title X as a liaison with the newly

appointed coordinator of NDEA and statistical personnel in the seven divisions of the department. An advisory committee and a steering committee were established to work with these personnel.

Previously, major statistical collection and analysis had been done in the Division of Administration and Finance and the Division of Teacher Education, Certification, and Accreditation. The director of administration and finance appointed a coordinator of fiscal records and a statistical analyst and reassigned such personnel as could be made available on part-time basis to the new evaluative work. The director of teacher education, certification, and accreditation appointed a coordinator of instructional records and reassigned existing personnel to appropriate responsibilities in terms of the new program. Through a series of weekly meetings under the direction of the coordinator of title X, these people and representatives of the other divisions produced a projected plan for improving department-wide statistical services. This plan included standardization of request forms to the counties, changes in data processing procedures, and the reduction of total forms needed through the use of improved data processing techniques. It reorganized procedures of operation throughout the various divisions.

The title X staff also played a major role in planning, organizing, and carrying on a series of conferences with finance officers, secondary principals, county superintendents, and supervisors to improve statistical services. These personnel reviewed annual finance reports, teachers' registers, and principals' records and reports, as well as reports on accreditation, internal accounts, annual budgets, and transportation. Accreditation reports were made available for the first time to nonpublic schools.

Over \$8,000 was spent in FY 1959 for purchase or rental of new data processing machinery. Mainly, these were printing calculators, test-scoring machines, an accounting machine, desk calculators, electronic sorter, calculating punch, a statistical machine, and keypunch and key-verifier machines.

The department arranged for 25 of its members to participate in a training program in data processing.

B. <i>FY 1960: Federal funds</i> .....	\$50,000.00
<i>State funds</i> .....	68,190.93
<b>Total</b> .....	<b>\$118,190.93</b>

During this fiscal year a series of meetings were held with the advisory committee of title X which has been constituted largely of personnel within the State department of education. In addition to this particular group, there were steering committees for automatic data processing and advisory committees on micro-filming. All of these groups, at different times, elected the use of personnel in various parts of the educational system throughout the State, and on a few selected occasions employed consultative services of personnel in other departments of education for specific jobs in determining optimum statistical services. A specific item in this regard was the invitation to personnel from

other departments of education to help in establishing a priority of applications for automatic data processing.

A Univac Solid State Eighty tape configuration was placed on order and much time and effort during fiscal 1960 was spent in the necessary planning. The evaluation of current statistical practices has included a complete review of all forms used, the potential reduction and rescheduling of the total number of forms required, a check with local school systems in regard to forms being utilized at that level, and general evaluation of procedures and practices being carried on by the department in fiscal and curriculum service areas. Studies of personnel, travel, and operation of such department functions as scholarships have been studied as part of a total evaluative picture. This will, when completed, include an evaluation of every practice relative to forms and records in all sections. Reports of this evaluation are directed to the steering committee for their consideration and subsequently to the State superintendent for action and implementation.

There has been a marked effort this year to reorganize certain functions; the reorganization of all automatic data processing has been the most involved. Organizationally, the department released all processing units from current status and created a single unit responsible to the deputy superintendent.

In the expansion of the data processing system, scope of data collection has been considered. It is anticipated that during the coming year it will be possible to expand the scope of data collected to include many items which are not now specifically included, such as school sites, special education, and personnel data on individual students. The new tapes of the data processing system will include personnel records as well as a transfer of all existing records from current card operation.

Two meetings were held during the year for financial officers, and one meeting was held for automatic data processing personnel in the counties. These meetings provided an opportunity to review current mechanisms, codes, and standardization of terminology, and should lead toward substantially improved accuracy in the data from this particular State.

A communication center was developed and equipped to make the dissemination of information more articulate, more acceptable, and in some cases, far more glamorous than the usual production of narrative and statistical reports.

Committees of the department have studied carefully the storage of current data cards and information on forms. Microfilming was initiated early in this fiscal year, and this program calls for the complete microfilming of all forms and potentially bringing to a current status the microfilming of all records utilized by more than one office. Through the centralization of available services such as the communication center mentioned above, the resources of all divisions, departments, and subsections would be available and in this procedure, obviously would bring by standard organization tremendous impact on the improvement and maintenance of existing data.



GEORGIA

I. Official Agency: State Department of Education

II. Administered by: Division of Administration

III. Effective Date: Dec. 12, 1958

IV. General Policies and Purposes

To create and maintain an adequate and efficient statistical service, at the local and State levels, which will:

- A. Provide accurate and valid statistical data in areas where there is need for reporting.
- B. Provide needed educational data on a current basis.
- C. Be comparable in content and terminology to that generally used throughout the Nation and facilitate reporting to the Commissioner of the U.S. Office of Education.

V. Proposed Program

*Establishment of a Unit of Statistical Services and a Program of Improvement of Such Services*

- A. Establish a statistical services unit in the State education agency with new personnel to staff such unit.
- B. Evaluate existing statistical services to develop and establish new and revised forms and procedures.
- C. Provide electronic equipment and other machines to speed up the collection, analysis, and dissemination of educational information.
- D. Provide inservice education for the statistical services staff and representatives of local units to improve the recording, reporting, analyzing, interpreting, and disseminating of educational data.
- E. Plan and implement more effective dissemination of educational data.
- F. Prepare and distribute to appropriate agencies a State handbook for statistical services.
- G. Microfilm essential records which must be maintained and properly stored over long periods of time.

VI. Implementation of Program

A. FY 1959: Federal funds	\$30,000.00
State funds	80,000.00
	<hr/>
Total	\$60,000.00

Before title X, statistical services were limited as to scope and function. Other than using annual reports from local public school systems for computing teacher and fiscal allotments, no regular and concerted efforts were made for the best use of local-to-State reporting. Various staff members collected statistical data to meet the needs of specific situations, but the collection was not done in a centralized and continuous fashion. There was no inservice program for statistical personnel. The State Superintendent's biennial report was the only instrument for disseminating information about the condition and progress of education in the State.



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Just 6 months after the plan was approved, a statistical services unit had been established. A chief for the unit was appointed, as well as two statistical clerks.

The biggest task during this 6-month period was preparing and distributing internal accounting forms to each local public school in the State. (The State Legislature had passed an act requiring the education department to do this.) These forms provide access to more complete and accurate fiscal and property records in the local schools and help the local superintendent collect information for the annual reports.

The head of the statistical services unit was studying each of the regular local-to-State reporting forms. He planned to secure consultative services from the State University in making an organized and detailed evaluation of the reporting forms and procedures. The unit was cognizant of data not being collected and planned to develop forms for new data. Tentative patterns were set for the processing of data collected from local agencies and for working with other departmental units. Through the two statistical clerks, processing of data was speeded up, and accuracy had been improved by cross-checking items. Georgia already had some machine operations in effect, but the department spent almost \$27,000 in 6 months for the purchase of additional office machinery and equipment, including calculators, a multilith, microfilm equipment, and IBM control panels and wire complements.

Five conferences of superintendents had been held. Part of the training program was devoted to the use of the local school internal accounting forms.

B. FY 1960: Federal funds	\$50,000.00
State funds	50,000.00
Total	<hr/> \$100,000.00

At the end of the 1959 fiscal year, the Statistical Services Unit was composed of the supervisor and two statistical clerks. During fiscal year 1960, these three positions were continued and the following positions were added:

- 1 coordinator of Federal activities and statistical services
- 1 secretary to the coordinator
- 1 assistant supervisor of statistical services
- 3 secretaries
- 3 statistical technicians
- 1 director of data processing
- 1 statistical clerk (two months)

The State department of education has an agreement with the Bureau of Educational Studies and Field Studies of the University of Georgia for consultative service under this program. The Statistical Services Unit utilized 265 man days of such consultative service from this bureau in fiscal year 1960.

The scope of data collected was expanded to include needed information which was not previously available. These included information regarding private schools, teacher supply and de-

mand, academically talented students, college entrance of high school graduates, and mark-sense surveys of teacher duties and qualifications.

Lines of communication have been opened and personal visits have been made to other agencies concerned with educational data in Georgia. A study has been made of the scope of data collection and processing facilities of these agencies and mailing lists have been developed for better intercommunication.

Revision of collection forms and instructions, statewide conferences for local school system personnel, district and system level conferences for principals and superintendents, and inservice training and experience of the statistical unit personnel have improved the accuracy of data and the procedures for verification.

A sampling technique was used in connection with the survey of academically talented students and will be used in other special projects. Projections have been made in the field of pupil enrollment and average daily attendance.

Forms have been developed for financial and property accounting in the State's public schools and workshops have been conducted to acquaint principals with their effective use.

During fiscal year 1960, three printing calculators and one accounting machine have been purchased. One statistical machine and one reproducing punch have been acquired on a rental basis.

## GUAM

- I. Official Agency: Territorial Board of Education, Territory of Guam
- II. Administered by: Director of Education, Government of Guam (or his designates)
- III. Effective Date: Nov. 7, 1960
- IV. General Policies and Purposes
  - A. Determine the kinds of statistical data which should be collected and review data now being collected in order to ascertain means and areas for improvement and expansion.
  - B. Improve the reporting of data at the initial source, develop guides and manuals for use at the reporting level, and conduct conferences and seminars at local and regional levels for training purposes.
  - C. Collect the needed data from the local sources by the most economical and efficient methods and conduct periodic reviews for the purpose of evaluating the program of records and reports.
  - D. Verify, collate, and organize data at the State level for maximum utility at the earliest possible date through leadership in the selection and use of mechanical equipment at local and regional levels.
  - E. Select at the State level additional personnel and mechanical equipment where needed for the purpose of improving and expanding the program.

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### V. Proposed Program

#### *Program for Improving Statistical Services*

#### A. Conversion to machine processing of statistical data.

At present, all data processing is done manually. It is proposed that mechanical data processing equipment, forms, cards, etc., will be purchased or rented subject to availability of funds, and that a transition from manual methods to machine processing be made. Housing for such a machine installation will be necessary, and will be air conditioned to control humidity. In addition to the installation of machine data processing, it is proposed that a program of microfilming in connection with records management, condensing for statistical purposes, be established, including necessary forms and supplies.

#### B. Inservice training of staff and other statistical reporting personnel.

Provision will be made for inservice training programs for State and local statistical reporting personnel, using such consultative and resource personnel as may be needed.

Because of the geographical location of Guam, it will doubtless be necessary for personnel to receive training in machine processing at other locations. The closest possible point for such training would be Honolulu, Hawaii. It is proposed to conduct inservice training in statistical reporting, methods, techniques, and procedures for Territorial and local personnel with applicable representatives from all levels concerned.

#### C. Implementation of standard terminology and definitions.

The use of standard terminology, definitions, and measures in the Territory's statistical services in order to achieve comparability of data will be implemented in accordance with cooperatively developed nationwide principles of educational accounting and statistical reporting.

Some of the terminology as set forth in the U.S. Office of Education handbooks have been adopted, and the activity, for all practical purposes, is an expansion of an existing program. Forms will be revised to include standard terminology, definitions, and measures, while guidelines and manuals will be developed and produced to assist local schools and other agencies in the area of providing comparable and adequate information about education.

#### D. Expansion of staff.

Improvement and expansion of statistical services appears to be dependent, to a degree, on expansion of the existing staff. Added positions in the Territorial department of education will be commensurate with the expansion of the programs involved, such as machine processing, inservice training, or implementation of standard terminology and definitions.

#### E. Dissemination of information about education.

Plans will be made and implemented for more effective dissemination of educational data. This activity is an expansion of existing services, which have been limited to those procedures required by school programs and special requests. In keeping with this program the purchase of an offset duplicating system is

proposed as well as other necessary equipment, forms, supplies, and contractual services.

#### VI. Implementation of Program

A. *FY 1959*: No program in operation.

B. *FY 1960*: No program in operation.

(*Note*: Guam's plan for improving statistical services became effective in *FY 1961*.)

## HAWAII

I. **Official Agency**: State Department of Public Instruction

II. **Administered by**: Deputy Superintendent for Research and Statistics

III. **Effective Date**: Dec. 5, 1958 (amended Apr. 20, 1959 and Jan. 4, 1960)

#### IV. General Policies and Purposes

To improve and strengthen the adequacy and reliability of educational statistics provided by records and reports and the methods and techniques for collecting and processing educational data and disseminating information about the condition and progress of education in the State.

#### V. Proposed Program

##### *Improvement of Statistical Services of the State Education Agency*

A. Develop the forms, procedures, and techniques for collecting, analyzing, and disseminating information about education to insure the maximum quality and use of such data. These activities will naturally improve and speed up present operations. The tabulated and analyzed data will be sent to the schools and other administrative units for their use in further improving the educational program. Conferences and workshops will be held with these administrative units to assist them in the use of data provided them through this unit.

B. To carry out the activities named above, it is proposed that the department acquire the needed equipment. This will include:

3 key punches	1 tabulator
1 verifier	1 reproducer
1 sorter	
1 collator	

Other similar equipment needed to process the data secured and to make the necessary reports.

Some title X funds will be used to renovate a room for this unit.

C. To carry out the activities, it is proposed that the following personnel be employed for a machine tabulating unit to be established in the Division of Research and Statistics:

1 tabulating machine supervisor  
 3 operators for key punches and other tabulating machines to be acquired  
 2 clerks or clerk-typists

Other personnel may be employed for statistical purposes as the program requires.

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The additional persons employed to put this unit into operation will be trained in the use of electronic tabulating machines and the processing of data through this type of machine. They will work with the professional staff in the several services to program their data through these machines. Inservice training for staff personnel will be conducted to accomplish this end. This machine tabulating unit will be used to process pupil personnel data, such as test scores, enrollment and attendance, health conditions, Federal-impact pupils, subject selections, pupil census, and followup studies. It will also be used to process teacher data, such as training, salaries, and years of service; to modernize procedures for handling records and reports covering financial, personnel, facilities and equipment, and other data pertinent to the operations of the Hawaii system of education. Finally, the unit will be used for the preparation of needed statistical reports in all the areas listed above.

- D. Statistical services will be improved through the use of standard educational terms, definitions, and measures as exemplified by the cooperatively developed national handbooks, *The Common Core of State Educational Information* and *Financial Accounting for Local and State School Systems*. A new uniform school accounting system will be developed for all the schools in the State using the handbook *Financial Accounting for School Activities* as a guide. Personnel will be employed for this purpose and to assist school administrators in establishing it in their schools.

### VI. Implementation of Program

A. FY 1959: Federal funds .....	\$4,031.76
State funds .....	4,031.80
Total .....	<u>\$8,063.56</u>

Automatic data processing was initiated and two key punch operators were employed. Two key punches, one verifier, and one sorter were placed in operation and other equipment, including a tab machine, was placed on order. One staff member participated in an IBM training course.

All work related to research and statistics was reorganized into a new division headed by a deputy superintendent. He will direct all research and statistical services, including the operation of the automatic data processing unit.

New forms were developed and distributed to the schools for recording data on each child. These provide for information printed by the tab machine on a gummed label to be pasted in the forms in order to reduce the manual labor involved in preparation.

Plans were developed for the collection of more extensive data on the abilities and training of teachers.

B. FY 1960: Federal funds .....	\$31,195.51
State funds .....	31,195.52
Total .....	<u>\$62,391.03</u>

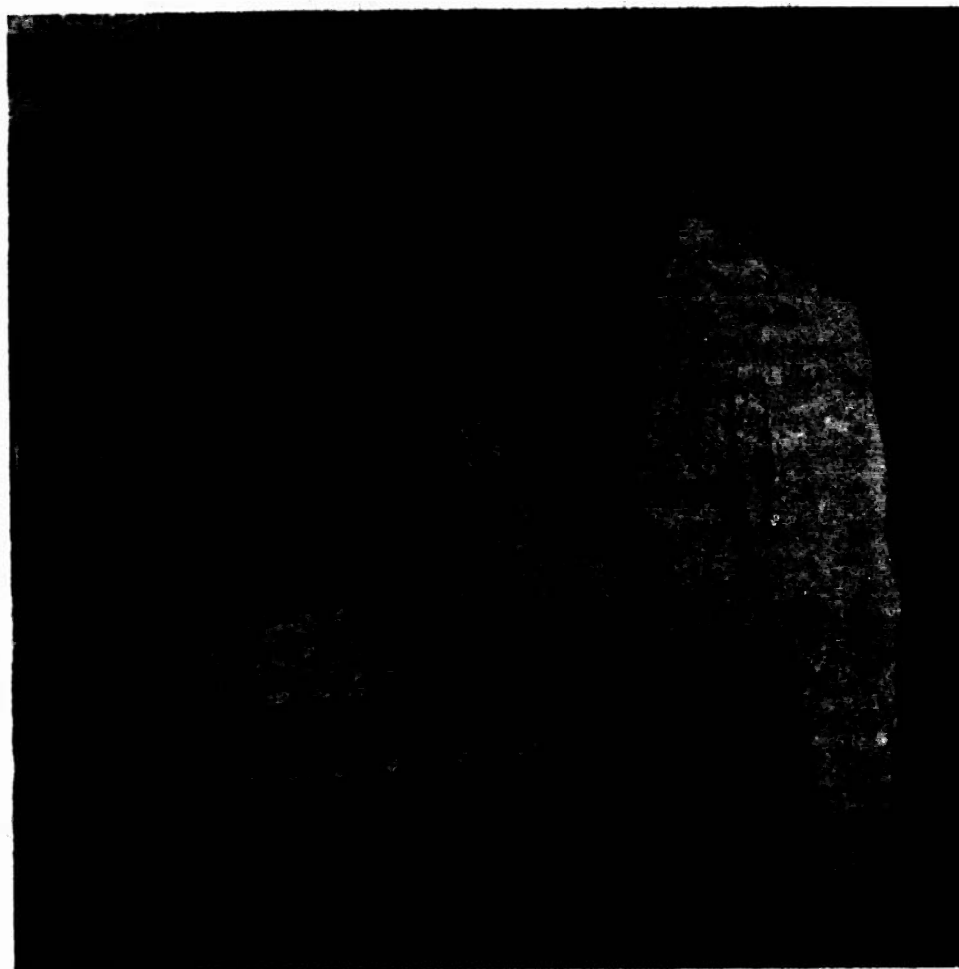
Three positions were added to the statistical services staff: a deputy superintendent for research and statistics, a data processing supervisor, and a tabulating machine operator.

The Division of Research and Statistics was reorganized to include three sections: Tests and Measurements; Surveys and Statistical Services; and Data Processing. Each section is headed by a professional director or a classified supervisor.

Consolidation of these responsibilities in one unit is designed to strengthen the services within the department and to reduce or eliminate overlapping, independent, fractional statistical and research units. Specialized services will be made available to administrative units and to individual staff members.

Housing facilities for the data processing section were completed and equipment was installed on arrival. The unit began full operation on Mar. 1, 1960.

Continuous evaluation was made of data collection procedures, forms, instructions, and methods of checking. Changes have been made where needed.



*Peggy Nichol Photos*

**Staff members of the Hawaii State Department of Public Instruction inspect one of the many new machines—a tabulator—installed with the help of title X funds.**

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Pilot studies were undertaken in two large schools to apply machine data processing to school registration, accounting, and reporting.

Techniques such as prepunched basic data and mark-sensing were developed to speed data processing.

### IDAHO

- I. Official Agency: State Board of Education
- II. Administered by: Director of Finance  
Director of Research and Statistics
- III. Effective Date: Jan. 19, 1959
- IV. General Policies and Purposes

- A. Analyze, evaluate, revise, and broaden existing accounting programs, including statewide uniform systems of property accounting and statistical records; develop additional accounting and reporting manuals for use at the local district level.
- B. Provide for adequate supervision by the State agency of financial accounting practices.
- C. Provide methods and means for the collection of necessary information and data not now collected which will benefit and strengthen the State's educational program.
- D. Evaluate and utilize collected data and information.
- E. Publish statistical information and data collected for use by school district, legislature, trustees, law groups, individuals, other States, and the U.S. Office of Education.
- F. Improve the collection, analysis, and reporting of statistical data supplied by local districts.
- G. Expand amount and kinds of statistical data and information now being provided.
- H. Expand the State office staff to enable the program to be carried out.
- I. Expedite the processing and reporting of statistical data through installation and operation of mechanical equipment.
- J. Conduct conferences and training programs at local district levels to strengthen the program and to provide for periodic review and evaluation of such program.
- K. Provide for the improvement of staff personnel by attending conferences and workshops, analysis of other State programs through personal visitations in other States, and attending conferences called by the U.S. Office of Education.

#### V. Proposed Program

*Development, Expansion, and Improvement of the Research  
Program and Statistical Services of the State  
Department of Education*

- A. Improve the collecting, reporting, and analysis of statistical data.



1. Conduct a survey to determine what data research and analyses are needed to meet educational needs of local districts, the State department of education, the U.S. Office of Education, and other governmental agencies.
  2. Review, analyze, and evaluate the present program of records and reporting forms to determine completeness, clarity, and ease of processing. Revise or develop new and additional forms.
  3. Improve dissemination of information through bulletins, reports, and other means of communication.
- B. Conduct workshops, conferences, and training programs to instruct and train local school district personnel in the interpretation and use of departmental manuals, reports, and record forms.
- C. Improve methods and procedures for obtaining pertinent data from other State agencies.
1. Determine what information not now being collected is available and useful.
  2. Set up procedures and policies relative to the collection of such information.
- D. Improve procedures and practices for recording and processing statistical and other educational data through the installation and use of mechanical and other equipment.
1. Survey facilities and determine needs for mechanical and electronic processing equipment in relation to the present program and proposed program expansion.
  2. Purchase and install additional equipment which will broaden and strengthen the present and proposed program. (Rent additional office space as needed.)
- E. Develop methods for organization, processing, maintenance, and dissemination of current recording, reporting, and research materials.
- F. Provide for periodic evaluation of the statistical services program, adjusting program to meet changing conditions as determined by such evaluations.

#### VI. Implementation of Program

A. <i>FY 1959</i> : No program in operation.	
B. <i>FY 1960</i> : Federal funds .....	\$ 2,975.29
State funds .....	10,641.27
	<hr/>
Total .....	\$13,616.56

Idaho has made good progress in establishing a statistical services unit, already placing such services under one staff director. The department is intensively reviewing present collection forms and procedures.

Before title X, practically all of the data collected was that required by law in support of the local district's claim for State and county minimum educational funds. The department prepared a biennial report, an annual financial and statistical summary of school district operations, statistical data on education personnel in the public schools, and informational bulletins as

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time permitted. The staff plans, under title X, to increase the kinds of material included in the annual reports and to issue information and research bulletins that have not before been provided. They are bringing their various forms in pupil accounting into conformity with Handbook I, thus showing progress in standardization of terminology.

Just before the National Defense Education Act was passed, a committee created by the State legislature completed a uniform accounting system and the State board of education approved it. Some preliminary work had also been done by a committee on teacher certification and standards. The department is now considering putting teacher personnel information on a punch-card system.

### ILLINOIS

- I. Official Agency: Superintendent of Public Instruction
- II. Administered by: Superintendent of Public Instruction  
First Assistant Superintendent of Public Instruction  
Director of Statistics and Research
- III. Effective Date: Mar. 9, 1959 (amended Feb. 23, 1960)
- IV. General Policies and Purposes
  - A. Carry on a continuous program of study and evaluation of records and reports.
  - B. Improve the methods of collecting, processing, and analyzing statistical data and other information pertinent to education.
  - C. Develop ways and means of reporting information on the county and local levels and from other State agencies, associations, and persons.
  - D. Develop forms and methods for obtaining information from other State agencies and from associations and commissions.
  - E. Write manuals, guides, and a check list for local educational systems that will give definite and specific helps in accounting and reporting.
  - F. Develop a program for providing workshops, conferences, and educational clinics for training personnel in county and local educational units.
  - G. Provide the necessary machines to do a systematic job of processing statistical data of various types.

#### V. Proposed Program

*Improvement of Statistical Services in the Office of  
Superintendent of Public Instruction,  
State of Illinois*

- A. Analyze and evaluate reporting forms and improve reporting system.
  1. Study forms for duplication, simplification, and time element with respect to need and availability of information.

2. Provide for the preparation of new forms in accordance with findings of the study, deleting unnecessary items and providing additional information not now collected.
  3. Secure uniformity of data and terminology through the use of Handbook I, *The Common Core of Educational Information*.
- B. Provide professional services to improve reports and reporting systems essential to the collection and dissemination of information pertinent to education at local, intermediate, and State levels, including educational and other agencies.
1. Study the areas of service.
  2. Revise existing forms and design new forms to acquire the most functional information possible.
  3. Stress accuracy, completeness, need, time of need, use, and convenience of executing the reports.
  4. Prepare manuals to use on all levels and for internal control with respect to a coordinated system, including aid for adapting Handbook I to immediate needs.
  5. Provide training for all personnel responsible for operating the reporting system successfully—  
Through clinics, personal visitations, group meetings, and wide dissemination of handbooks when written.
- C. Coordinate and centralize all reports and statistics, as is feasible, with a centralized library or a statistical center in which reports, processed cards, microfilms, and other pertinent data are logically classified for practical use.
1. Study all current forms in use by each division to plan the type and size of statistical service unit needed.
  2. Determine type and arrangement of storage and safe-keeping of forms, microfilms, process cards, and other pertinent data.
  3. Arrange for practical work space and convenient accessibility of equipment.
  4. Study the forms, reports, and data for the improvement of services in order to eliminate all unnecessary items, delete duplications, and consolidate and integrate reports and report forms.
  5. Familiarize the various departments with the services of other departments.
- D. Revise the uniform financial accounting system.
1. Evaluate present system.
  2. Review available materials relating to new and improved accounting systems.
  3. Determine areas and items to be revised.
  4. Introduce into the legislature bills to permit standardization of the accounting systems on State, intermediate, and local levels.
  5. Initiate the program for an accounting system in intermediate and local school district systems in conformity with Handbook II.

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6. Make revision of forms necessary to utilize machine accounting.
  7. Hold workshops, clinics, and conferences with school officials responsible for the respective accounting systems.
  8. Complete the program for school accounting according to the provisions of Handbook II, setting July 1, 1961, as the definite date on which all school accounting will be uniform.
  9. Develop and reproduce manuals and other supplementary materials to clarify the revised accounting system, particularly with reference to the application of the provisions of Handbook II.
- E. Establish a system of school property accounting (in accordance with Handbook III).
1. Develop an appropriate system of reporting that will furnish essential data quickly and accurately.
    - a. Through study of the U.S. Office of Education suggestions that have been cooperatively developed, statutory requirements, and data collected from other States, determine areas and items to be included in property accounting programs.
    - b. Develop initial accounting forms for collecting information and statistical data.
    - c. Adapt machine accounting to the new plan for analyzing data.
    - d. Hold inservice training programs to familiarize local and intermediate school officials with terminology and procedures found in Handbook III.
  2. Using Handbook III as a guide, prepare property accounting system to be followed after initial or trial system has been tried and evaluated.
- F. Revise the system of pupil accounting.
1. Through improved and appropriate reports and reporting system.
    - a. Provide uniform and accurate data.
    - b. Provide useful data in usable form.
  2. Through establishing and requiring an accurate and uniform pupil-reporting system on the State, intermediate, and local school district levels, stressing uniform data.
    - a. By a preliminary study of practices used in the schools of the State, other State systems, terms used in Handbook I, and State statutes, prepare an initial group of forms to introduce the system to local and intermediate school district units.
    - b. Provide an extensive program of workshops, conferences, and activities for inservice training of school officials.
    - c. Prepare an accounting manual.
    - d. Develop final form of accounting system and report forms.

- G. Institute a system of educational program accounting.
1. Develop an appropriate reporting system to supply important and essential data on the educational programs in the local school district units.
    - a. Study State superintendent's annual reports for data now being collected as well as practices and recommendations relating to programs for all levels of instruction from other State departments of education, universities and colleges, and the U.S. Office of Education.
    - b. Determine items and areas to be included in the reporting system, including such items as are related to the quality of the program, i.e., drop-outs, teacher preparation, library and textbook statistics, equipment, and the depth, level, and extent of the program.
    - c. Hold inservice training programs.
    - d. Draft forms for collecting information, making revisions as are necessary as program progresses.
    - e. Convert as much data as possible to machine processing.
    - f. Through analysis, evaluation, and revision, develop final forms for reports and reporting system.
- H. Install statistical machines and electronic equipment for processing data.
1. Develop statistical reports from all pertinent data relating to all of the departments under the superintendent of public instruction.
  2. Transcribe all possible data to cards for processing by machines to produce accurate and detailed statistical reports more quickly and on a current basis.
  3. Coordinate and centralize reports and statistics from all departments.
  4. Provide for rental of space to accommodate additional data processing equipment.
  5. Provide inservice training for staff members in the area of data processing equipment and procedures.
- I. Provide a statistical review staff with a system and schedule of operation for processing statistical data and preparation of statistical reports.
1. Plan a more carefully designed and accelerated program of selecting and processing useful and pertinent data and preparing statistical reports.
    - a. Review present practices of processing statistics, select areas in which to work, and study procedures for preparing reports.
    - b. Determine the type and extent of statistical reports to be made.
    - c. Continue to convert reports and data to machine processing.

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- d. Coordinate reports when possible to serve additional groups or departments.
  - e. Convert to machine operation statistics for the annual report to make it more current and useful.
  - f. Prepare special reports after study and evaluation (those needed on occasion only and those that appear necessary for long intervals of time).
  - g. After determining areas, make reports on data from sampling and projections for future anticipated needs. (This appears to be feasible when the basic program has been more fully developed.)
  - h. Make available printed or reproduced reports to departments, school officials, and other agencies.
2. Continue study and evaluation of entire program of processing statistical data and preparation and interpretation of reports.
- J. Provide equipment and consumable supplies to expedite reporting, processing, preparing, and distributing reports to local and county educational units and to other agencies and persons where the need is obvious (to cover needs not expressly stipulated elsewhere in the program).
1. Study the machines and supplies now in use in the central office to determine those obsolete.
  2. Determine new, additional, or improved types of machines and supplies needed.
  3. Provide such equipment and supplies to speed the collection, preparation, and distribution of reports, making necessary adjustments as determined by evaluation and experience and trial.
- K. Collect and utilize other useful and important information not now collected and disseminated.
1. Carry on an exchange of useful, pertinent, and important information with other agencies, professional organizations, and persons having related educational interests or need of such information as collected by the department.
  2. Prepare statistical reports on information not previously collected or disseminated, converting as much as possible to machine processing.
  3. If possible, coordinate the information received from other organizations with that of the Office of the Superintendent of Public Instruction to give a more integrated type of statistical report.
  4. Using the experience gained in this pilot or trial study and with a more intensive evaluation, formulate and print or reproduce the program of collecting and distributing the information not now being done.
  5. Reproduce a roster of agencies together with the necessary information, guides, and conditions under which data and reports are to be collected and distributed. (This activity has been only partially developed.)

6. Use advisory committee representing the various organizations and agencies to achieve this part of the program.

#### VI. Implementation of Program

A. FY 1959: Federal funds .....	\$ 7,159.32
State funds .....	7,159.32
Total .....	<u>\$14,318.64</u>

Before title X, each division or department kept its own records, reports, and report forms. Two types of data, in the Department of Teacher Certification, were being processed by machines. All other data and reports were processed manually.

The Office of the Superintendent of Public Instruction required an annual report from all the schools with information on such items as buildings, enrollments, teachers, curriculum requirements, salaries, etc., but no overall evaluation of the quality of the educational program was made.

In the 4 short months left in fiscal 1959 after the plan was approved, Illinois concentrated on improving the methods of student accounting, emphasizing to local school officials the importance of accuracy in data collection. Required reports and claims submitted by all the schools involved a sum of \$325 million for the next biennium, so the State education agency developed and distributed literature on requirements for a better system of student and transportation accounting, stressing the fact that all such data would be audited. Two publications, *State Plan—Improvement of Statistical Services* and *Improvement in Pupil and Transportation Accounting*, were prepared and distributed.

Some evaluation was underway, a committee was appointed to help adapt Handbook II, information from the Illinois Education Association and the Illinois Association of School Boards was collected, and data for the statistical report were analyzed and interpreted in cooperation with 100 other officials, with some of the 184 tables being eliminated and others added. (The annual statistical report was undergoing a complete revision. It will conform much more to the national handbook.) Visits were made to other States to observe statistical processing machines, and 1-day conferences and workshops for inservice training were held. Staff members and heads of divisions met to become acquainted with and discuss the statistical services program. Meetings between the administrative staff and the advisory committee were held. All reports were evaluated to some extent and three report forms were revised and improved.

The time element was the main difficulty in the first year. From March to June a great deal of work had to be planned, printed, and distributed without complete evaluation. This was the reason for concentrating on what was thought to be the most urgent—student accounting.

B. FY 1960: Federal funds .....	\$25,755.35
State funds .....	25,755.36
Total .....	<u>\$51,510.71</u>



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Careful, complete evaluation of the entire statistical services program was planned and was continuing. The directors of the various divisions constituted the evaluation committee. Other staff members were called upon to help in order to coordinate and centralise statistical services in all possible ways. In January 1960 a meeting was held to study thoroughly the national handbooks so that the evaluation would be in conformity with standard terminology and accounting procedures. The State advisory committee had approved the adoption of Handbooks I, II, and III a month before and the evaluation proceeded on that basis. (The evaluation report was submitted to the U.S. Commissioner of Education. Evaluation continued.)

Progress continued in adapting pupil accounting to terminology used in Handbook I. Although Illinois continued to use the old register in the fall of 1959, new entry and withdrawal classifications were used. The adoption of these new classifications was a big step in implementing Handbook I. Later, new registers were developed by publishers which enabled local school districts to keep attendance records in a relatively uniform manner and in accord with the regulations of the State agency concerning the required information. Thus indirectly, but very satisfactorily, a uniform method of pupil accounting was being achieved. (The State agency does not specify a particular register.)

Understaffing proved to be one of the main problems in carrying out the huge task planned for improving the statistical services program. However, in January 1960 the department added a new machines programmer to the staff. During the summer of 1960, the staff of title X was increased to 13 full-time employees and 1 part-time director. Four operators worked on an extra shift basis. Staff members visited other States to see actual data processing machines in action.

The State superintendent drew up a statement clearly outlining just what kind of information and data was needed, along with samples of forms, reports, handbooks, etc., to acquaint machine representatives with the kind of data to be processed.

By January 1960 Illinois was buying or renting a considerable amount of IBM equipment and contemplating the purchase of an accounting machine to compute some of the reimbursement claims and produce cards to be used with the IBM equipment. It was found that the department would have to rent additional space to house this equipment.

The equipment acquired on a rental basis included three key punch machines, three verifiers, and a sorter, collator, statistical machine, duplicating punch, interpreter, calculating punch, accounting machine, reproducing punch, and facsimile posting machine.

As new forms were developed and additional divisions and departments requested help in processing their data, the need of additional and larger machines became apparent. The department ordered a #1401 IBM Processing Unit. Another need which developed was that of punching the IBM cards. (To

meet this time-consuming problem, the department has under consideration the improved Data Reader developed by Science Research Associates. This device reads the source document by means of an electric eye and punches the IBM card in one operation.)

Illinois reported: "In our State plan frequent reference is made to the development of final forms, manuals, etc. These publications will be considered final only because of the time limit imposed by reason of the schedule submitted in the plan. Actually, no form or manual will be considered final. Evaluation and revision will continue regardless of whether we continue to take advantage of the provisions of title X in the future."

## IOWA

- I. Official Agency: State Board of Public Instruction
- II. Administered by: State Superintendent of Public Instruction  
Assistant State Superintendents  
Division of Administration and Finance  
Division of Research and Publications
- III. Effective Date: Jan. 5, 1959
- IV. General Policies and Purposes
  - A. Evaluate existing statistical services.
  - B. Improve collection, analysis, and reporting of statistical data.
  - C. Develop accounting and reporting manuals.
  - D. Hold inservice training conferences and workshops for personnel.
  - E. Review and evaluate program of records and reports.
  - F. Install mechanical data processing equipment.
- V. Proposed Program
 

*Improvement, Addition, Revision, and Expansion of the  
Statistical Services and Reporting Systems so as to  
Facilitate the Collection, Processing, Analysis,  
Dissemination, and Use of Such Data*

  - A. Analyze reporting forms and improve reporting systems.
    1. Collect and study all reporting forms being used.
    2. Develop an overview of a coordinated statistical reporting system.
    3. Identify individual items for duplication, obsolescence, and need.
    4. Determine information not now being gathered.
    5. Identify items needed by and the best means of collecting data for the various divisions of the department.
    6. Determine procedures to provide essential data to all divisions.
    7. Prepare reporting manuals for local and intermediate unit officials.
    8. Using advisory committees, made up of local school personnel working with department staff members and consultants, evaluate entire system of reports as to form,

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- content, use by the State department, and ease and facility of reporting by school districts.
9. Revise forms and data collected as a result of the evaluation carried out.
- B. Revise the uniform financial accounting system.
1. Review present accounting system and collect materials pertaining to accounting systems.
  2. Identify major areas and items to be revised.
  3. Bring up to date with changes in the statutes.
  4. Conform as far as practicable with Handbook II, *Financial Accounting for Local and State School Systems*.
  5. Make revisions necessary to accommodate machine accounting.
  6. Use an advisory committee and consultants to work with staff members to carry out the revision.
  7. After system has been revised, hold conferences and inservice training programs for local and intermediate personnel to expedite and clarify the use of the system.
- C. Establish a system of school property accounting.
1. Assemble pertinent data and bulletins on school property accounting system now in use in the respective States.
  2. Determine the major areas and classification of items with special reference to the needs, statutory requirements within the State, and definitions and procedures used in Handbook III, *Property Accounting for Local and State School Systems*.
  3. Make provision to accommodate machine accounting.
  4. Use an advisory committee and consultants to work with staff members of the department to develop property accounting system.
  5. After system has been developed and a manual printed, hold conferences and conduct inservice training programs for local and intermediate personnel.
- D. Establish a system of pupil accounting.
1. Assemble literature and bulletins with special reference to systems now in use in other States.
  2. Explore research in the area of pupil accounting.
  3. Determine data required and major areas, keeping in mind definitions of terms used in Handbook I, *The Common Core of State Educational Information*.
  4. Use an advisory committee and consultants in establishing system.
  5. Prepare drafts of accounting manuals and forms to use in "pilot schools."
  6. Evaluate and revise accounting systems and report forms used with "pilot schools."
  7. Hold conferences and inservice training programs with local and intermediate personnel.
- E. Establish a system of educational program accounting.
1. Collect and review literature in the field.
  2. Ascertain procedures and forms being followed in other State departments of education.

3. Use an advisory committee and consultants to help establish system.
  4. Review and analyze materials now being filed by the schools of the State in accordance with State board regulations.
  5. Determine a tentative code of standards, definition, and terms to be used in measurements of schools.
  6. Determine major areas, factors to be used in measuring quality of program, and techniques to be used in correlation of statistical data.
  7. After preparing tentative reporting forms, test use of system in 25 to 50 schools of the state.
  8. Evaluate and revise, after carrying out pilot use of the system.
  9. Using supplemental manuals, hold conferences and inservice training program with local and intermediate personnel to expedite and clarify the use of the system.
- F. Expand IBM and electronic processing of statistical data.
1. Place all pertinent school data on cards or electronic devices for processing by mechanical or electronic equipment.
  2. Develop statistical reports in printed form from such data and through the use of such equipment to provide "more quickly, accurate, detailed facts of statistical reports when needed.
  3. Prepare and print supplemental manuals to expedite and clarify use of IBM equipment.
  4. Conduct conferences and inservice training programs for local and intermediate personnel on the use of forms for IBM equipment.
- G. Process statistical data and prepare, evaluate, and interpret statistical reports.
1. To improve the techniques, procedures, and format, establish a planned program of statistical reports covering all phases of education under the supervision and control of the department, as well as other pertinent data collected by other agencies.
    - a. Revise forms for Educational Directory Report.
    - b. Determine needed reports and source of data.
    - c. Define procedure to follow in preparing reports.
    - d. Identify evaluation techniques and procedures.
    - e. Determine extent and degree of interpretation on list of statistical reports to be established.
    - f. Process segments of data not being processed by IBM equipment.
    - g. Make any collection of data required in the preparation of any special reports needed.
    - h. Prepare, print, or reproduce by some other means, statistical forms in such form and quantity as deemed necessary.

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- H. Provide professional services for the improvement of reports and reporting systems at the local, intermediate, and state levels.
1. Determine areas of service.
  2. Hold conferences and proceed with inservice training program for local and intermediate personnel.
  3. Prepare inservice training materials.
  4. Prepare supplemental manuals to use to develop a coordinated reporting system—local, intermediate, and State.
  5. Evaluate and revise the entire inservice training program.
- I. Provide equipment to facilitate reporting, processing, preparing, and disseminating reports.
1. Purchase an automatic typewriter for the preparation of statistical reports.
  2. Provide equipment to speed the flow of forms out of the office, such as addressograph and machine for making addressograph plates; rent IBM or other equipment for addressing mail.
  3. Provide equipment other than IBM for the processing of data and reports.
  4. Provide equipment for the preparation of reports.
  5. Provide equipment to facilitate the distribution of reports.

### VI. Implementation of Program

A. FY 1959: Federal funds	\$ 5,149.04
State funds	5,149.04
Total	\$10,298.08

Before title X, Iowa was using some IBM machinery in processing statistical data on pupils, staffs, finance, school buildings, transportation, teacher certification, district organization, and vocational rehabilitation. Analysis of data was made only when a specific need was presented. Although some statistical services operated throughout all the divisions, most were centered in the Divisions of Administration and Finance and Research and Publications. Information was disseminated through the biennial report and mimeographed reports relating to specific subjects. Handbooks I and II were used on a reference basis.

Just six months after Iowa's plan under title X became effective, the State education agency had purchased and rented new data processing equipment, was interviewing possible candidates for positions, laying preliminary plans on how data processing could be accelerated, and doing exploratory work in improving the whole organization of statistical services. Engaging additional qualified statistical personnel was the biggest problem encountered.

Of the \$10,298.08 spent in FY 1959, the greatest percentage (\$1.94) went for expanding data processing equipment. The department rented a 101 statistical machine and purchased control panels for its use. It replaced the 75 sorter with an 82 sorter, thus reducing the monthly rent. Iowa spent \$2,369.88 or

23.01 percent on printing and reproduction, and 21.89 percent of its funds on personal services.

B. FY 1960: Federal funds .....	\$47,508.08
State funds .....	47,508.09
Total .....	\$95,006.17

The analysis of reporting forms, an important step in the evaluation project, was completed by use of data processing equipment during this fiscal year. Each item of information requested was punched on a separate card and coded as to time requested, use, need, and degree of conformity with Handbook I. A complete analysis report was printed from these cards, using the accounting machine to print directly on duplicating stencils. This information is being used by the evaluation committee in revising the reporting system.

Further expansion and refinement were made in procedures and equipment for automatic data processing. The 403 accounting machine was replaced by a 407, the 552 interpreter was replaced by a 557, and the 514 reproducing punch was replaced by a 519 document originating machine. A number of source documents have been revised for mark-sensing in order to eliminate key punching.

Four separate statewide committees are working on the development of manuals in the respective areas of financial accounting, pupil accounting, property accounting, and educational program accounting. Emphasis is being placed on the implementation of the standard terminology, definitions, and measures of the cooperatively developed national handbooks.

Twenty-four major publications were produced for the purpose of achieving timely dissemination of information about education in Iowa.

## KANSAS

- I. Official Agency: State Department of Public Instruction
- II. Administered by: State Superintendent of Public Instruction  
Director, Division of School Administration
- III. Effective Date: Jan. 2, 1959
- IV. General Policies and Purposes
  - A. Establish the common core (Handbook I) in order that local districts can make reports in common terminology.
  - B. Develop and provide an improved system of financial accounting in conformity with Handbook II.
  - C. Improve the validity and reliability of reported data from local school districts.
  - D. Eliminate unnecessary overlapping and duplication of requests for educational data.
  - E. Centralize the collection, tabulation, analysis, and dissemination of educational information.

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- F. Speed up tabulations and reporting through use of automatic data processing machinery.

### V. Proposed Program

#### *Improvement of Statistical Services of the Kansas State Department of Public Instruction*

- A. Educational records and reports.
1. Evaluate all forms and reports now in use. Hold conferences and workshops, with representation from other State agencies, professional education groups, and lay organizations interested in educational statistics.
  2. Acquire two or more professional personnel with adequate training and background in statistics and accounting.
  3. Promote use of standard terms, definitions, and measures through implementation of Handbooks I and II. Develop manuals and guides for use in inservice training programs for local school officials.
  4. Improve data collection forms and procedures where indicated; eliminate unnecessary duplication and items no longer needed.
- B. Machine operations.
1. Employ a supervisor of automatic data processing, plus two additional persons to operate key punch, verifiers, sorters, collator, and accounting and printing machines.
  2. Rent appropriate data processing machines.
  3. Assign numbers to 140,000 holders of teachers' certificates.
  4. Punch cards for 24,000 currently employed teachers, showing employment qualification and training in order to establish the eligibility of each teacher to teach in fields and subjects to which assigned.
  5. Use mechanical equipment to expedite all studies by the professional staff of the Statistical Services Section, including tabulations done before Sept. 3, 1958, as well as additions to and expansion of such tabulations, plus new studies resulting from the revision of forms and reports.

### VI. Implementation of Program

A. FY 1959: Federal funds .....	\$2,351.80
State funds .....	2,351.80
Total .....	\$4,703.60

The organizational structure of the department was improved by establishing a Statistical Services Section in the Division of School Administrative Services. A director was employed (to start work July 1, 1959) for this new section and will be responsible for the coordination of all statistical services within the department of public instruction.

An evaluation committee made up of one staff member from each section in the entire department met once a week throughout the year. The work of this committee has resulted in the elimination of obsolete forms and unnecessary duplication.



Several sections of the department did preliminary planning for transition to machine data processing.

B. FY 1960: Federal funds .....	\$10,032.97
State funds .....	10,032.97
Total .....	\$20,065.94

The following new personnel were added during the year: director of statistical services, statistician, accountant, and data processing equipment operator.

The following new equipment was added during the year: one sorter and one 402 accounting machine.

A room was wired and fitted for automatic data processing equipment.

The financial accounting system for public schools was revised in conformity with Handbook II. A new State manual was developed and introduced by a series of workshops throughout the State.

The annual report form of local districts was revised to incorporate the receipt and expenditure accounts of the new financial accounting system.

Plans were made for the preparation and printing of the personnel directory, the financial directory, and the State Department annual report by automatic data processing equipment.

## KENTUCKY

I. Official Agency: State Department of Education

II. Administered by: Director, Division of Records and Reports

III. Effective Date: Feb. 19, 1959

IV. General Policies and Purposes

- A. Improve the collection, processing, analysis, and reporting of data supplied by local educational units.
- B. Conduct conferences and training for personnel of local educational districts and for periodic reviews and evaluation of programs for records and reports.
- C. Improve methods for obtaining from other State agencies within the State, educational data not collected by the State education agency.
- D. Expedite the processing and reporting of statistical data through installation and operation of mechanical equipment.
- E. Improve dissemination of educational information.

V. Proposed Program

*Improvement of Statistical Services in the Kentucky  
Department of Education*

- A. Evaluate existing statistical services.
  1. Add staff.

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2. Add necessary office equipment, such as mechanical calculators, typewriters, and similar equipment.
  3. Study other States' statistical services.
  4. Form committees and hold conferences with local school officials.
  5. Secure consultants to work with committees and departmental staff.
  6. Write reports at the conclusion of the review of forms and procedures.
  7. Begin study of property accounting.
- B. Develop procedures, forms, and manuals as indicated by the evaluation.
1. Evaluate procedures and forms used to collect educational data.
  2. Revise and prepare new forms as shown to be needed from this evaluation.
  3. Initiate procedures through conferences and field visits with local school district personnel.
  4. Develop a manual of standard terms and procedures in general accord with Handbook I, *The Common Core of State Educational Information*.
  5. Design forms and procedures for property accounting.
  6. Develop manual on property accounting.
- C. Develop procedures to expedite the processing and analysis of data and to improve the dissemination of educational data.
1. Form study committees to evaluate present dissemination techniques and reports.
  2. Write report and outline areas of data to be reported and frequency of reporting.
  3. Investigate use of sampling techniques to expedite reporting.
  4. Purchase and/or contract for the service of data processing machinery.
  5. Plan and publish reports deemed desirable from evaluation.

### VI. Implementation of Program

A. FY 1959: Federal funds	\$ 601.97
State funds	601.98
Total	\$1,203.95

Before title X, each division in the State department of education collected data for its own program; this sometimes resulted in duplication and overlapping in requests of local superintendents for information as well as differing interpretation of similar data. Data on enrollment and attendance of pupils and some information concerning the staff were collected by the Division of Records and Reports. The Division of Finance collected all data concerning school finance. Such data were in general conformity with Handbook II. No data processing equipment was in operation. The State Superintendent's biennial report was the major means of dissemination.

Although only 4 months were left in FY 1959 after Kentucky's plan was approved, some activity was initiated. A limited departmental budget made it difficult to obtain State matching funds necessary to establish positions and purchase needed equipment. However, one statistical clerk was employed full-time and one junior clerk, part-time. They were engaged in normal statistical procedures of the office, thus releasing other personnel to initiate activities outlined in the State plan.

The Division of Records and Reports conferred with all heads of divisions concerning evaluation of each division's statistical reporting procedures and made plans for total evaluation. Conferences were held with directors of pupil personnel from local school districts to evaluate pupil accounting procedures. *The School Organization Report* was evaluated and a tentative revised form made ready for experimentation. Plans were nearly completed for the formation of study committees to proceed with evaluation of all statistical reporting procedures of the State agency.

B. FY 1960: Federal funds .....	\$4,899.70
State funds .....	4,899.78
Total .....	\$9,799.48

Evaluation activities initiated in fiscal year 1959 were continued throughout fiscal year 1960.

The organization plan for statistical services was given thorough study and a plan amendment will be filed early in fiscal year 1961. It was decided that the best interests of the department could be served by a division of responsibility providing for a director of statistical services and a director of records and reports.

As a part of the evaluation program, the determination of optimum statistical services was studied. It was decided that if a functional statistical services center is to be established and maintained, it will be necessary to install automatic data processing systems and equipment. Basic planning was completed and early installation is anticipated.

## MAINE

- I. Official Agency: State Board of Education
- II. Administered by: State Commissioner of Education
- III. Effective Date: Apr. 17, 1959
- IV. General Policies and Purposes

Improve the overall statistical services program of the State education agency through:

- A. Evaluation of the present program.
- B. Improvement of the quality of educational data, through speeding up and improving the quality of the collection, processing, and dissemination of such data.

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### V. Proposed Program

#### *Improvement of the Statistical Services of the State Education Agency*

- A. Evaluate present statistical program.
  1. Survey all forms and questionnaires presently required by the various divisions in an effort to standardize requests, prevent duplications, etc.
  2. Survey all forms and questionnaires to see whether the requested information is useful or necessary and to determine what new information should be obtained.
  3. Redesign, where necessary, all forms to make them easy to code and punch.
  4. Develop standard manuals of procedure for distribution to superintendents.
- B. Conduct a complete census of school-age children.
  1. Expand data collected by use of machine accounting.
  2. Develop a continuous census of school-age children.
- C. Improve recording and use of annual pupil statistics.
  1. Use mechanical tabulation to speed up the collection, processing, and dissemination of data on pupils.
  2. Expand program to include new items of information, such as pupils by age distribution, pupil classification by residents and nonresidents, number taking advanced mathematics, other sciences, and languages, number of dropouts, etc.
- D. Improve financial accounting program.
  1. Implement the use by local school units of the standard classifications found in the national handbooks.
  2. Convert from manual to machine processing of data.
- E. Improve teacher statistics program.
  1. Expand analysis and interpretation of teacher statistics.
  2. Tabulate data collected by machines.
- F. Implement the national handbooks.

Conduct workshops for superintendents, principals, secretaries, etc., on the further implementation and uses of the cooperatively developed national handbooks.
- G. Develop special statistics needed.

Determine what special statistics should be incorporated in the regular statistical program (e.g., statistics concerning school plants, school administrative districts, higher education, and nonpublic schools.)

### VI. Implementation of Program

A. FY 1959: Federal funds .....	\$ 535.81
State funds .....	535.81
Total .....	<u>\$1,071.62</u>

In the same month the plan for improving statistical services was approved, Maine held a 2-day training workshop for 70 secretaries of superintendents of schools and of high school principals. The workshop, designed to improve accuracy of recording school data by following standardizations set up in the national handbooks, was held at Farmington State Teachers

College. It was organized by the State education department's director of administrative services and was conducted cooperatively by the department, the Maine School Secretaries Association, and the Farmington State Teachers College. Staff members from the department and a guest consultant from the U.S. Office of Education led panel discussions on data-collecting forms and on further implementing Handbooks I and II. A 7-page instruction booklet with a portfolio of forms was distributed to all participants.

Handbook I, *The Common Core of Educational Information*, had been distributed statewide in 1953, and in 1958 local record forms were revised to fit Handbook II, *Financial Accounting for Local and State School Systems*.

Before FY 1959 was over, procedures were started for adding statistical personnel, and job specifications for a clerk-typist and an accountant were written up for presentation to the State Board of Education.

B. FY 1960: Federal funds	\$ 6,577.70
State funds	6,577.71
Total	\$13,155.41

The State Department of Education had received authorization to add a statistician III to head a statistical services unit, effective July 18, 1959. The department had already hired an accountant I, a statistician I, and a key punch operator II.

The department further implemented Handbook II. School expenditures for 1958-59 were tabulated by elementary, secondary, and total amounts, following this national financial accounting handbook. The new accountant I audited school financial reports and correlated them with the annual town reports to verify data.

Machine processing of teacher statistics was begun, a punch card was prepared for each of 8,500 teachers and the cards were grouped by major field, i.e., mathematics, science, music, English, etc.

The department made plans to set up a school pupil census bank at the State level and to have a school building survey made on Porta-punch cards.

The statistician I audited and tabulated school statistical data on teachers, attendance, pupils, and buildings. The *Annual Statistical Report* containing data for 1956-58 was speeded up by 4 months, copies being mailed to local superintendents in September 1959 instead of in January 1960, as a help to them in preparing their school budgets.

The department of education started to implement the cooperatively developed Handbook III, *Property Accounting for Local and State School Systems*, 400 copies being sent to school superintendents for their review. Early in October 1959 the State

† Samuelson, Everett V., George G. Tankard, Jr., and Hoyt W. Pope. *Financial Accounting for School Activities* (Bulletin 1959, No. 21. State Educational Records and Reports). U.S. Department of Health, Education, and Welfare, Office of Education. Washington: U.S. Government Printing Office, 1959, 109 p.

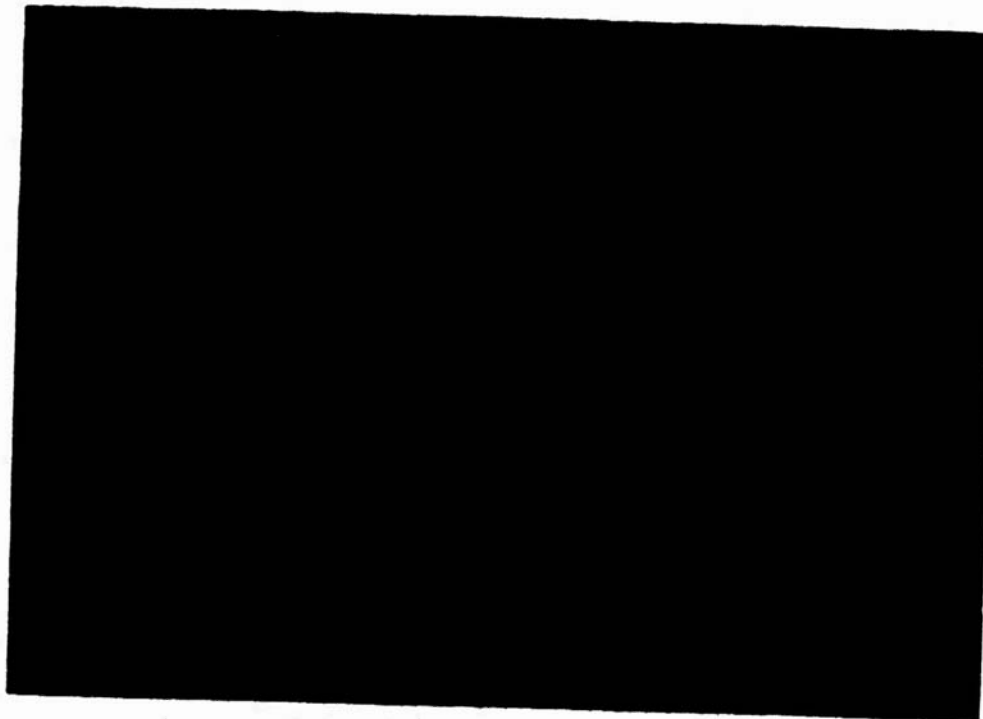
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department ordered the supplement to the financial accounting handbook, *Financial Accounting for School Activities*,<sup>2</sup> distributing 1,150 copies to elementary and high school principals. This allowed time for studying the handbooks before the spring state-wide meeting of school personnel.

Fifteen hundred copies of a new State procedure manual for local school boards, *Handbook for Local School Officials in Maine*, were distributed.

A second workshop for school secretaries was held to further acquaint these personnel with forms and reports required by the State department of education. At that time a special committee was appointed to prepare a handbook or guide for secretaries to use.

In FY 1960, a fact sheet on higher education offerings in Maine was published and 2,600 copies were distributed to high school graduates and their parents. Information as to programs offered, costs, scholarships available at the various institutions, etc., is contained in the pamphlet.



*Maine State Department of Education*

A statistician and a machine operator work at a sorter, which groups cards in a numerical or alphabetical sequence according to any classification punched in them.

## MARYLAND

- I. Official Agency: Maryland State Board of Education
- II. Administered by: The Staff of the Division of Administration, Finance, and Research Under the State Superintendent of Schools

**III. Effective Date: Jan. 26, 1959****IV. General Policies and Purposes**

Develop and carry out a plan to record, collect, process, analyze, and disseminate with maximum efficiency, accuracy, and adequacy, educational data that will present a valid and meaningful picture of the conditions and progress of education in Maryland. More specifically:

- A. Reassess the purposes to be served by the collecting, processing, and interpreting of data related to the needs of a modern educational program and to make such changes in the kinds, frequency, extent, and statistical treatment of data collected as will more adequately meet needs at local, State, and national levels.
- B. Develop more adequate, effective, and efficient ways of collecting, recording, analyzing, and reporting statistical data supplied by local educational agencies and by other agencies and institutions.
- C. Conduct inservice training programs and develop manuals to serve as guides for local educational agencies in order to improve the quality and usefulness of educational data.
- D. Expedite the processing, analyzing, and disseminating of educational data through such means as improved programming and use of mechanical equipment.
- E. Review and evaluate periodically the State statistical services to determine ways in which further improvement can be made.

**V. Proposed Program**

*Improvement of Statistical Services of the Maryland  
State Department of Education*

- A. Survey kinds of information needed and determine data that should be collected.
- B. Analyze present data collection forms, including a continuing, comprehensive, and systematic review of content, format, and scheduling of reports.
- C. Improve the scope, methods, and procedures of collection, processing, and analysis of educational and related data in order to improve the adequacy and usefulness of the data.
  1. Conduct study to determine areas in which mechanical equipment can be used to further advantage.
  2. Improve present reporting forms through study and redesign and develop additional forms to collect data not otherwise provided for.
  3. Conduct continuous study to eliminate duplication in reporting.
  4. Expand the collection of data to obtain more uniform reporting from all local educational agencies.
- D. Provide for improved record keeping.
  1. Expand the use of microfilming.
  2. Set up an index and crossfile system for statistical data and reference materials.
  3. Make other improvements recommended as a result of the evaluation.



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- E. Develop manuals and guides, such as:
1. Financial accounting manual.
    - a. Organize a statewide committee to examine present annual financial report form and its accompanying instructions to conform to Handbooks I and II.
  2. Budget manual.
    - a. Organize a statewide committee to study the budgetary procedures of the local educational agencies.
    - b. Determine the kinds of information that would be useful in developing comparable budget data.
  3. Personnel accounting manual.
    - a. Study personnel accounting needs.
    - b. Examine good practices found in this field.
    - c. Relate to U.S. Office of Education handbook now being developed.
    - d. Organize a statewide committee to evaluate Maryland's needs in this area.
  4. Property accounting manual.
    - a. Study the property accounting handbook issued by the U.S. Office of Education.
    - b. Organize a statewide committee to evaluate the need for a State manual on school property accounting.
  5. Pupil accounting manual.
    - a. Study existing pupil accounting instructions and forms.
    - b. Organize a statewide committee to review the pupil accounting needs in light of *The Common Core of State Educational Information* and Maryland's specific needs.
- F. Provide inservice training programs for State and local personnel.
- G. Expedite the processing of statistical data, making a study of the time lapses between collection and dissemination of data, scheduling in terms of work loads of local and State staffs, and the needs for current data.
- H. Expand the preparation and dissemination of reports.
1. Publish data more frequently, effectively, and currently, such as budget and expenditure data.
  2. Issue special reports to the local educational agencies as analyses are made of their specific data.
  3. Use other media of dissemination, such as press, radio, television releases, and face-to-face presentation.

### VI. Implementation of Program

A. FY 1959: Federal funds .....	\$1,745.89
State funds .....	1,745.89
	<hr/>
Total .....	\$3,491.78

As the first step in determining an optimum program, Maryland immediately started evaluating present statistical services.

The State already was collecting data on pupils, transportation, staff personnel, school buildings, handicapped children, high schools—students, subjects, staff, and followup of graduates, nonpublic schools, junior and teacher college enrollments, vocational and adult education, vocational rehabilitation services, etc. Though quite comprehensive, some of this raw data collected was never completely processed and analyzed. Just as soon as the State's plan was approved for improving present statistical services, the department appointed evaluation committees made up of both local and State school personnel and acquired the services of a well-qualified consultant. These committees discussed every data-gathering form with the persons for whom specific data are collected. With the help of the consultant, members compiled a checklist for analyzing all forms currently in use and planned to evaluate the output as well as the input of these forms. They studied the forms in light of need, or data that should be collected, and will endeavor to fit these into a pattern.

A committee compared the data and coding suggested by Handbook II with the data and coding used since 1953 when the financial accounting forms were revised, partially implementing Handbook I. Further study will be given to the changes which will be required to conform to the recommendations of Handbook II.

Some teacher personnel and some special educational data were already being processed by IBM machinery before the passing of title X. Data on staff characteristics were collected in FY 1959—data that had not been previously collected. More detailed data on the 1958 senior class in all Maryland high schools were gathered. A committee will determine the extent to which this additional data will be collected in the future, as well as the frequency. These more detailed data were sent promptly to each local unit by using mimeographed forms and filling in the specific local data, using carbons.

The report form on school organization and subject enrollment was simplified and will be revised to make it more adaptable to IBM processing. Work on the annual report was speeded up so that it was published sooner than it had been before title X.

An additional statistician was requested to add to the statistical services staff. State personnel met with representatives from 8 local units of the 24 local school units, as a basis for planning the statewide meetings. The first three meetings were held in the offices of the local school systems. At this beginning stage, the conferences were concerned with determining the kinds of information the local units feel they need and with the report procedures they use in obtaining the data to submit for the State report forms.

B. FY 1960: Federal funds	_____	\$ 7,042.57
State funds	_____	7,042.57
		<hr/>
Total	_____	\$14,085.14

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The evaluation phase of the program of statewide improvement of statistical services was completed and a 53-page report published by the end of fiscal 1960. As part of the on-going evaluation, specific report forms were modified and modernized. An outside consultant and State department and local school representatives who did the evaluation also continued to give consideration to the optimum development of statistical services.

The data processing of various State agencies, including the Maryland State Department of Education, was being centralized at the State Office Building. State education personnel and the State data processing personnel continued to work together to improve statistical services.

An overhead projector was purchased. Charts and graphs were used not only in original form but were designed in a format that could be photographed as 35-mm. slides to explain statistical data to large groups.

The cooperatively developed national handbooks were used as a basis for form revisions. Work progressed on the financial accounting manual. Some work was done on preparing material for a manual on teacher certification to be used in connection with a personnel manual. It is planned to gather more specific data on the elementary school class size and staffing assignments by means of mark-sense IBM cards.

More use was made of sampling to speed up data collection for specific purposes and to cut down the reporting load at the local level. Data not previously gathered were obtained on a sampling basis as part of a dropout study, and a special study of followup of graduates was started. Random sampling was used in a vocational interest survey made by the vocational division.

Members of the State department staff participated in conferences at the IBM schools at Endicott, N.Y., and Baltimore. Conferences have also been held with local personnel for an interchange of information and suggestions on improving the statistical program at both the State and local levels.

Requests for additional personnel—an assistant supervisor of special studies, a statistician, and secretaries—were submitted to the State government.

### MASSACHUSETTS

- I. Official Agency:** State Board of Education
- II. Administered by:** Commissioner of Education
- III. Effective Date:** Mar. 5, 1959
- IV. General Policies and Purposes**

*To provide for:*

- A. The improvement of the collection, analysis, and reporting of statistical data supplied by local educational units.
- B. The development of accounting and reporting manuals to serve as guides for local educational units.

- C. Conducting conferences and training for personnel of local educational units.
- D. Periodic review and evaluation of the program of records and reports.
- E. Improved methods of obtaining, from other State agencies, educational data not collected by the department.
- F. The expediting of reporting and processing of statistical data through installation and operation of mechanical equipment.

The board of education intends that improvements in the statistical services of the department such as those mentioned above will be used as (1) the basis for a reevaluation of the present statistical programs; (2) the basis for expansion of statistical programs designed to strengthen the educational program in the State; and (3) the basis for providing complete and comparable data for the use of the U.S. Office of Education, the several State departments of education, universities and colleges, educational organizations, and interested lay people.

#### V. Proposed Program

##### *Improvement of Statistical Services in Department of Education, Commonwealth of Massachusetts*

- A. A schedule of inservice training programs for statistical services personnel both in the State department of education and at the local level will be undertaken. In addition, there will be established one or more advisory councils consisting of persons thoroughly familiar both with mechanical data processing and with implementation of recommended Federal handbook procedures.
- B. In connection with "A" the State plans to prepare and publish guides, manuals, and a series of directions bulletins in followup procedures to expedite the acceptance and use of the *Common Core of State Educational Information, Financial Accounting for Local and State School Systems*, and the *Handbook on Property* (1958).
- C. This program provides for the purchase of machine and other electronic data equipment for installation in the central offices of the State education agency for the purpose of expediting the collection, analysis, and dissemination of educational information.
- D. Improvement of forms, procedures, and techniques for the collection, analysis, and dissemination of educational information will be undertaken as described and outlined in "C" above. In addition, school administrators and business officials and key secretarial personnel will serve on committees in several areas of the State. It is planned that reimbursement for travel and actual expenses for such committee members will be approved. The addition of professional staff members and clerical personnel in the Division of Research and Statistics is most necessary and is requested, as well as field representatives of the State department of education, whose responsibilities will include assistance to the local educational agencies in maintaining and improving such reports, forms, etc., as will be required by the State education agency. Services of all other divisions in the department of

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education will be surveyed and studied for the purpose of improving statistical reports and related educational information covering all phases of the work of the department.

### VI. Implementation of Program

A. FY 1959: Federal funds .....	\$11,995.24
State funds .....	11,996.24
Total .....	\$23,991.48

An evaluation of present statistical services was initiated by the director of research and statistics in conjunction with the commissioner of education and the division heads. The primary purpose is to eliminate duplication of effort and to review existing forms for opportunities to convert them to automatic data processing. The possibilities of centralization of statistical services are also under consideration.

The following data processing equipment was placed on order: two key punches, one sorter, one accounting machine (IBM #407), and a reproducer.

A population-projection study was done, providing estimated enrollments through 1970, together with estimates of future teacher needs and school facilities needs.

Basic planning was done for the development and publication of a State manual emphasizing the importance of the adoption of standard terminology for use in statistical work.

B. FY 1960: Federal funds .....	\$29,449.07
State funds .....	29,449.07
Total .....	\$58,898.14

Evaluation of statistical services was continued throughout this fiscal year by the staff committee. Emphasis was placed on elimination of duplication, proper scheduling of releases, and departmental rather than divisional effort.

One statewide and six regional conferences were held with local secretaries during the year. The purpose was to improve the coordination of statistical services between the local school districts and the State department of education.

The *Annual School Returns* and the accompanying *Handbook of Directions* were extensively revised as a major step towards the adoption of standard terminology. Definitions, codes, and item terminology as suggested in Handbook I were adopted whenever possible. Included in the revised *Annual School Returns* were tables requesting information on numbers and types of noninstructional personnel, teacher certification status, transportation services, and school buses. This information was not previously collected.

Data processing equipment, as ordered last year, was installed and put into operation. Forms previously prepared for hand tabulation were revised for adaptation to machine processing. For the first time, directory information, preparation of *Annual School Returns*, and teacher certification were processed by machine.

Two statistical machine operators completed training on the key punch, verifier, and sorter. The principal machine operator completed training in machine operation and wiring. The supervisor of educational research completed courses in wiring, basic machine operation, and theory of data processing and attended the IBM Executive Training School at Endicott, N.Y.

Throughout the adaptation to automatic data processing, codes and systems have been reviewed with other State and local agencies in order to achieve uniform codification wherever possible.

## MICHIGAN

- I. Official Agency: Superintendent of Public Instruction
- II. Administered by: Superintendent of Public Instruction (or his authorized agent)
- III. Effective Date: Feb. 2, 1959
- IV. General Policies and Purposes
  - A. Improve and strengthen the adequacy and reliability of educational statistics provided by State and local reports and records.
  - B. Improve the methods and techniques for collecting, processing, and analyzing educational data.
  - C. Improve the dissemination of information about the condition and progress of education in the State.
- V. Proposed Program
  - Improvement of Statistical Services*
    - A. Establish and operate a central statistical services unit.
    - B. Improve the quality and quantity of educational information through:
      1. Implementing Handbook I.
      2. Advisory committees to analyze data presently collected to establish the need for information not now being recorded.
      3. Conferences and workshops for local school administrators.
    - C. Develop accounting and reporting manuals for local educational agencies.
      1. Assign a committee made up of local school administrators, certified public accountants, and State staff members to prepare a financial accounting manual consistent with Handbook II.
      2. Require local school districts to adopt the manual.
      3. Conduct conferences and workshops to train local school personnel in the use of the manual and in the establishment of an accounting system.
      4. Conduct periodic reviews and evaluations of the program for records and reports.
    - D. Improve the methods and scope of data collected from other State agencies so that the total body of information at all levels of government will be complete.

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1. Secure from other State agencies lists of educational data now being collected.
  2. Develop a program of systematic reporting.
- E. Install and operate a system of mechanical equipment for processing data so that greatly improved analyses can be made.
- F. Expand the program for dissemination of information about education.
- Revise and/or expand publications to include more information of a statistical nature.

### VI. Implementation of Program

- A. *FY 1959*: No program in operation.
- B. *FY 1960*: No program in operation.

(*Note*: The Michigan State plan was submitted in fiscal year 1959 and was subsequently approved by the U.S. Commissioner of Education; the Michigan State education agency has considered it to be tentative, however, and the plan has not been implemented.)

## MINNESOTA

- I. Official Agency: Minnesota State Board of Education
- II. Administered by: Assistant Commissioner in Charge of Division of Business and Legal Services  
Director of Research

III. Effective Date: May 8, 1959

### IV. General Policies and Purposes

- A. Evaluate present program of statistical services.
- B. Improve and expand the collection, analysis, and reporting of statistical data from local school units.
- C. Improve the speed with which educational statistics may be made available by using sampling techniques.

### V. Proposed Program

*The Expansion, Refinement, and Acceleration of the Statistical Service Function of the State Department of Education*

- A. Evaluate present program of statistical services.
1. Conduct a survey of the State education department to determine:
    - a. Kinds of data currently being collected by each of the divisions.
    - b. Duplication and overlapping of the various data collecting activities of the divisions.
    - c. Efficiency of the flow of data through the intra-departmental channels of communication.
    - d. Efficiency of the coding system of department files.
- B. Improve and expand the collection, analysis, and reporting of data.



1. Continually assess the department's needs for statistical information through use of a committee made up of representatives from the staff, the University of Minnesota faculty of education, and school administrators, in order to:
    - a. Carry out its leadership function, e.g., the improvement of instruction and the reorganization of school districts by fostering local actions.
    - b. Carry out its regulatory functions, e.g., certification of teachers, distribution of State financial aids, approval of school construction, etc.
    - c. Carry out its information function; e.g., exchange of information with other agencies of State government, other States, the U.S. Office of Education, etc.
  2. Using a similar committee, develop procedures and arrangements to obtain needed data from nonschool sources through a cooperatively developed plan:
    - a. With the U.S. Census Bureau to obtain census data classified by school districts.
    - b. With the Minnesota Department of Taxation to obtain individual income and corporation income tax data classified by school districts.
    - c. With the Motor Vehicle Division to obtain automobile and truck registrations classified by school districts.
    - d. With other agencies as needed.
  3. Through the use of a similar committee, review statistical treatments of educational information in all department publications, such as annual reports, educational directories, etc., and recommend changes and additions.
  4. Develop manuals for uniform instruction, personnel, property, and financial accounting consistent with Handbooks II and III.
  5. Schedule and conduct area workshops and conferences to acquaint local personnel with data collection forms, the interpretation and use of the revised or newly created manuals for uniform accounting, and the services and information available through the statistical services section of the department.
  6. Develop methods and procedures for the tabulation and analysis of data by use of electronic data processing equipment.
- C: Develop and use samples in projects and estimates.
1. Select a representative stratified sample of school systems, the districts to be classified simultaneously by a number of characteristics and a proportionate number of schools drawn at random from the various resulting categories.
  2. Calculate the confidence limits of the sample for projections and estimates, postulating some known para-

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meter for all districts and then comparing postulated totals with actual.

3. Develop procedures for rapid data collection from sample school systems.

### VI. Implementation of Program

A. FY 1959: Federal funds	\$3,217.64
State funds	8,217.55

Total	\$6,435.09
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When its plan was approved, Minnesota immediately established a committee representing all sections of the department to study the nature, extent, and purpose of data being collected. Each section cooperated in determining any duplication and overlapping of statistics collected, the flow through intradepartmental channels, and the methods of analyzing, tabulating, and recording, as well as the efficiency of the coding system. Although some informal evaluation had been done, no systematic evaluation had been done in the last 10 years.

An interdepartmental forms review committee was also set up to determine the efficiency of the report forms currently in use. This committee studied the pertinence of information collection, ambiguity of wording, and the method of interpreting, checking, and tabulating data.

Another committee of representatives from the department, the University of Minnesota College of Education, and local school administrators had started to assess department needs for statistical information to promote its leadership, regulatory, and informational functions.

The State Department of Education made arrangements for a qualified consultant to come in July 1960 to assist the Research Division in planning an optimum statistical services program. This division had already started revising the *Manual of Instructions for Uniform Financial Accounting for Minnesota School Districts*. (Such a manual had been developed in 1952, but did not conform entirely to Handbook II.)

B. FY 1960: Federal funds	\$20,273.18
State funds	20,273.18

Total	\$40,546.36
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Several publications were completed or in process, report forms were being analyzed, and samples of local school districts were being drawn for future surveys.

The first draft of the new financial accounting manual was completed, and 84 copies of the mimeographed report were distributed for evaluation to district superintendents, University of Minnesota professors of public school administration, and the U.S. Office of Education. Developing this manual were the title X staff and 9 committee members outside the department—3 school superintendents, 1 school district clerk, 3 school district business managers, and 2 auditors. The *Manual of Instructions for Uniform Accounting* should be available to local school districts at the beginning of the 1961-62 school year.

A 20-year progress report on the expansion and improvement of the services functions of the department was published as the *State of Minnesota Report of Department of Education, July 1, 1940 to June 30, 1960*. The 180-page report was cooperatively prepared by the division heads of the entire department of education.

A fairly complete analysis of the report forms in use by the numerous divisions was made. The analysis includes the listings of every data collecting item on each form, its function and usefulness to the department and the U.S. Office of Education, its timeliness or obsolescence, its suitability to fulfill legal requirements, and the amount of duplication among these information gathering items.

Major report forms in the Home Economics Section were revised with obsolete items eliminated. New forms for this section were simplified and designed to conform to new program requirements. New report forms were developed to collect basic information for classifying secondary schools, data from every school district in the State concerning enrollment, number of teachers employed, the number of classrooms available, number needed, and the number under construction. Being revised are the report forms used by the Division of Rehabilitation and Special Education.

The Research Division is developing a sample of Minnesota schools districts for analysis and projection.

The statistical services staff is also compiling the policies of the State Board of Education. Part I, *Policies Relating to Conduct of Business of the Board and Operation of the State Department of Education* has been completed. All division heads are participating in Part II, *Policies Relating to Minnesota Public Schools*, presently being written, since each division has to set forth its policies as they affect the public schools of the State.

## MISSISSIPPI

- I. Official Agency: Mississippi State Board of Education
- II. Administered by: Director, Division of Administration and Finance
- III. Effective Date: May 27, 1959 (amended Nov. 10, 1959)
- IV. General Policies and Purposes
  - A. Make an immediate evaluation of present services through an analysis of the types of educational data now collected and an appraisal of the present procedures of collection and tabulation and the use now being made of these data.
  - B. On the basis of the evaluation, take necessary action to eliminate duplications in data collected, supplement present data with more meaningful data, and improve the forms, procedures, and techniques for collecting, analyzing, and disseminating educational information.

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- C. Expedite the processing of statistical data through the installation and operation of mechanical equipment.
- D. Initiate training programs for State and local personnel who are responsible for working with statistical data.
- E. Provide continuous coordination and evaluation of all statistical services of the State department of education.
- F. Maintain policies which will be consistent with the above stated aims and purposes and which will conform to those established by the Mississippi State Board of Education and the U.S. Office of Education.

### V. Proposed Program

#### *Improving the Maintenance, Collection, Analysis, and Dissemination of Statistical Data on Education*

- A. Appoint an overall advisory committee to advise on the best approach to the program and evaluate progress and results. Appoint special, ad hoc, committees as needed.
- B. Inaugurate a program of inservice training for employees of the State department of education statistical service staff.
- C. Evaluate current statistical data forms and make necessary revisions. Develop and print new forms as needed.
- D. Initiate and implement Handbook I, *The Common Core of State Educational Information*; Handbook II, *Financial Accounting for State and Local School Systems*; and Handbook III, *Property Accounting for Local and State School Systems*.
- E. Initiate a series of conferences and workshops throughout the State to implement the entire program.
- F. As new reports and procedures are put into effect, develop manuals and guides, using new system of accounting and reporting data and changes in terminology.
- G. Acquire equipment to facilitate the accumulation of data and the preparation and distribution of reports.
- H. Organize and establish a central unit within the Division of Administration and Finance to carry on statistical services.
- I. Make a continuous evaluation of the new accounting system and new methods of collecting, processing, and disseminating educational data. (Out of this evaluation may come suggestions for amendments to the State plan.)
- J. Provide for the collection, processing, analysis, interpretation, and dissemination of statistical data not now being utilized.
- K. Inaugurate a program of inservice training through addition of field service personnel, who will work with people at the local level responsible for reporting education data to the State department of education.
- L. Provide for such remodeling and alterations to physical facilities as needed for an expanded statistical program.

### VI. Implementation of Program

A. FY 1959: No program in operation.	
B. FY 1960: Federal funds	\$10,506.42
State funds	10,506.43
<b>Total</b>	<b>\$21,012.85</b>

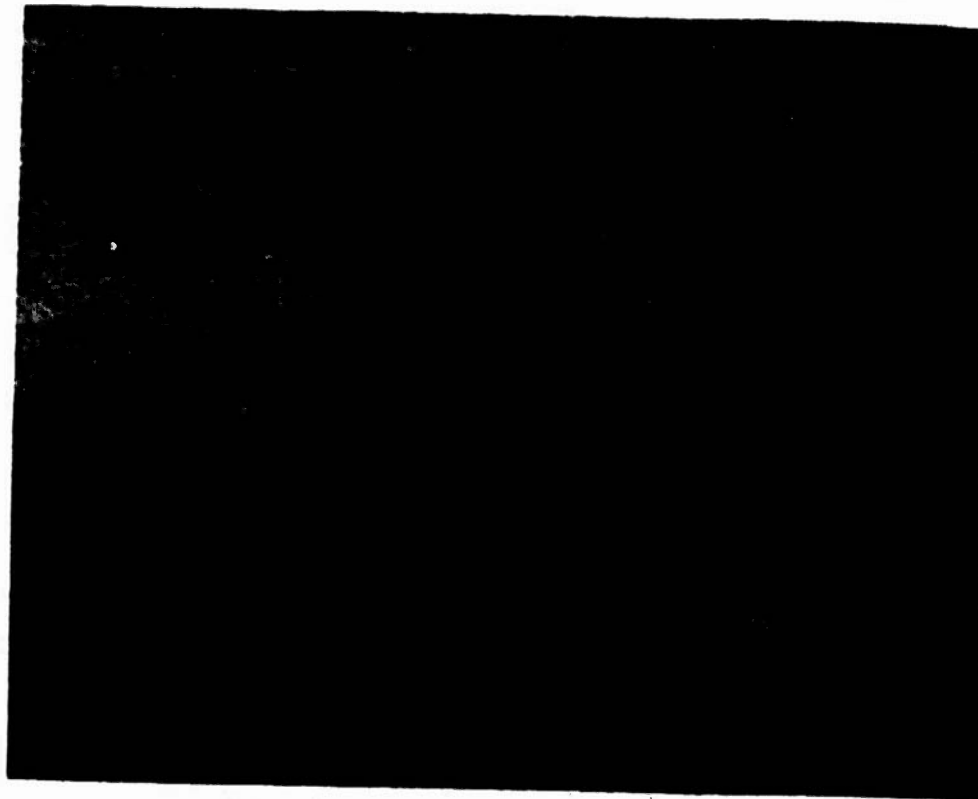
The first activity carried out under this program was planning for the installation of automatic data processing equipment. Two other State departments were visited and the staff of the Mississippi department assessed their respective needs. It was decided that the data processing unit would be located in the Division of Administration and Finance but would be a service unit for all divisions of the department. The equipment acquired included two key punches, one verifier, one sorter, one reproducing summary punch, and one 402 accounting machine. Two new people were employed for this unit, an experienced tabulating operator and one experienced key punch operator. An inservice training program was inaugurated for other employees of the department; seven employees were trained as key punch operators and two received training for the operation of the accounting machine.

The first report to be set up for automatic processing was the instructional personnel report of local school districts. This report contains a listing of all personnel who are required by statute to be certified for the position held, with the following information provided for each person: sex, race, number of certificate, class and type, total years of experience in this school, total years of experience, teaching position, and salary from each source. This report is used to obtain statistical reports on instructional personnel and to allocate State foundation aid to local districts.

A pilot study was inaugurated whereby the State department of education prepared the instructional personnel report from the previous year's report for 15 local school districts. The superintendent of the local district received this report, deleted teachers who had left the system, and added new teachers and made other necessary corrections. As a result of this pilot project, the State department will prepare this report for all local school districts as of the beginning of the 1960-61 school year.

Initial planning was completed for other automatic data processing applications. Among these are payroll accounting, school lunch accounting, annual finance reports from local districts, school lunch manager certification, and the comprehensive public school report which provides information relating to organization, average daily attendance, number of teachers per school, and opening and closing dates.

A departmental staff committee worked throughout the year on an evaluation study of present statistical services and a determination of an optimum program. A major objective of this committee has been the elimination of duplication in reporting and the improvement of coordination of all statistical services within the department.



*Mississippi State Department of Education*

The assistant director of finance and research discusses a statistical report with the operator of a keypunch machine, while another operator checks data on a verifier. The machines were part of the program of the department's introduction to automatic data processing equipment.

## MISSOURI

- I. Official Agency: State Board of Education
- II. Administered by: State Commissioner of Education
- III. Effective Date: June 5, 1959
- IV. General Policies and Purposes
  - A. Improve data at origin.
  - B. Speed up processing of data.
  - C. Make greater use of data.
  - D. Provide better organization of data.
  - E. Improve reporting of information to all agencies—local, State, and national.
- V. Proposed Program
  - Improvement of Statistical Services in the Missouri State Department of Education*
  - A. Evaluate existing statistical services.
    - 1. Collect all reporting forms and organize information for study.

2. Identify strengths and weaknesses in the statistical services program.
  3. Draft and later put in final form a description of the existing program, setting forth the points at which improvements can be made.
  4. Put into operation a plan for continued evaluation of the improving program.
- B. Establish centralization of data collection and organization.
1. Provide a common and uniform area to help provide for use of data.
  2. Improve organization of data for prompt availability and use.
    - a. Plan, through an intraoffice study committee, for an organization of flow of data.
    - b. Based on findings and recommendations, inaugurate those parts of the plan for centralized data gathering as can most successfully be implemented.
  3. Provide flow of data to central, library-type facility.
  4. Through the use of central organization, make available more widespread adaptation of data.
- C. Revise finance accounting handbooks.
1. Develop a manual of school accounting that is up to date and applicable to the accounting system now in use. (In 1957 the school finance accounting system was extensively changed to conform to Handbook II.)
  2. Present manual in the field through workshop conferences.
- D. Promulgate principles of Handbook III, *Property Accounting for Local and State School Systems*.
1. Study Handbook III.
  2. Familiarize local schools with Handbook III through conference-workshops to the end that its principles and policies will be adopted locally. (This will be in accordance with a recent State statute which calls for verification of assets and liabilities.)
- E. Improve collection analysis and use of data in selected areas of statistical services.
1. Set up pilot-trials in statistical procedures which, when proved, can be continued as a regular part of statistical services in the State department. (For example, a sampling survey to determine cost per pupil by size and/or organization of school districts may reveal validity of such technique.)
  2. Develop sampling techniques.
    - a. 1959-60: Samples will be drawn from old material which is based on complete coverage and treated as though predictions are to be made. These projection results will be compared with complete coverage results.



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- b. 1960-61: On basis of results obtained in 1959-60, samplings will be made and projections developed in a trial circumstance where complete coverage will be made. When complete coverage results are known, these will be compared with projections.
  3. Proved sampling procedures will be made part of the regular statistical services. Pilot-trial situations will be continued.
- F. Expand or improve electronic machine data processing.
1. Review and evaluate expansion needs.
  2. Add or replace machines, such as new model tabulator and a higher speed sorter, as well as appropriate files for organization of cards.
  3. Analyze peak load and organization problems.
  4. Continue evaluation of appropriate equipment needs.
- G. Prepare information basic to implementation of Handbook I, *The Common Core of State Educational Information*.
1. Develop an understanding of the principles set forth in Handbook I.
  2. Determine the extent of adjustment needed in the present system of statistics to bring about comparability with other States in terminology, definitions, and measures.
  3. Be prepared to assist local schools in adjusting records and reports to the principles of Handbook I.
- H. Develop a workshop-conference procedure.
1. Determine needs and develop slides, charts, scripts, and other materials designed specifically for implementing handbooks and practices.
  2. Acquire appropriate equipment and supplies.
  3. After workshops have been conducted, evaluate materials and procedures.
- I. Reactivate and update professional library relating to statistical services.
1. Prepare an inventory of existing professional library facilities.
  2. Discover and recognize the strengths and weaknesses in the present library services.
  3. Organize library so that materials can be readily available—provide for binding, cataloging and filing of all books, pamphlets, and other materials.

### VI. Implementation of Program

A. FY 1959: No program in operation.	
B. FY 1960: Federal funds	\$3,154.85
State funds	3,154.86
Total	\$6,308.71

All statistical forms were assembled and a start was made on tabulating each item of information in order to eliminate unnecessary duplications. Through personal conferences with other departmental personnel, revisions were made in some basic

source documents. These included report forms providing statistical data on teacher personnel and on the special education program.

A preliminary draft of a revised financial accounting handbook was developed. The procedures and terminology of Handbook II will be implemented to such an extent as is feasible under State law. Accounting and reporting forms were developed for property accounting in local school districts. These follow Handbook III and will result in additional summary information on school property at the State level.

A pilot-trial study was initiated on the current cost per pupil in school districts of varying sizes. Sampling techniques were used in the collection of data on the number of noncertificated personnel employed in school districts maintaining high schools.

Reporting forms were surveyed in regard to conformity with Handbook I. On one major source document, pupil data were re-arranged to provide more accurate and complete primary statistics and to facilitate key punching and verifying.

Numerous conferences were held with school officials, auditors, and school secretaries with emphasis on the improvement of records and reports.

## MONTANA

- I. Official Agency: State Board of Education
- II. Administered by: State Superintendent of Public Instruction
- III. Effective Date: Jan. 20, 1959 (amended Nov. 4, 1959)
- IV. General Policies and Purposes

- A. Develop and carry out a plan for collecting, processing, analyzing, interpreting, and reporting data and improve the accuracy and validity of such data.
- B. Make possible the presentation of a more complete and valid picture of conditions and progress of education in Montana, both financial and educational.

### V. Proposed Program

*Reorganization and General Improvement in Statistical Service, the System of Storage and Retrieval of Data and Other Information in the Office of the State Superintendent of Public Instruction*

- A. Initial planning and organization stage.
  - 1. Planning and developing field forms coordinated with punch card or punch tape entry.
  - 2. Evaluation of present program.
  - 3. Initial utilization of consulting services.
- B. Tentative time schedule for fiscal years 1959 and 1960.
  - 1. Survey of present operations.
  - 2. Development of new data flow lines.
  - 3. Preparation of forms, research on installation of equipment, and development of manuals.
  - 4. Tryout and field orientation institutes.

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- C. Development of manuals; institutes and workshops; field services.
1. Development of an operations manual for the department of public instruction.
  2. Development of an accounting manual and accompanying forms in conformity with Handbook II.
  3. Development of a supplement to the accounting manual embodying basic information concerning the overall Montana State school finance system.
  4. Development of a handbook for administrators, school boards, and clerks, together with accompanying forms.
  5. Preliminary development of manuals and accompanying forms for improved property and personnel accounting.
  6. Extension of field services to regional centers, counties, and individual school districts.
- D. Tentative planning for machine installation.  
E. Tentative planning for personnel additions.  
F. Provision for additional equipment and minor remodeling.

### VI. Implementation of Program

A. FY 1959: Federal funds .....	\$2,997.91
State funds .....	3,001.35
Total .....	\$5,999.26

A private consulting firm was retained to review and evaluate the department's financial and statistical services in respect to the statutory obligations of the superintendent of public instruction. This firm also assisted in the development of a handbook to clarify methods of reporting to the State office.

A thorough review of all report forms in use resulted in the development of two new budget report forms: one for elementary and one for secondary.

B. FY 1960: Federal funds .....	\$17,434.85
State funds .....	18,652.31
Total .....	\$36,087.16

Statistical services personnel were increased by full-time equivalence of 2½ positions, including a director of financial and statistical services.

The evaluation program was continued. This included a critical analysis of departmental needs for data, form design, and degree of standardization of terminology.

The *Handbook of Montana School Finance and Statistics* was completed and mailed to all local officials who are responsible for reporting financial and statistical data to the State office.

Pupil accounting procedures were in process of revision to provide the E<sup>1</sup> and E<sup>2</sup> categories on pupil enrollment. In order to increase the speed and accuracy of reporting, intermediate summarization at the county level was eliminated from the reporting procedures.

## NEBRASKA

- I. Official Agency:** Nebraska State Board of Education
- II. Administered by:** Commissioner of Education  
Assistant Commissioner, Division of Administration  
Director, Statistical Services
- III. Effective Date:** June 8, 1959 (amended Oct. 9, 1959)
- IV. General Policies and Purposes**

It is the purpose of this program of improvement of statistical services in the Nebraska State Department of Education to broaden the scope of data collection, to bring about better analysis and use of data relating to education, to speed the collection and processing of data, to organize these data and services to facilitate quick location of information, and to improve validity of collected data and derived facts concerning education in the State. Local, State, and national needs for statistical information should be better met through the improved statistical services.

**V. Proposed Program**

*Improvement of Statistical Services in the Nebraska  
State Department of Education*

- A. An evaluation of existing statistical services.**
1. All statistical materials including reporting forms, manuals, and information instruments coming in and going out of the department will be collected.
  2. Data which are collected will be classified and analyzed in terms of use and need.
  3. Flow of data, processes of verifying, organizing, analyzing, dissemination, and uses of data will be studied and reported, special attention being given to causes of slowness, questionable validity, and limited use of data.
  4. A report of findings and recommendations will be made to the Commissioner and will form the basis for planning for the improvement of statistical processes in the Nebraska State Department of Education.
- B. Revision and reprinting of existing reporting forms and modification of reporting system.**
1. Development of a State manual for use in connection with principles set forth in Handbook I.
  2. Establishment of a State committee to serve in advisory capacity in revising forms and developing the State manual.
  3. Printing of revised forms and State manual.
  4. Use of technical consultants in the development of forms and manual.
- C. Central coordination of statistical information services.**
1. Staff conferences designed to determine the availability of kinds of data, and the most desirable methods of channeling, using, and organizing these data will be planned and held.

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2. Procedures will be established to provide effective flows of data, uses of data, and organization of data.
  3. As far as possible all data will be catalogued and recorded in a central locator file. The data processing machinery and microfilming equipment now available and to be added will be adapted to some extent to facilitate this operation.
- D. Establishment of a system of school property accounting.
1. Preliminary work will be done through staff and State committees.
  2. First drafts of property accounting forms will be drawn.
  3. Regional meetings will be held in the State to explain new forms and to invite suggestions for improvements.
  4. A school property accounting manual will be developed, printed, and distributed.
  5. Final accounting forms will be established.
- E. Evaluation and expansion of the established system of machine processing of data.
1. Technical consultation will be used to advise in developing best format for data collection forms; to assist in plans for fuller use of the machines; and to aid in better timing, flow, and use of data given to the machines.
  2. Revised data forms will be developed and put into effect.
  3. Additional machine time will be allocated to statistical services through the addition of personnel and/or machines.
- F. Graphic and statistical representation of local school districts in Nebraska.
1. All school district boundary changes and related statistical revisions in the State will be collected by the department of education.
  2. Boundary changes and statistical revisions will be analyzed and changed and recorded on the maps.
  3. All county maps and related statistical information will be used with group meetings over the State when reorganization of school districts is being considered.
  4. It will help to broaden the outlook of various groups that are interested in reorganization to visualize the most desirable plan for the reorganization of school districts in their particular area.
- G. Micro-filming and/or machine taping of educational information, the storage, and the reverse process of enlargement and the duplication of educational data.
1. Technical consultation will be used to advise in developing this program and the type of equipment best suited to do this job.
  2. Procedures may be established to provide effective flow of data to all Federal, State, and local schools and agencies needing the educational information.
  3. As far as possible all data will be recorded, catalogued and filed.

## VI. Implementation of Program

A. FY 1959: Federal funds	\$491.41
State funds	491.42

Total ..... \$982.83

Activity was limited during fiscal 1959 since the State plan was approved on June 8, 1959.

Report forms and analysis sheets were assembled for use by a committee formed for the purpose of the evaluation. Staff conferences were held to discuss the nature of this evaluation and to determine more fully what projects were underway or anticipated which could be improved or expanded under title X.

Data on teacher preparation, teacher assignment, and the school program were prepared for key punching and ultimate machine processing and analysis.

B. FY 1960: Federal funds	\$ 8,089.47
State funds	8,089.48

Total ..... \$16,178.95

Reporting forms were collected and analyzed by types of data requested. An advisory committee of staff members was appointed and the term summary statistical report forms were studied. Another advisory committee consisting of four public school superintendents and four county superintendents was appointed, and the summary report was again studied item by item. As a result of this cooperative effort, a revised report and plan of gathering pertinent data from each school was developed. Snap-out type forms were printed and will be used for reporting at the end of this fiscal year. Report forms will go directly from each K-12 school district direct to the State department, without any intermediate summarization or accumulation at the county level.

During the fiscal year the following four new bulletins were published and distributed:

1. *1959-60 Pupil Enrollment, Number of Teachers and Pupil-Teacher Ratios*
2. *1960 Teacher Supply, Demand and Preparation in Nebraska*
3. *1959-60 Nonpublic School Facts*
4. *Per-Pupil Costs in Nebraska Public School for 1958-59*

Seven conferences were held throughout the State to acquaint school superintendents with the new reporting forms. Some preliminary work was accomplished in the matter of implementing Handbook III and several local school districts initiated the property accounting system.

Teacher preparation data for all high school and junior high school teachers were punched on IBM cards. These cards will be used to analyze teacher preparation as it relates to teacher assignment.

A graphic representation was prepared for each school district in each county. On each map the pertinent statistical and

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financial information was included by individual school districts. These maps will be revised as redistricting takes place.

### NEVADA

- I. Official Agency: State Board of Education
- II. Administered by: Superintendent of Public Instruction  
Second Assistant Superintendent of Public Instruction
- III. Effective Date: Jan. 16, 1959
- IV. General Policies and Purposes

To develop and carry out a plan for collecting, processing, analyzing, interpreting, and reporting data and to improve the accuracy and validity of such data and its processing as will permit the State education agency to present, within the proposed program, a more complete picture of conditions and progress of education in Nevada and to develop more efficient and more valid financial and education procedures.

#### V. Proposed Program

*Development, Expansion, and Improvement of the Statistical Service  
Functions of the State Department of Education*

- A. Improve the collection, analysis, and reporting of statistical data supplied by local school districts.
- B. Develop accounting and reporting manuals to serve as guides for local school districts.
- C. Conduct conferences and training programs for personnel of local school districts and periodically review and evaluate these programs.
- D. Expedite the processing and reporting of statistical and other educational data through installation and operation of mechanical and other equipment or through arrangements with other offices to do certain work under contract or fee basis.
- E. Expedite and render data more useful for processing, reference, and research purposes; develop methods and means of organizing and maintaining statistical and other records and reports.
- F. After initial studies of need, means, and methods have been made, evaluate periodically, as needed, the status of the statistical services program for the purpose of maintaining it at the desired level of usefulness and adjust it to changing conditions.

#### VI. Implementation of Program

- A. FY 1959: No program in operation.
- B. FY 1960: No program in operation.

### NEW HAMPSHIRE

- I. Official Agency: New Hampshire State Board of Education
- II. Administered by: Chief, Division of Administration



III. Effective Date: May 21, 1959 (amended Oct. 1, 1959 and May 10, 1960)

IV. General Policies and Purposes

*To improve and strengthen:*

- A. The adequacy, reliability, and usefulness of educational statistics provided by State and local reports and records.
- B. The methods and techniques for collecting, verifying, and processing educational data and for disseminating information about the condition and progress of education in New Hampshire.

V. Proposed Program

*Improvement and Expansion of the Statistical Services of the New Hampshire State Department of Education*

- A. Analyze the role and identify the appropriate functions of the State department of education in the field of statistical services.
  1. Establish an advisory committee composed of representatives from such groups as department of education staff, local school superintendents, principals, etc., to carry out this activity.
  2. Study the use of standard definitions and common terms as contained in the cooperatively developed handbooks of the Records and Reports Series, published by the U.S. Office of Education.
- B. Evaluate the present program of statistical services of the State department of education.

Assign professional and clerical staff time and use the assistance of the advisory committee described in "A" to:

  1. Identify and analyze statistical information presently being collected to determine duplications, inconsistencies, omissions, obsolescence, inadequacies, etc.
  2. Evaluate present methods and procedures of collecting, verifying, processing, interpreting, and disseminating data.
  3. Evaluate the present timing of collecting and disseminating data and the present time required for verifying, tabulating, processing, interpreting, and disseminating data.
  4. Identify the strengths and weaknesses of the present statistical services program.
- C. Develop and implement procedures for improving and expanding the statistical services of the State department of education.

Improve and expand procedures for collecting, verifying, processing, interpreting, and disseminating data:

  1. Employ additional personnel for statistical services.
  2. Identify those activities which must be added, deleted, or modified.
  3. Establish priorities for the improvement of the program of statistical services.
  4. Develop and implement plans for making the improvements determined to be most necessary.
  5. Use the services of the advisory committee as found to be appropriate in implementing this program.

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6. Use consultive services as found to be appropriate in implementing this program.
7. Develop increased use of office machines and machine tabulating procedures in the handling of statistical data.
8. Hold conferences with school people, officials of business or government, and members of local school boards to implement this program.

### VI. Implementation of Program

A. FY 1959: No program in operation.	
B. FY 1960: Federal funds	\$3,331.17
State funds	3,331.17
Total	\$6,662.34

Definite plans were made for improving statistical services in the New Hampshire State Department of Education. A director of statistical services and an account stenographer were added to the department staff. As the statistical services program expands, other personnel will be added. The new director is already working with professional staff members of all divisions in analyzing the methods presently used to collect, process, and disseminate data. A program has been set up for improving the reporting of local personnel and for inservice training of State department staff members. State personnel discussed the best techniques of disseminating educational information to groups at a workshop on September 21, 1960. The successful 2-day workshop for educational secretaries that the department has held for the past seven years will be continued.

An advisory committee to work along with the statistical services staff has been organized. It is composed of outstanding educators of the State representing local school people, officials of business and government, and State department staff. As recommended by the advisory committee, the department sponsored a conference on October 26, 1960, to aid the staff in developing an optimum statistical services program. The committee is now aiding the department in an evaluation of the present program.

The statistical services staff with the aid of a specialized advisory committee will develop a school financial accounting handbook for New Hampshire, using the national Handbook II as a basic guide. Adoption of standard terminology and coordination of department statistical services will be improved and expanded as the chief of the Division of Administration and the director of Statistical Services work with the advisory committee and with each professional staff member throughout the department.

The uses of high-speed data processing equipment were being examined to decide if purchase or rental of additional equipment would be justified for the department.

Even before title X, IBM machines were used to calculate the State aid for each school district, to print the notices and the calculation of the State aid amounts, to compute the number of pupils resident in each school district, and to provide a number of studies on finance, pupils, and staff.

## NEW JERSEY

- I. Official Agency: New Jersey State Department of Education
- II. Administered by: Director, Bureau of Research and Publications
- III. Effective Date: Apr. 6, 1959 (amended Oct. 8, 1959)

## IV. General Policies and Purposes

- A. Establish in the New Jersey State Department of Education an Office of Statistical Services.
- B. Determine what statistical data are needed in order to report and interpret effectively the status of education in the State.
- C. Examine critically the present statistical program.
- D. Develop and implement improved plans for collecting, verifying, processing, interpreting, and disseminating those statistics determined to be essential for reporting and interpreting local, State, and national educational programs.

## V. Proposed Program

*Improvement of Statistical Services in the New Jersey  
State Department of Education*

- A. Establish Office of Statistical Services.
  - 1. Make initial assignment of personnel for the Office of Statistical Services consisting of:
    - a. Director (responsible for administration).
    - b. Principal auditor (responsible for liaison with Division of Business and Finance).
    - c. Supervisor III (responsible for liaison with other divisions).
    - d. Supervising auditor (responsible for financial accounting as required by regulations under title X, analyzing current statistical records and developing a plan for their improvement, and implementing any plans approved for the improvement of statistical services).
    - e. Clerk-stenographer.
  - 2. Purchase initial equipment.
  - 3. Formulate basic plans for studying statistical needs of the department.
  - 4. Evolve a permanent organization for the Office of Statistical Services based on demonstrated needs as developed through studies described in "B," "C," and "D."
  - 5. Begin operation of Office of Statistical Services and perform activities as described in "B," "C," and "D."
- B. Determine statistical data needed (concurrently with "C").
  - 1. Determine what statistical data are needed in order to report and interpret effectively the status of education in the State, and establish a recommended order of priority for collecting such data.
  - 2. Plan studies in such areas as the following:
    - a. Statistical information needed to report and interpret effectively the status of educational programs.

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- b. Establishing effective methods of collecting statistical data to insure accuracy and completeness.
    - c. Timing the collection of statistical data to spread work loads more evenly in State and local offices.
    - d. Improving the verification of data collected.
    - e. Developing effective methods for processing various categories of data.
    - f. Diminishing the time lag in the printing of data.
    - g. Improving the interpretation of statistical data.
    - h. Determining how data should be disseminated and the persons to whom they should be sent.
    - i. Timing requests for statistical information in order to reduce, or spread more evenly, the reporting activities of groups supplying such information.
    - j. Developing organizational patterns for the Office of Statistical Services that will lead to effective implementation of the studies described above.
  3. Appoint an advisory committee to help plan and evaluate results of the above studies.
  4. Determine the content of an effective statistical services program through:
    - a. Analysis of nationally developed statistical handbooks.
    - b. Analysis of data collected by other State departments of education.
    - c. Expressed needs of persons interested in and working with New Jersey educational problems.
    - d. Advice of experts in the collection of statistical data.
  5. Employ consultants as needed to study and recommend the best methods for the collection, verification, processing, interpretation, and dissemination of statistical data.
  6. Compare the findings of the above studies with the findings of the concurrent studies in "C" to determine discrepancies that may exist between desirable practice and current practice in the collection of statistical data.
  7. Begin implementation of plans for the improvement of statistical services as outlined in "D."
- C. Examine present statistical program.
  1. Analyze carefully and systematically the data presently collected by the department to determine whether any can be eliminated, the extent of duplication of data collected, the occurrence of gaps in the collection of data, the need for increased accuracy in reporting and tabulating data, the need for increased speed in processing and disseminating data, and the need for improved methods of interpreting data.
    - a. Collect reports and questionnaires presently used by each division to collect statistical data.

- b. Appoint an advisory committee to assist in the evaluation of the effectiveness of such reports and questionnaires.
  2. Analyze present practices in the collection, verification, processing, interpretation, and dissemination of statistical data.
    - a. Analyze reports and questionnaires currently in use for duplication of requests for data, gaps in requests for data, and data collected but not used.
    - b. Obtain information concerning the accuracy of data presently compiled by the department.
    - c. Study the time lag which occurs due to the hand processing of statistics.
    - d. Study the need for employing professionally trained staff to improve the interpretation of statistics and to develop better ways of making statistical presentations.
    - e. Study any time lag which occurs in the release of processed data due to current procedures for printing.
  3. Employ consultants as needed to study present statistical procedures and make recommendations for improvement.
  4. Compare the findings of the above studies with the findings of the concurrent studies in "B" to determine discrepancies that may exist between current practice and desirable practice.
  5. Begin implementation of plans for the improvement of statistical services as outlined in "D."
- D. Develop and implement an improved program of statistical services.
1. Study methods for improving the processing of data.
    - a. Request a reliable manufacturer of mechanical data processing equipment to analyze forms now being used in order to make recommendations concerning the feasibility of coding forms and processing data by machine.
    - b. Employ independent consulting firm to review recommendations of equipment manufacturer and to help develop an efficient and economical plan for machine processing of data.
    - c. Make cost studies concerning the installation of offset printing equipment.
    - d. Investigate the need for employing professional staff to improve the interpretation and presentation of statistical data.
  2. Study the need for an inservice training program for statistical personnel.
    - a. Survey current practices for training new employees and improving the effectiveness of employee inservice.
    - b. Confer with division heads concerning the need for improving the current program.

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- c. If need is indicated, develop an inservice training program.
- d. Employ consultants or form advisory committee as circumstances require.
3. Examine relationships with other agencies concerned with the collection or use of educational statistics.
  - a. Invite those agencies to meet with representatives of the department to consider the need of a statistical advisory council.
  - b. If such a need is indicated, plan the organization of a council aimed at eliminating duplication of statistical effort, improving the quality and usefulness of statistics collected, and serving as a clearinghouse for statistical information, and implement the plan.
4. Survey current practices in improving the quality of statistical services.
  - a. Identify agencies operating effective statistical programs.
  - b. Visit those agencies for the purpose of observing programs in operation and adapting pertinent activities to the improvement of the department's statistical program.
5. Print and distribute to local school districts a new accounting manual intended to improve the speed and accuracy of reporting school accounting statistics, incorporating features of the cooperatively developed national handbooks, especially Handbook II.
6. Combine the recommendations developed through "B" and "C" with the studies completed to date as a result of "D."
7. Complete development of plans for the permanent organization of the Office of Statistical Services.
8. Complete plans for the installation of mechanical data processing equipment, and/or rental of such services, and of offset printing equipment.

### VI. Implementation of Program

A. FY 1959: Federal funds .....	\$1,568.80
State funds .....	1,570.00
Total .....	<u>\$3,138.80</u>

In the short time left in FY 1959 after New Jersey's plan was approved, initial assignments of personnel were made, general agreements were reached concerning intradepartmental relationships, preliminary plans were developed for additional office space, and basic equipment was purchased for furnishing the office.

Three department members were assigned part-time professional activities under the statistical services program—the director of the Bureau of Research, an auditor, and a research assistant. The department arranged to employ by July 1, 1959, a

full-time professional person to make the studies basic to implementing the State plan.

Plans were made to improve data collection procedures for the annual study of teacher supply and demand. Before title X, questionnaire forms had been distributed through county offices. Local responses were hand tabulated, resulting in an extremely heavy load on county offices and abnormal delays in processing and publication. Subsequent to adoption of the plan, responses were sent directly to the State office for verification and analysis and arrangements were made with a service bureau to process the data mechanically. This made it possible to publish the teacher supply and demand study some four to six months earlier than previously.

The director of the Bureau of Research managed in the two months left in FY 1959 to visit departments of education in Rhode Island, Iowa, Missouri, and Ohio, to consult with staff members about their statistical services program and observe IBM and offset printing equipment in action.

B. FY 1960: Federal funds .....	\$13,905.55
State funds .....	13,912.83
Total .....	\$27,818.38

During FY 1960 the State department of education continued to expand its statistical services program. As planned, more personnel were added—a full-time procedures analyst and two clerical workers. The procedures analyst will work with other department personnel to determine an optimum program and to recommend specific procedures and techniques to insure the most effective operation.

By the end of June 1960 the statistical services office had completed the collection and classification of some 125 statistical reports required on a regular basis by the various divisions and bureaus of the department. Analysis was also made of "Common Core" items. The next step will be an item analysis of data in these statistical reports.

IBM services were available to the department for the first time. Requests for data processing machinery have been included in the 1961-62 budget.

The Division of Business and Finance had worked with local, State, and national groups for several years to revise the school accounting manual. The completed manual was used on a pilot basis during the 1959-60 school year. If the procedures and forms are found to be effective, plans call for having it printed for permanent use.

The Division of Business and Finance also completed the *Chart of Accounts* and the *School Audit Program*. When the new system is completely adopted, financial data will be more nearly comparable to that in Handbook II, *Financial Accounting for Local and State School Systems*.

Forms for collecting information for the annual *Administrative Problems Study* were revised. For this study, 1959-60 data



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are available on punched cards and should be more readily available for both internal and external use. Reorganization of the office filing systems has been started.

The statistical services office purchased a vari-typer and trained a person to operate it. This, with the new drawing and lettering equipment, will help in disseminating information more quickly, more attractively, and at a considerably lower cost.

### NEW MEXICO

- I. Official Agency: New Mexico State Board of Education
- II. Administered by: State Superintendent of Public Instruction
- III. Effective Date: Nov. 28, 1958
- IV. General Policies and Purposes

- A. To evaluate present statistical services in terms of accuracy, efficiency, adequacy, and validity of data which is processed.
- B. To project and put into operation after the evaluation, a plan for strengthening areas shown by the evaluation to be inadequate; to organize workshops; to orient school administrators in the new plan for improvement of local statistical reporting; and to hold conferences with groups and individuals to further provide administrators with the necessary assistance and information.

#### V. Proposed Program

##### *Expansion and Improvement of Statistical Services for Education in New Mexico*

- A. The professional staff will include a director for collecting, recording, and reporting statistical information. Sufficient clerical staff will be added. The analysis and dissemination of educational data thus collected will be directed by a research specialist with additional persons trained in statistical methods and techniques including surveys, sampling of information, and inservice training programs at the local levels.

Training conferences at the State and local levels will be held to assist school administrators and staff to improve their fiscal, property, pupil accounting, and reporting procedures. Field services of consultants from the universities and colleges and supervisory personnel from the department of education will be made available to school systems where their services are found to be needed. Professional standards will be maintained in accordance with State board action on experience needed and certification requirements for various administrative or supervisory positions.

- B. The Handbooks, *The Common Core of State Educational Information* and *Financial Accounting for Local and State School Systems*, will be used as guides by the personnel in the Statistical Division. Also, the preparation of accounting and reporting manuals on New Mexico education will be developed to supplement manuals of the U.S. Office of Education.

- C. As the program develops and the need increases, it is proposed that a changeover to electronic machine equipment would be effected by availability of fiscal resources and trained personnel for operation of machine equipment.
- D. Review of the forms used in reporting from the school systems will be made regularly to insure adequate, efficient, and reliable reporting. Revision of forms will be made as needed to provide up-to-date and useful information.

Periodic bulletins will be prepared and published to be used for publicity and public relations purposes for local, State, and national groups interested in a factual, accurate picture of New Mexico education.

The purpose of this program for improvement of the Division of Statistical Services could be justified only by increasing the accuracy and usefulness of the data collected, by showing more clearly the conditions and problems of education, by improving the quality and distribution of publications, and by improving other areas for informing the public of all information data.

#### VI. Implementation of Program

A. FY 1959: Federal funds .....	\$ 3,595.27
State funds .....	6,612.64
<b>Total .....</b>	<b>\$10,207.91</b>

As of June 30, 1959, additional personnel had been recruited but had not yet reported for work. A director of the Statistics Division was to report August 1 and an accountant was to begin work July 1.

An evaluation committee was composed of State education department staff members and personnel from local districts, retirement, department of finance, and the State Educational Association. An important contribution of this committee was in defining the field of operation and suggesting policies for such operation. Data collection forms and procedures were reviewed critically and changes were suggested. This resulted in the elimination of considerable duplication which previously existed throughout the several divisions of the department and among the various governmental and nongovernmental agencies.

B. FY 1960: Federal funds .....	\$22,821.38
State funds .....	24,087.33
<b>Total .....</b>	<b>\$46,908.71</b>

Twenty-one workshops were held throughout the State for the purpose of evaluating reporting forms and better acquainting local administrative personnel with reporting procedures. These workshops have contributed to improved reporting forms and better coordination and cooperation.

Revised accounting procedures have resulted in the implementation of standard terminology as prescribed in Handbooks I and II.

An accounting machine was purchased and basic punch card equipment was placed on order. Arrangements were made with

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other State agencies for the use of some data processing equipment now being operated by those agencies.

An annual statistical report for the State of New Mexico was published for the first time. This method of reporting has proven to be a distinct improvement over the former biennial basis and has resulted in improved relations between local and State administrators.

### NEW YORK

- I. Official Agency: University of the State of New York, State Education Department
- II. Administered by: Assistant Commissioner for Research and Special Studies of the Department, including Bureau of Statistical Services
- III. Effective Date: Jan. 15, 1959 (amended Feb. 26, 1960)
- IV. General Policies and Purposes

The general aims, purposes, and policies of the State agency program for the improvement of statistical services are reflected in these principles:

- A. *The principle of parsimony.*—Information sought should be of such a nature that it can make a difference in the quality, support, nature, or purpose of education. The application of the principle of parsimony requires that the collection of outmoded data will be eliminated and that useful data will be collected and analyzed.
- B. *The principle of timeliness.*—In a period when price levels, numbers of students, characteristics of instruction, and social conditions are changing rapidly, governmental statistics related to education get out of date very rapidly. If there was a time when conditions were so stable that an annual statistical report one or two years old was sufficiently accurate, it is not so now. To make judgments today we need today's facts; in fact, we need tomorrow's projections.
- C. *The principle of continuity.*—Some statistics must be preserved in continuous series so that trends may be watched over a period of years. The principle of continuity places a caution on the kinds of statistics which might be discontinued under the principle of parsimony. It also demands that care be exercised in defining terms so that the definitions will continue to be workable under predictable changes in conditions. Furthermore, definitions should be nationally standardized, as far as feasible, to facilitate national summaries and interstate comparisons.
- D. *The principle of clarity.*—A kind of semantic difficulty creeps into statistical reporting. Even such a simple idea as a classroom doesn't necessarily mean the same thing to every possible respondent of a questionnaire. It certainly does not mean the same thing to every person who uses a statistical report. Thus, severe problems exist in being sure that the definitions used are sharp and precise.

**V. Proposed Program***Improving the Accuracy, Utility and Timeliness of Educational Statistics for the State of New York***A. Improvement of financial accounting.***It is proposed to:*

1. Employ consultants to detail need for change (in terms of research, local management, budget-making, etc.).
2. Provide model coding systems and other accounting assistance to yield answers to identified needs.
3. Arrange for parallel maintenance of accounts in several school systems for a tryout period.
4. Hold conferences about the State to secure understanding of, and readiness for, a changeover.
5. Bring about this changeover uniformly in the State and in such a fashion as not to destroy the continuity value of school fiscal history.
6. Issue bulletins and hold meetings for clerks and business managers of school systems in order to deal with problems of changeover, coding, etc., as they develop with the new system, as well as provide individual consultation where need is expressed.

**B. Improvement of census procedures.***It is proposed to:*

1. Work out appropriate forms, processes, techniques, etc., for districts of varying sizes and types.
2. Experiment with sampling techniques.
3. Secure appropriate arrangements for periodic rather than annual censuses, if that seems feasible.
4. Integrate education department concerns with those of other State agencies, if greater utility of data can be secured thereby.
5. Hold meetings and use other means of dissemination of the improved forms and techniques and provide consultative service to districts with the more difficult enumeration problems.

**C. Special assistance for large city districts.**

It is proposed to employ a statistical specialist to work with appropriate research and administrative personnel in the "Big-Six" cities to expedite statistical reporting in complex situations.

**D. Glossary of educational terms.***It is proposed to:*

1. Assign a person on a part-time basis to put the present glossary into publishable form.
2. Check all offices of the department on adequacy and accuracy.
3. Work with the users of State statistics to make definitions and coverage more adequate.
4. Consult with national groups and groups in other States, as well as with other units of New York State government, to secure proper coverage and sharpness of definition.

5. Publish the initial document and supplements as appropriate.

E. Improvement and integration of forms.

It is proposed to employ an executive secretary for the Committee on Forms and Reports. He shall be attached to the staff of the assistant commissioner (research) of the New York State Education Department. His duties shall include:

1. Organizing forms and issues to be brought to the attention of the department-wide Committee on Forms and Reports.
2. Consulting with department groups so as to secure understanding of the committee's recommendations.
3. Distilling policy positions out of series of discrete decisions.
4. Facilitating multiple use of statistics and information gathered by the bureaus, divisions, and units of the department.

F. Use of mechanical aids.

It is proposed to add to (or substitute for) several IBM machines, absorb part of the use of a #650 IBM computer, explore the use of mark-sense and memory-type machines, supplement the staff of operators to work with the machines, and add two professional statistical positions for designing and programming.

With more adequate machine installations, it will be possible to extend the scope and depth of data handled, particularly in regard to data for private schools without academic departments, census of school and preschool age population, data on pupil achievement, data on school curricula, and data related to teacher characteristics and teacher turnover.

G. Dissemination of educational information.

It is proposed to expand and improve the visual presentation of data through such media as lithography, models, slides, transparencies, film strips, and films. Such equipment as is necessary will be purchased.

H. Higher and professional education.

It is proposed to employ consultants to advise on the development of new and revised forms, the strengthening of existing data collection machinery, the processing of data and its dissemination. Basic statistics of greater refinement will show undergraduate, graduate and professional data by levels and fields. New areas such as information about facilities and their utilization will be incorporated. Continuing attention will be given to improve interpretation of the trends in planning for the needs of higher and professional education, to the dissemination of information, and to revealing guides to policy.

I. Financial statistics.

It is proposed to organize a Bureau of Educational Financial Research staffed with permanent new positions as follows:

1. Chief (grade 28).
2. Senior research analyst (public finance—grade 23).

3. Senior economist (grade 18).
4. Economist (grade 14).
5. Stenographer (grade 4).

In this connection it is proposed to strengthen and expand the processing, analysis, interpretation, and dissemination of financial and related statistics for the improvement of planning at all levels and in every aspect of the educational system. Equipment will be purchased as required.

**J. Data accessibility.**

It is proposed to explore the possibility of bringing information to one central point to facilitate studies of trend, status, and interrelationship through the use of such modern methods as microfilming and the mechanical summarization of old and new data. Eventually a central bank of data could evolve as new data-handling techniques evolve. Equipment as needed for the efficient operation of the project is to be included.

**VI. Implementation of Program**

A. <i>FY 1959: Federal funds</i>	\$12,327.30
State funds	12,327.31
Total	\$24,654.61

An assistant in education research formerly engaged in research was assigned full-time to improvement of statistics. A research aide was assigned part-time to this work and professional and clerical time of other personnel was used as needed. Services of a consultative staff were obtained by contract with the Educational Research Service, Inc., of the State University of Pennsylvania.

A committee of representatives of various units within the education department was set up to review proposed forms and questionnaires for collection of data. The purpose of the committee is to reduce any duplication of questions and eliminate unnecessary and unproductive questions. The committee performs an important function in coordinating the data collection aspect of the department's statistical program. The assistant in education research assigned to statistical services acted as secretary to the committee.

A draft of a glossary of terms used in the education department was in process with the intention that it be published as a handbook to serve in clarifying definitions of terms used in statistical work. By means of the contract with Educational Research Service, Inc., mentioned above, an improved coding system for financial accounting for school districts was developed. The coding system was expected to be more uniform, complete, of greater mutual exclusiveness of items, and to yield combinations that are meaningful in national, State, and local school management.

The improvement of school census procedures was initiated by exploratory visits to certain school districts in order to study the problems and possibilities.

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A sample of schools was developed for a survey of teacher characteristics. Previous studies of these characteristics were done on a complete State basis and required excessive time in processing.

B. FY 1960: Federal funds	\$33,977.00
State funds	33,978.00
Total	\$67,955.00

The Committee on Forms held monthly meetings to review all forms being originated in the education department or being considered for use. The secretary to the committee carried on continual studies to improve coordination.

A first draft of the glossary of terms used in the education department was prepared and reviewed by staff members and persons outside the department. A revised draft was to be released. The glossary will improve statistical practices by clarifying and standardizing terminology.

Accuracy of data was improved by studies of accounting methods used in school districts and studies of higher education data. The following publication was prepared for the State education department through a contract with Educational Research Service, Inc., University of Pennsylvania: *Structure for a Modern Coding and Classification System of Financial Accounts in New York State Public Schools.*

New procedures were developed for projecting elementary, secondary, and higher education enrollments. Plans were made for the assignment of personnel to work with the large cities which have difficulty in submitting their statistical data on schedule. In the area of mechanical data processing, one reproducer, one sorter, and one verifier were added to the equipment. Plans were developed for acquiring additional staff members in this area.

A comprehensive subject matter file for statistical data has been established and will be continued. Initial work has been done on the extension of graphic methods for dissemination of data and the use of slides and color.

## NORTH CAROLINA

- I. Official Agency: North Carolina State Board of Education
- II. Administered by: State Superintendent of Public Instruction  
Controller of the State Board of Education
- III. Effective Date: July 20, 1960
- IV. General Policies and Purposes
  - A. Enlarge, expand, and improve present facilities for collecting, processing, and disseminating all needed educational statistics through increased centralization, better organization, and improved coordination of existing services.



- B. Provide for the collection and utilization of statistical information that is not currently available.
- C. Improve techniques and procedures for gathering and reporting data, with special emphasis on the need for keeping statistical information current. The need to reduce the present "timelag" is considered to be of paramount importance.
- D. Improve the interpretation of all statistical data in order to provide an optimum base for sound educational planning.
- E. Provide State and local statistical reporting personnel with forms, manuals, and handbooks of a clear and explicit nature, with the view of encouraging and expediting the prompt submission of accurate and complete statistical reports.
- F. Bring about standardization of terminology, definitions, and measures in terms of the various handbooks issued by the U.S. Office of Education and devise effective means of transition to the use of such standard terminology.
- G. Provide an increased understanding on the part of all statistical reporting personnel of the importance of statistical data as the basis for sound educational planning. Thorough realization of the ultimate utilization of statistical data, it is believed, will have a beneficial effect in motivating both promptness and accuracy at the reporting source.
- H. Provide equipment and personnel necessary to effect a gradual transition from hand tabulation to machine processing methods.

#### V. Proposed Program

##### *Program for Improving Statistical Services*

- A. Expansion of staff.
  - 1. A new position entitled "supervisor of statistical services" will be created upon approval of the plan.
  - 2. The following persons will be added to the staff as rapidly as implementation and expansion of the plan will permit: one clerk to serve as a general assistant to the supervisor of statistical services, one stenographer-typist to provide stenographic services to the Statistics Section exclusively, one tabulating equipment operator, and one key punch operator. Additional personnel will be employed commensurate with expansion of the program.
  - 3. It is proposed that all staff positions listed in "1" and "2" shall be in addition to the positions of statistician and research assistant-typist currently in existence. Salaries and specifications for all new positions will be subject to review and approval by the State personnel department.
- B. Major revision of reporting instruments in procedures.

An analysis of existing procedures indicates the need for certain operational changes aimed at improving the reliability, validity, and timeliness of the processed statistical data emanating from the Statistical Section of the State education agency. Among the specific activities to be carried out under the plan to effect such improvement are:

1. Revision will be made to Form S-1 (primarily a pupil accounting record submitted by individual superintendents after the close of each school year; also contains limited information on instructional personnel, school buildings, libraries, and transportation), primarily through the elimination of data which is now available from other sources and through such changes in terminology as are necessary to bring about conformity with the handbooks issued by the U.S. Office of Education.
2. Major revision will be made to Form S-2 (a financial report form which shows available funds by source and disbursement by accounts for current expense, capital outlay, and debt service, as well as other financial items, including property valuations and tax rates), now considered to be cumbersome and outmoded.

It is anticipated that this revision will result in a completely new form, both as to format and coverage, since there is a pressing and immediate need for a financial report form using standardized terminology, definitions, and measures as set forth in Office of Education handbooks. There also appears to be need for simplification and/or clarification of the form in order to make the information available on a more current basis. The present time lag from reporting unit source to Statistical Section is from four to nine months, an obviously excessive amount of time. The complete revision of the form should materially decrease the existing time lag.

3. The creation of additional *short forms* for partial and preliminary statistical information is deemed essential. The forms covered in "1" and "2" are lengthy and complete, and are submitted on an annual basis only. There is obvious need for more frequent, though less complete, information for sampling and projection purposes. A comprehensive and continuing study under the plan will result in new forms being devised and put into use for this purpose. There is strong reason to believe that total dependency on reports made on an annual basis has the inevitable result of lessening the value of the information derived because of the excessive time lag and lack of flexibility.
- C. Establishment of a central agency for statistical services and initiation of a continuing study to improve these services.

The present practice of collecting all current data through numerous divisions of the State education agency makes duplication of many items unavoidable. The plan proposes to lessen this duplication by utilizing these steps:

1. Comparison and analysis of reporting forms currently used by all divisions of the State education agency, with the ultimate goal of sufficient form revision to eliminate duplication.
2. Reorganization and reorientation of staff procedures to provide for the collection of needed information which is not now being collected on a routine or periodic basis.

3. Utilization of the Statistical Services Division as a "clearing house" for the interchange of pertinent data among the various groups making up the State education agency as a means of reducing duplicate requests for information. Requests for special information will be channeled through the Division of Statistical Services to insure that the requested information is not already available.
4. A continuing study will be initiated to determine what types of additional information should be collected, processed, stored, and disseminated. The need to establish channels for collecting data concerning nontax-supported schools is already foreseen. Educational statistics from private schools, kindergartens, and community colleges are needed for a more comprehensive picture of the total educational structure, and the necessary activities for collecting, processing, and disseminating such information as this will constitute a new program under the plan.
5. The probability exists that the increased use of correlation studies and experience-projection studies will open up new areas that will affect the gathering and reporting of statistical data. Pilot studies to determine the areas which lend themselves to efficient use of this type of statistical utilization will be initiated as soon as the plan is approved and functioning. This is regarded as an entirely new activity, in view of the fact that it will result in the collection and utilization of data in areas beyond those now covered.

D. Inservice training of staff and other statistical reporting personnel.

Provision will be made for inservice training programs for State and local statistical reporting personnel, using such consultants and resource personnel as may be needed.

1. Reporting manuals and handbooks keyed to items on report forms and using terminology and measures from Office of Education handbooks will be prepared and distributed. Regional workshops will be carefully organized and conducted to instruct local educational secretaries in the proper use of revised forms, using the reporting manuals as a guide. There is urgent need that this be accomplished immediately.
2. Improvement of techniques and procedures used by all statistical reporting personnel will be carried out through an inservice training program aimed at developing in all employees maximum familiarity with techniques and procedures that show promise in an effort to provide statistical data that is reliable, valid, and current.

E. Conversion to machine processing of statistical data.

At the present time all data processing is done manually. It is proposed that mechanical and/or electronic data processing equipment will be purchased or rented subject to the availability

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of funds, and that a transition from manual to machine processing will occur.

A study of machine processing systems currently in use in selected State agency offices is contemplated as a logical basis for implementation of this activity.

### VI. Implementation of Program

A. *FY 1959*: No program in operation.

B. *FY 1960*: No program in operation.

(Note: North Carolina's plan for improving statistical services became effective in FY 1961.)

## NORTH DAKOTA

I. Official Agency: Department of Public Instruction

II. Administered by: State Superintendent of Public Instruction

III. Effective Date: May 15, 1959

### IV. General Policies and Purposes

To improve and strengthen the adequacy, reliability, and usefulness of educational statistics provided by State and local reports and records, the methods and techniques for collecting, verifying, and processing educational data, and the dissemination of information about the condition and progress of education in North Dakota.

### V. Proposed Program

*Improvement and Expansion of the Statistical Services of the North Dakota Department of Public Instruction*

A. Evaluation of present program of statistical services.

1. Establishment of an advisory committee.
2. Assignment of present and additional professional staff members to compile materials and information.
3. Identification of strengths and weaknesses of present program and presentation of recommendations for improvement.

B. Development of an accounting manual.

1. Use of consultants and statewide meetings in preliminary planning.
2. Development and printing of manual.
3. Implementation of manual through regional meetings with local and county school officials.

C. Inauguration of machine tabulating procedures in the handling of statistical data.

1. Consider recommendations of the advisory committee and the adaptation of statistical data to punched card processing.
2. Visit other State education agencies to study machine systems in operation.
3. Develop necessary systems and procedures.
4. Install machinery and acquire necessary professional and clerical staff.

**VI. Implementation of Program**

A. <i>FY 1959</i> : No program in operation.	
B. <i>FY 1960</i> : Federal funds	\$1,283.88
State funds	1,295.00
Total	\$2,578.88

Two statewide advisory committees were organized: one for the evaluation of State department statistical services, and one for development of the accounting manual.

Upon recommendation of the evaluation committee, a graduate student was employed on a part-time basis to provide professional leadership and assistance.

The first draft of an accounting manual was developed during this fiscal year.

**OHIO**

I. Official Agency: State Board of Education

II. Administered by: Superintendent of Public Instruction

III. Effective Date: Feb. 24, 1959

**IV. General Policies and Purposes**

- A. Centralize and coordinate existing statistical services.
- B. Collect, publish, and disseminate statistical information not currently collected, such as:
  1. Data from nontax supported schools. (Effective Sept. 1, 1959, all such schools, teachers, and administrators are required to meet the same standards as public schools.)
  2. Studies related to the number of teachers who drop out of teaching annually, analysis of the reason why, and a compilation of the number who plan to return at specified times and under certain conditions.
  3. Tables showing teachers' preparation, certification, and experience in service.
  4. Age and grade projections to determine need for additional facilities.
  5. That arising out of new legislation.
- C. Speed up procedures for gathering and reporting data.
- D. Improve the interpretation of all statistical reports.
- E. Publish and distribute more attractive and readable reports.
- F. Prepare manuals and handbooks for the use of State and local personnel having responsibilities in collecting statistics.

**V. Proposed Program***Improvement of Statistical Services*

- A. Effect of reorganization of department staff to provide better administrative and supervisory controls as well as centralization and coordination of activities.
  1. Create a Division of Research to which the Statistical Services Section, currently attached to the Division of School Finance, will be transferred.

- a. Administrative head will be a director, responsible to the assistant superintendent in charge of school administration, who will centralize and coordinate the statistical services activities of the department and have supervision and control of the Statistical Services Section of his division.
  - b. A full-time chief statistician, heading the Statistical Services Section, will direct and supervise the work of a full-time clerk-typist and such other personnel of other divisions as are involved in the collection and reporting of statistics.
- B. Revise all existing forms currently used in the collection of data.
    - 1. Obtain aid of consultants and local school administrators in this revision.
  - C. Devise new forms for the collection of data not currently gathered and reported, such as data from nontax supported schools that are required after Sept. 1, 1959.
  - D. Prepare manuals and guides for the use of school secretaries or other personnel in local school systems having responsibilities for the collection and reporting of data. These would include:
    - 1. A personnel and property reporting manual.
    - 2. A financial accounting handbook.
  - E. Provide a central reporting agency to eliminate the collection of duplicate information. (For instance, instead of the three agencies collecting enrollment data with reports in three different publications, make one agency responsible for collecting such data.)
  - F. Contract for machine processing services to speed up the processing and hence the dissemination of data. (Plan in FY 1961 to purchase card punching and sorting equipment.)
  - G. Conduct workshops and conferences for inservice training of local school personnel in interpretation of manuals and forms.
  - H. Promote the inservice growth of State staff personnel having responsibilities in statistical services, training in statistical techniques.
  - I. Expand the *Annual Report of the State Board of Education and the Superintendent of Public Instruction to the Governor and General Assembly* to include many statistical tables currently reported in other publications. Include a narrative report to provide more accurate interpretation. Print report in a more attractive form and give it wider distribution.

VI. Implementation of Program

A. FY 1959: Federal funds	\$10,742.65
State funds	10,742.66
Total	\$21,485.31

A director was appointed for the newly created Division of Research. The Statistical Services Section, which has been in the Division of School Finance, is now in this new division. The director of the Research Division will centralize and coordinate the

statistical services activities of the entire State department of education.

A limited use had been made of the cooperatively developed national handbooks. The department plans to incorporate standard terminology as reporting forms are revised.

With the exception of certain financial information, data was processed manually. Present plans call for increased amounts of machine processing.

B. FY 1960: Federal funds	\$48,533.81
State funds	48,533.81
Total	\$97,067.62

The new Division of Research in fiscal 1960 consisted of three professional and three clerical staff members. The organization and coordination of statistical services were being studied to reorganize data collection procedures within the department. Staff members were developing an optimum statistical services program, bringing other divisions into the program as their needs dictated.

A manual was being developed to accompany a revised financial form. The *Annual Financial Report* was three months ahead of previous schedules due to the speeding up of collection and processing of data.

Statistical services staff continued to work on form revisions to include standard terminology consistent with the cooperatively developed national handbooks.

Clerks' clinics held throughout the State have helped to improve the accuracy of data received from local administrative units.

## OKLAHOMA

**I. Official Agency:** State Board of Education

**II. Administered by:** State Board of Education  
State Superintendent of Public Instruction  
Administrator of Title X

**III. Effective Date:** Mar. 27, 1959 (amended May 2, 1960)

**IV. General Policies and Purposes**

The general aims, purposes, and policies of the State board of education for the improvement of statistical services are:

- A. Make a complete analysis of the types and amount of statistical data that are gathered.
- B. Analyze methods and techniques by which data are collected and processed.
- C. Evaluate existing media by which information is disseminated.
- D. Establish a common core of State educational information so that State records will be more consistent with that of other States.



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- E. Devise a system by which educational statistical data are collected, processed, and disseminated in a more efficient and effective manner.
- F. Conduct inservice educational activities for the purpose of developing more proficiency in reporting by State and local educational agencies.

### V. Proposed Program

#### *Improvement of State Educational Statistical Services*

##### A. Evaluation of existing statistical services.

It is proposed to make a complete analysis of the reporting forms, in order to eliminate unnecessary duplication and provide a coordinated program of statistical reporting. This evaluation will include an analysis of methods and techniques for collection, processing, and dissemination of data. The possibility of adopting forms and procedures to machine processing of data will be considered as evaluation is made.

##### B. Implementation of cooperatively developed national handbooks.

While cursory attention has been given to terminology as set forth in Handbook I, no attempt has been made to implement its use throughout the State. Although data are collected in terms of accounts as set up in Handbooks II and III, the systems are not completely established in school accounting in the State. It is proposed to implement the use of Handbooks I, II, and III in the schools of Oklahoma.

##### C. Inservice education of personnel in statistical services at the local school district level.

It is proposed to plan and conduct workshop-conferences and consultations throughout the State as a part of improving the reporting of educational information by personnel at the local educational agency level.

##### D. Improvement in the dissemination of statistical information about education.

It is proposed to improve the quality of published reports and to devise additional publications which will reflect facts about education as they become evident through improved statistical services.

##### E. Establishment of a system of machine data processing for the department of education.

It is proposed to purchase and/or rent modern data processing equipment, such as key punches, verifiers, sorters, reproducers, interpreters, collators, accounting machines, and tabulators.

It is further proposed to convert to machine processing such areas of statistical services as teacher personnel, State aid statistics, accreditation data, transportation data, pupil personnel data, and financial data.

In addition to the cost of purchase or rental of equipment, this activity will necessitate additional expense for personnel, minor remodeling, electrical wiring, and such auxiliary supplies and equipment as cards, forms, control panels, filing cabinets, and electroplates. There will also be some expense for contract work

on a computer at some agency such as the University of Oklahoma or Oklahoma State University of Agriculture and Applied Science.

Since part of the records are microfilmed and the only microfilm reader is located in a different office, the department plans to buy a reader to facilitate this part of the project.

Part of the source documents such as personnel records are very old and are an essential part of the continuing program of data processing. Constant handling is impairing their readability. It is planned to microfilm these to facilitate their use.

#### VI. Implementation of Program

A. <i>FY 1959</i> : No program in operation.	
B. <i>FY 1960</i> : Federal funds.....	\$50,000.00
State funds .....	67,268.17
<b>Total</b> .....	<b>\$117,268.17</b>

A director of statistical services, a secretary-tabulator supervisor, a full-time tabulator operator, one half-time key punch operator, and one half-time records clerk were added to the personnel of the Statistical Services Division. In addition to the above personnel, 16 part-time professional employees and 5 part-time clerical employees were assigned to the project.

All divisions of the department evaluated their respective reports and an overall survey was made as a preliminary step toward centralizing reports.

Handbook II terminology was implemented in financial accounting and Handbooks I and III were also used as a basis for all new reports. The development of State handbooks was initiated to provide for data processing codes and for transition to the new system of reporting.

Some basic information is now preprinted on report forms; consolidation of report forms and elimination of certain duplicated items simplified reporting procedures for local personnel.

Equipment purchased during this fiscal year included: two key punch machines, one verifier, one sorter, one reproducer, and one accounting machine (407). An order was placed for a collator, and one interpreter was acquired on a rental basis.

Four workshops have been held for State agency personnel in order to acquaint them with the fundamentals and objectives of machine data processing.

## OREGON

**I. Official Agency:** Superintendent of Public Instruction

**II. Administered by:** Superintendent of Public Instruction  
Director, Research and Apportionment

**III. Effective Date:** Nov. 25, 1958

**IV. General Policies and Purposes**

To develop and carry out a plan for collecting, processing, analyzing, interpreting, and reporting data and to improve the

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accuracy and validity of such data and its processing as will permit the State educational agency to present, within the proposed program, a more complete picture of conditions and progress of education in Oregon and to develop more efficient and more valid financial and educational procedures.

### V. Proposed Program

#### *Development, Expansion, and Improvement of the Statistical Service Functions of the State Department of Education*

- A. Improve the collection, analysis, and reporting of statistical data supplied by local educational units.
  1. With the aid of a State advisory committee and consultants, conduct a survey to determine what raw data, analyses, and studies are needed to satisfy current needs in the field of education. Needs of the Federal Office of Education, the State department of education, and related agencies should be considered. To be active during the fiscal years 1958-59 and 1959-60.
  2. Review and evaluation of present program of record and report forms in the light of survey findings to determine adequacy, clarity, and ease of processing. Revise old forms or develop new forms to satisfy requirements determined. This will require additional professional and clerical personnel time. To be active during fiscal year 1959-60.
  3. Dissemination of such data, analyses, and studies, as determined under "1," through bulletins, reports, charts, or other communication media. This will require additional professional and technical personnel and clerical personnel time. To be active during fiscal years 1958-59, 1959-60, 1960-61, and 1961-62.
- B. Develop accounting and reporting manuals to serve as guides for local educational units.
  1. Coordinate the work of the "State Advisory Committee on Public School Financial Accounting and Reporting" now completing its study, complete proposed manuals on budgeting and accounting, and develop record and report forms. Will require additional professional and clerical personnel time. To be active during fiscal years 1958-59 and 1959-60.
  2. Organize State advisory committees to:
    - a. Study, review, and evaluate the property accounting handbook issued by the Federal Office of Education in the light of Oregon's needs, coordinate the work of the committee, and prepare a manual for Oregon if this work is deemed necessary.
    - b. Study the personnel accounting system used in Oregon, coordinate the work of the committee, and prepare a manual and all necessary record and report forms. This will require additional consultants, professional personnel, and clerical personnel time. To be active during fiscal years 1959-60 and 1960-61.

- C. Conduct conferences and training programs for personnel of local educational units and periodically review and evaluate these programs:

Conduct conferences at the State level and training programs at the county or district levels to instruct personnel at county and local levels in the interpretation and use of financial, property, and personnel accounting manuals and proper completion of all record report forms used in connection with these. This will require additional professional personnel and clerical personnel time, and will be active during fiscal years 1959-60, 1960-61, and 1961-62.

- D. Improve methods for obtaining from other State agencies and other agencies collecting data pertinent to education in Oregon, data not collected by the State educational agency:

Organize a State advisory committee to determine what pertinent information can be secured from other agencies and develop procedures for its collection. Coordinate the work of the committee, set up procedures for collecting such information at the State level, and prepare any necessary reporting forms. This will require additional consultant, professional, and clerical personnel time, and will be active during the fiscal year 1959-60.

- E. Expedite the processing and reporting of statistical and other educational data through installation and operation of mechanical and other equipment.

1. Survey facilities now available at the State level for mechanical and electronic processing of data in relation to current operations in the State education agency and in relation to expansion of such operations.
2. Install such additional equipment as will expedite the processing and reporting of statistical data to the extent that such installation is financially feasible.
3. This area will require additional professional, clerical, and technical personnel time, and will be active during fiscal years 1959-60, 1960-61, and 1961-62.

- F. Develop better methods and means of organizing and maintaining statistical and other records and reports in order to expedite and render these more useful for processing, reference, and research purposes.

- G. After initial studies of need, means, and methods have been made, evaluate periodically, as needed, the status of the statistical services program for the purpose of maintaining it at the desired level of usefulness and to adjust it to changing conditions.

#### VI. Implementation of Program

A. FY 1959: Federal funds .....	\$4,547.06
State funds .....	4,547.06
Total .....	\$9,094.12

One research analyst, one accounts executive, and one statistician were added to the statistical services staff during the year.

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Two State advisory committees were formed—one central committee for the project as a whole, and one for the development of budget and accounting manuals.

Present services were inventoried and were in process of evaluation by the central committee.

Classification of raw and processed data was improved through revised codification and filing.

Development of the budget and accounting manuals was nearing completion by the end of the year.

B. FY 1960: Federal funds.....	\$11,843.90
State funds .....	11,844.09
Total .....	\$23,687.99

One clerk-typist was added to the statistical services staff.

Statistical services inventory was continued and a partial evaluation was made by the central advisory committee.

Manuals and guides on budgeting and accounting were completed in tentative form. Workshops were held for school clerks in order to acquaint them with these new forms and procedures. Some groundwork was laid for the production of manuals on personnel and property accounting.

Dissemination of data needed for the solution of specific problems was increased.

Preliminary plans were made for the transition to machine data processing.

## PENNSYLVANIA

I. Official Agency: Department of Public Instruction of the Commonwealth of Pennsylvania

II. Administered by: Director of Bureau of Research

III. Effective Date: Nov. 7, 1968

IV. General Policies and Purposes

- A. Determine the kinds of data which should be collected and review data now being collected to ascertain means and areas for improvement and expansion.
- B. Improve the reporting of data at the initial source, develop guides and manuals for use at the reporting level, and conduct conferences and seminars at local and regional levels for training purposes.
- C. Collect the needed data from local sources by the most economical and efficient methods and conduct periodic reviews to evaluate the program of records and reports.
- D. Verify, collate, and organize data at the State level for maximum utility at the earliest possible date through leadership in the selection and use of mechanical equipment at local and regional levels.
- E. Select at the State level additional personnel and mechanical equipment where needed to improve and expand the program

and bring the Pennsylvania statistics in line with recommendations in Handbooks I and II.

#### V. Proposed Program

##### *Improvement of the Statistical Services of the Department of Public Instruction*

All parts of the statistical services program will involve additional personnel in the State department of public instruction:

- A. Public school finance, personnel, and other pertinent public school statistics.
  1. Expand statistics collected for the Annual Financial Reports.
    - a. Include a breakdown of the major classifications of expenditures into elementary and secondary costs.
    - b. Include compilation of costs for special, vocational, audiovisual, driver, extension education, etc., and miscellaneous funds.
    - c. Use Handbooks I and II as a guide in the revision of forms used to collect data.
    - d. Tabulate data mechanically.
    - e. Hold training programs in the use of revised forms.
  2. Expand transportation statistics to include such items as number of school buses, number of accidents and fatalities, number of miles traveled, etc., as recommended in Handbook I.
  3. Tabulate information on reimbursements to school districts so that losses on account of excessive pupil-staff ratios, inadequate programs, and the employments of teachers having emergency certification may be available.
  4. Tabulate data on distressed and handicapped school districts, including number of such districts, county-plan reorganization status, local ability to support education, local tax rates and collection, number of taxables, and other possible reasons for being distressed or handicapped.
  5. Tabulate number of districts receiving supplemental payments under the State's reimbursement formula, including number of districts receiving payment, amount received, those refused payment, number of merged and union districts, and amount of money paid to approved 1-room schools and small high schools.
  6. Speed up the collection of child-accounting data. These data include enrollments, employment of school age minors, school census, district teaching units, and reimbursable teaching units.
  7. Speed up collection and tabulation of professional and nonprofessional personnel, including total in State, position, turnover, certification, education, sex, years of service, and salary.
  8. Revise and expand the Secondary School Report to include more detailed information on number of schools, classification, enrollment by grade and sex, graduates

by sex, activity following graduation, enrollment data by programs—subject and course, and pertinent extra-curricular information. Include more detailed data from nonpublic schools.

- a. Hold conferences for revising and implementing forms.
  - b. Use Handbooks I and II as a guide in revision.
  - c. Develop handbooks for use with forms.
  - d. Code data for IBM tabulation.
9. Develop an Elementary School Report following the same procedure as that for the Secondary School Report. Tabulate schools by organization, teachers, total enrollment, and grade, as well as enrollments in such subjects as foreign language and science. Include data from nonpublic schools.

**B. Public school personnel statistics.**

1. Special education data.
  - a. Speed up the collection and compilation of special education data relative to costs, enrollments, teachers, and number of classes. Special education areas include speech education, deaf and hard of hearing, sight conservation, blind, restoration (remedial reading), mentally retarded, mentally advanced, orthopedically handicapped, emotionally and socially maladjusted, and physically delicate.
  - b. Collate the obtained data so as to foster greater and more efficient use of the information.
  - c. Classify the data to fit the definitions contained in Handbook I.
  - d. Expand the collection of data obtained for public schools to include comparable information regarding nonpublic schools and State-owned institutions.
2. Advance statistics on school and college enrollments.
  - a. Project school and college enrollments annually at the county level instead of the State level.
  - b. Provide annual advance statistics on certain school needs, such as need for teachers at the various levels, number of potential first grade students, number of ages of high school graduates, number of college freshmen, holding power of the schools, etc. These advanced estimates are to be made at the county level, and, in certain cases, at the local level of school administration.
  - c. Provide annual advance estimates of grade enrollments at the State level and also at the county level where basic information is available.
3. Professional personnel data.
  - a. Establish and maintain an IBM card list of professional personnel in Pennsylvania schools.



- b. Post such data as yearly salary, experience, certification, education, position, teaching assignment, sex, marital status, age, etc., on each employee's IBM card.
  - c. Use machine tabulation of cards to aid in processing professional personnel records so that classification of the information into desired categories can be accomplished efficiently.
  - d. Compile professional personnel data annually, such as salaries, education, experience, certification, position, etc., so that these variables can be compared with one another for each individual employee.
  - e. Arrange classifications of positions and teaching assignments so that they can be readily compiled into professional personnel positions as defined in Handbook I.
4. Vocational education data.
- a. Expand the collection and compilation of vocational education information to include not only data relative to federally supported programs but also data relative to vocational-type courses which are offered as part of the general program by the public schools. Information will include enrollments, teacher certification, costs, etc., in areas such as home economics, agriculture, industrial arts, distributive education, etc.
  - b. Gather and process these statistics on an annual basis and, wherever possible, make them comparable to similar information collected for federally aided programs in vocational education.
5. Driver education data.
- a. Expand statistical services for driver education programs by collecting and processing data relative to performance records of driver education course graduates. The form for collecting these statistics will be developed cooperatively with the Pennsylvania Bureau of Motor Vehicles and specialists in the field of driver education. Information will include such data as number of arrests, number of accidents, etc., for driver education graduates.
  - b. Collect and process these statistics on an annual basis.
6. Statistics on high school students and high school graduates.
- a. Expand statistics of high school students and high school graduates by collecting annually, data on courses pursued in school, activities following graduation, achievement test scores, IQ test scores, etc.
  - b. Analyze and evaluate such statistics.

C. Statistics involved in school district reorganization and school plants.

1. Improve and expand statistics on school district reorganization by obtaining a more comprehensive breakdown of such reorganization. Data will be analyzed as to types of districts reorganized, types of programs, and the rate of reorganization. A continuous tabulation of district reorganization changes will be made.
2. Obtain statistics relative to the progress of present building construction. This program will be implemented by correspondence with officials concerned with the specific project in question, compilation of data on a proposed progress report, and through direct visitation.
3. The statistics concerning school building construction since 1950, presently available on different records, will be consolidated in one easily accessible place. Data on new building construction, such as costs and type of construction, will be verified and transferred to the Burroughs Sensimatic Accounting Cards. A perpetual inventory of school building construction will be kept on McBee Keysort cards.
4. Make a survey of present school buildings in Pennsylvania. A card for each school building will be kept with information on pupil capacity, different types of rooms, number of classrooms, etc. Changes will be noted on the cards each year by checking data from the perpetual inventory on school building construction.

D. Higher education statistics.

1. Revise and expand the Report of Higher Institutions of Learning to include statistics from the 14 State teachers colleges as well as all other colleges and universities.
  - a. Analyze suggested revisions as specified by selected colleges and universities.
  - b. Conduct workshops to develop accurate reporting practices based on the new revised forms.
  - c. Verify, tabulate, and process data contained in these reports.
  - d. Prepare revised report for IBM coding.
  - e. Disseminate higher education statistics by a bulletin and/or briefs on some specific area (for instance, increase or decrease of financial receipts).
2. Bring greater conformity in teacher supply and demand data.
  - a. Tabulate and process teacher supply and demand statistics in one bureau to better coordinate such data.
  - b. Enlarge reports and obtain a further breakdown of information relative to new teachers employed each year.

- c. Implement an analysis of teacher supply and demand statistics, such as projections, teacher needs by subject area, teaching assignments of teachers transferring from one school to another, etc.
  - d. Tabulate data as it is gathered by questionnaires, so it can be used in the preparation of the Annual Teacher Supply and Demand study for publication at a much earlier date.
  - e. Hold workshops for teacher education institutions, presenting statistics on supply and demand to help prepare specific types of teachers for the future.
8. Prepare annual fall enrollments of all colleges and universities at an earlier date than previously (possibly by December 1). Statistics gathered and tabulated will include full-time, part-time, and freshmen enrollments.
- K. Nonpublic school statistics.**
- 1. Improve statistics from nonpublic secondary schools.
    - a. Revise and expand report for collecting statistics so that information will be comparable to that collected from public schools.
    - b. Send revised reports to key areas for evaluation.
    - c. Develop a manual of instructions, containing definitions of terms as used in Handbook I, to accompany forms when revisions have been determined.
    - d. Continue to process data by machines. Use such data for projecting college enrollments, determining class size, etc.
  - 2. Develop a form to collect statistics from elementary schools.
    - a. Hold regional seminars with nonpublic elementary school officials to review and clarify the initial report form.
    - b. Develop a manual of instructions, using definitions in Handbook I as a guide, to accompany report forms.
    - c. Design report forms for machine processing to develop increased efficiency in tabulating the new statistics.
    - d. Collate with public elementary school statistics to aid in formulating improved educational policies.
  - 3. Develop an adequate listing of nonpublic schools.

**VI. Implementation of Program**

A. <i>FY 1959</i> : Federal funds .....	\$4,760.05
State funds .....	4,760.05
Total .....	\$9,520.10

Plans for a new statistical unit within the Bureau of Research were made, effective July 1, 1959. Recruitment of personnel began. Starting January 12, 1959, statistical data of any type desired by any bureau of the department had to be cleared with

the Bureau of Research and Statistics. In some cases, as was partially true before, the Statistics Division may assume the additional responsibility for actual collection and processing of statistics for other bureaus. Steps were taken to make the county superintendents the liaison coordinators of statistics within the counties (except Philadelphia and Pittsburgh).

State department staff held conferences with local school administrators and representatives of institutions of higher learning to determine an optimum statistical services program. The group made tentative proposals regarding the types of data needed. Departmental meetings and conferences with educational leaders also were held to evaluate various phases of the present program of statistical services.

In reviewing and revising reports, the Statistics Division has used definitions and terminology established in the cooperatively developed national handbooks. Two new supplemental forms to the Superintendents Annual Report were developed to obtain new and advanced data before September 25 of each school year. Such data will include more detailed information on distribution of schools and school building facilities, pupils, teachers, and post-high school activities of the 1969 graduating class of the public schools according to IQ and type of course pursued in high school. Forms also were prepared for collecting nonpublic school data.

The Secondary School Report was revised. More detailed information will be collected at the beginning of the school year. New types of data to be collected will be nonpublic school (non-Catholic) enrollments by grades and number of teachers and grades. Catholic schools will supply enrollments and number of schools some two months earlier than previously. For the first time, data will include number of teachers in Catholic schools.

Plans were made for a transportation study to determine various indices for the cost of transportation. Indices sought will be the cost per pupil per year, cost per mile per year, and cost per hour per year and determined for contract and for district-owned buses. They will further be refined for small, medium, and large buses.

Almost \$8,000 was spent for equipment, including three Marchant calculators and two Friden calculators. Preliminary steps were taken to expand the processing of data by IBM equipment, including mark-sensing. The perpetual inventory of school buildings developed in the past year was set up so that an accurate picture of the school building situation might be obtained with minimum effort through use of punched cards. Teacher information was also being currently maintained on punched cards.

Pennsylvania, for the past several years, has had an inter-departmental committee for State statistics. Steps have been taken during recent months to develop with the Bureau of Statistics of the Department of Internal Affairs more detailed information concerning special taxes and school building authorities. With the State department of revenue, the State department of

public instruction is able to obtain more recent information on State tax collections. The Bureau of Research of the State department of public instruction will utilize standards set up by the committee on sources of data for statistical tables and developing necessary running accounts.

B. FY 1960: Federal funds	\$21,580.46
State funds	21,580.46
Total	\$43,160.92

The Bureau of Research and Statistics continued to coordinate statistical activity for the entire department, acting as a clearing-house for statistics, forms, and standards for reporting. By the end of FY 1960, five professional and four secretarial and clerical persons were employed under the statistical services program.

The department's Bureau of Research continued to work with local school administrators, representatives of institutions of higher learning, the Governor's Budget Office, various committees of the General Assembly, and other interested groups in an effort to determine the types of data needed.

The new secondary school report for 1959-60 was distributed. Information collected included areas of class size by subject, foreign language enrollments, and distribution of high school graduates by IQ according to post-high school activities. An elementary school report was developed for the first time to collect data for 1959-60. Data will include enrollments, number of schools, and size of teaching staff for both public and nonpublic schools.

The bureau acquired its own IBM card punch machine. Plans to utilize the automatic IBM calculator were still in progress. Serious consideration was being given to adding an IBM electronic statistical machine, Type 101, to the department's machine processing equipment. The 1958-59 Annual Financial Reports and the Secondary School Reports were among the forms that were machine processed.

Personnel were being instructed in machine data processing and the operation of electronic equipment. County superintendents in attendance at the first meeting held received instructions for the organization and operation of the County Office Statistical Centers. These centers were in operation during 1959-60. Plans are complete for a series of 11 such meetings to be held across the State during early September 1960.

Current statistical information was disseminated through a new bulletin, the "Calculator," to interested agencies of the Federal Government, other States, and agencies and school administrators within the State.

Other publications distributed included *A Survey of Pennsylvania's Public School Buildings in 1958*, *Selected Statistics for Pennsylvania Public Secondary Schools* (a summary of some of the information compiled from the Secondary School Reports), and *Mathematics, Science, and Foreign Languages in Pennsylvania Public Secondary Schools, 1958-59*.

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PUERTO RICO

- I. Official Agency: Department of Education, Commonwealth of Puerto Rico
- II. Administered by: Director, Division of Statistics  
Director, Division of Finance  
Director, Division of Personnel  
Director, Division of School Planning
- III. Effective Date: Sept. 23, 1959
- IV. General Policies and Purposes

- A. Improve record forms and processing of teacher personnel records.
- B. Improve reporting forms and processing and dissemination techniques for information pertaining to the day, adult, and vocational schools.
- C. Revise and improve the financial accounting system.

V. Proposed Program

*Improvement of Statistical Services of the Department of Education of the Commonwealth of Puerto Rico*

- A. Improvement of record forms and record processing of staff personnel records in the department of education.
  1. Department of education review of the data on personnel being collected at present.
  2. Conferences with department officials regarding the adequacy of present data.
  3. Determination of extent to which existing data when adequately processed will supply the need for information on personnel.
  4. Mechanical processing of data for the above purpose.
  5. Modification of present forms or development of new ones which will facilitate obtaining additional data and/or speed up existing procedures.

It will be necessary to rent mechanical equipment to expedite the processing and handling of statistical data including key punch machines, verifier, etc.
- B. Improvement of reporting forms for the day, adult, and vocational schools and improvement of the processing and dissemination of the data.
  1. Collection and study of all reporting forms now in use.
  2. Conferences with offices sending out the various reports to find out their needs for these data and their opinions of the adequacy of existing forms.
  3. Conferences with officials of department using these data regarding the adequacy of present statistics and their needs with respect to data not now being collected.
  4. Review of the existing forms in the light of the above findings and of needs of outside users as determined by their inquiries and requests.
  5. Modification of existing forms or development of new ones which will meet these needs and as far as possible be adapted to mechanical processing.

6. Development of new school register.
7. Rental of necessary mechanical equipment to expedite the processing and handling of statistical data, including key punch machines, verifier, statistical machine, reproducer, collator, etc.

This activity will involve consultations with local school people and their orientation when the new forms and register are available. Consultants will also be employed as necessary.

Travel and per diem expenses will be paid to staff members in their visits to the districts and to local personnel when it is necessary to call them to the central office for purposes of consultation.

C. Improvement of the financial accounting system.

1. Analysis of items required in Handbook I and the accounts set forth in Handbook II.
2. Analysis of accounts in the present system of the department.
3. Determination of the new accounts required to meet the needs of the national handbooks.
4. Development of a local handbook incorporating these items.
5. Purchase of machines to facilitate implementation of new systems, the cost of the machines to be prorated in terms of the extent to which they are used for processing and analyzing financial statistics.

This activity will have to be carried out in consultation with the Puerto Rico Treasury Department. It will be necessary to secure the services of a consultant from that department at least on a part-time basis.

VI. Implementation of Program

A. FY 1959:	No program in operation.	
B. FY 1960:	Federal funds	\$ 8,755.52
	State funds	8,755.58
	<b>Total</b>	<b>\$17,511.05</b>

Two positions, one of statistician IV, the other of general supervisor III, were transferred to the division on July 1 and the persons holding these positions were assigned to work on title X activities. A new position, statistician III, was also added during the year.

Reporting forms were studied to determine the extent to which they meet local needs and those of Handbook I and the Biennial Report of the U.S. Office of Education. Final report forms of local superintendents were revised with this end in view and for the first time will incorporate the concept of E<sup>1</sup> and E<sup>2</sup> in the reporting of original enrollment.

A new school register was developed for the purpose of improving local record keeping and the implementation of standard terminology.



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The Division of Statistics was designated to coordinate all statistical services in the department. Conferences were held with heads and personnel of the other divisions for the purpose of helping them improve their statistical forms. Assistance was also provided them in certain statistical procedures, such as the selection of samples and the tabulation of data.

A pilot project was conducted in five selected school districts for the preparation and tryout of statistical forms adapted to machine processing. These forms were designed for the collection and processing of pupil data, employed personnel data, and work assignments for employed personnel.

### RHODE ISLAND

- I. Official Agency: State Board of Education
- II. Administered by: Assistant Commissioner for Research  
Deputy Commissioner  
Senior Department Business Manager
- III. Effective Date: Jan. 20, 1959
- IV. General Policies and Purposes
  - A. Create a new organization within the State department of education to be responsible for all of the statistical services provided or to be provided by the State.
  - B. Reassess the purposes to be served by the collecting, processing, interpreting, and disseminating of data related to the needs of a modern educational program.
  - C. Improve the collection, processing, analysis, reporting, and use of statistical data supplied by local educational units.
  - D. Develop accounting and reporting manuals to serve as guides for local educational units.
  - E. Conduct conferences and training programs for personnel of the State and local educational units and periodically review and evaluate these activities.
  - F. Improve methods for obtaining from other agencies educational or related data not collected by the State education agency.
  - G. Expedite the collection, processing, analysis, and reporting of statistical data through installation and operation of mechanical equipment.
  - H. Review and evaluate periodically the State statistical services to determine ways in which further improvement can be made in such services.
  - I. Broaden the base of usefulness of educational statistics and statistical services in Rhode Island by seeking guidance, information, and cooperation from other similar agencies, including the Federal Office of Education, and with the realizations that (1) correlational studies and other uses of statistical data can be enhanced by the deliberate extension of range; (2) variation in legal structure can apply a needed discipline in statistical definition work; and (3) ideas and methods developed in one context

can be transferrable to others. (The Research Offices of Rhode Island and New York have reached tentative agreements, which have been formalized by the Rhode Island State Board of Education at their December 1958 meeting, on the interlocking of studies and the exchange of information. Thus proposals contained in this plan have a definite relationship to proposals made under title X by the State of New York. Similar cooperation is being sought with other Northeastern States.)

- J. Develop and carry out a plan for collecting, verifying, processing, analyzing, interpreting, reporting, and disseminating data and for improving the accuracy and validity of such data and its processing as will permit the State education agency to present, within the proposed program, a more complete picture of conditions and progress of education in Rhode Island and to develop more efficient and more valid financial and educational procedures.

#### V. Proposed Program

##### *Improvement of Statistical Services in Rhode Island*

- A. Create a new organization within the State department of education to carry out the intent of the program to improve statistical services.
  - 1. Organize the State's local units into geographical groups and design an advisory committee of school superintendents to work in close cooperation with State department staff to implement the program.
  - 2. Provide new staff and facilities for the positions that are created.
  - 3. Provide inservice training to speed the effective utilization of this new agency.
- B. Improve the collection, analysis, and reporting of statistical data supplied by local educational units.
  - 1. With the aid of a superintendent's advisory committee and consultants, and in cooperation with other agencies, conduct a survey to determine what raw data, analyses, and studies are needed to satisfy current needs in the field of education.
  - 2. Review and evaluate present program of record and report forms in the light of survey findings to determine adequacy, clarity, and ease of processing. Revise old forms or develop new forms to satisfy requirements determined.
- C. Develop accounting and reporting manuals to serve as guides for local educational units.
  - 1. Organize a superintendent's advisory committee.
    - a. To study, review, and evaluate the property accounting handbook issued by the U.S. Office of Education in the light of Rhode Island's needs and prepare a property accounting manual for Rhode Island if this is needed.
    - b. To study the personnel, pupil, and financial accounting systems used in Rhode Island, and to

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prepare a manual and all necessary record and report forms.

- D. Conduct conferences at the State level and training activities at the local level to instruct personnel at local levels in the interpretation and use of financial, property, and personnel accounting manuals and proper completion of all record report forms used in connection with these.
- E. Improve methods for obtaining and utilizing from other agencies data pertinent to education in Rhode Island but not collected by the State education agency.
  - 1. Determine what pertinent information can be secured from other agencies and develop procedures for its collection.
  - 2. Prepare any necessary reporting forms.
  - 3. Use consultative services.
- F. Expedite the processing and reporting of statistical and other educational data through installation, rental, and operation of mechanical, electrical, electronic, and other equipment.
  - 1. Survey facilities now available at the State level for mechanical and electronic processing of data in relation to current operations in the State education agency and to expansion of such operations.
  - 2. Install, rent, or contract for such additional equipment or services to expedite the processing and reporting of statistical data.
- G. Develop methods and means of organizing and maintaining statistical and other records and reports in order to expedite and render them more useful for processing, reference, and research purposes.
- H. By reappraisal of the data being collected, determine what techniques can be evolved and employed to generate estimates and projections of use to education agencies at the local, State, and Federal levels. (This will be a continuous process and will require consultative services.)
- I. After initial studies of need, means, and methods have been made, evaluate periodically, as needed, the status of the statistical services program to maintain it at the desired level of usefulness and to adjust it to changing conditions.

**VI. Implementation of Program**

A. <i>FY 1959</i> : Federal funds .....	\$21,286.56
State funds .....	21,286.56
Total .....	\$42,573.12

A whole new division devoted to improving statistical services was built into the State department of education. Formally approved in fiscal 1959, additional staff was hired, effective July 1, 1959. In the reorganization plan, the statistical gathering, processing, and dissemination of all departments will flow through this new division. Machine processing arrangements were made with the machine tabulation section of the State administration department to use its machinery, starting July 1,

1959, for processing data for the department of education. Fifty thousand IBM cards and control panel boards for IBM 402, 077, 514, and 101 machines were purchased.

B. FY 1960: Federal funds .....	\$33,886.82
State funds .....	83,886.82
Total .....	\$67,773.64

The newly organized Division of Research and Planning was staffed with an assistant commissioner, a supervisor of quality control, and six clerical personnel. For about half of the year, eight consultants were retained on a regular basis and other consultants on a per diem basis. Activities of this division have undergone extensive evaluation.

Early in the fiscal year, the staff of the division was engaged in collecting all pertinent forms and data needed to evaluate the present statistical services. These forms and data were turned over to consultants for their evaluation. Several major changes in the approach to statistical data collection, processing, evaluation, and dissemination have resulted from their analyses. This will be a continuing activity.

The division used the State's Data Processing Center for data processing services as contractually arranged and also acquired a 101B IBM electronic statistical sorter housed in its own facilities. Major changes were made in the organization and maintenance of source documents, record processing forms, and tabulating cards. The department purchased and made available to the division an offset press, a photocopy machine, a headliner, and new typewriters.

Under the direction of the statistical services staff, major changes were made in the State school support programs. Terminology employed was designed to facilitate the use of the "Common Core Handbook" definitions. These changes resulted in new statistical forms, and the regulations concerning submission of data by local school systems to the State were changed. For the first time, data dealing with school housing facilities were collected and processed on tab card equipment. The dissemination of these data resulted in Rhode Island's first foundation-supported legislation for school housing.

An extensive sampling project dealing with high school data was also undertaken. It was planned to continue this activity during the next fiscal year.

## SOUTH CAROLINA

- I. Official Agency: South Carolina State Board of Education
- II. Administered by: State Superintendent of Education
- III. Effective Date: June 22, 1959
- IV. General Policies and Purposes

- A. Eliminate, where possible, data that is obsolete or duplicated.

- B. Provide additional educational data as needed.
- C. Secure more current, accurate, and uniform data.
- D. Improve the collecting, analyzing, reporting, and disseminating of data.

**V. Proposed Program**

*Development, Expansion, and Improvement of the Collecting, Analyzing, Reporting, and Disseminating of Educational Data by the South Carolina State Department of Education*

- A. Evaluate the present statistical services program.
  - 1. Make a complete analysis of present statistical services to determine:
    - a. Duplication of data.
    - b. Data now being collected but which need not be collected.
    - c. Data not now collected but which should be collected.
    - d. Extent of need for coordination of statistical services program.
    - e. Strength and weaknesses of the methods of verifying and processing data.
    - f. Method used in analyzing data and the degree to which data are analyzed.
    - g. Extent and effectiveness of present dissemination procedures and practices.
    - h. Recommendation for improvement of statistical services program.
  - 2. Form a State advisory committee to assist in the study of the existing program.
- B. Improve and expand reporting forms, handbooks, manuals, and aids as guides for local public school districts, other educational agencies, other agencies, and individuals.
  - 1. Study all present reporting forms and accounting system.
  - 2. Make revisions according to identified needs determined by the evaluation.
  - 3. Devise new form for obtaining data.
  - 4. Develop cooperatively with local public school districts, handbooks, manuals, and aids.
  - 5. Encourage, through conferences and workshops, the general use of the handbooks, manuals, and guides.
- C. Improve the reporting, collecting, verifying, processing, analyzing, and interpreting of educational data.
  - 1. Study the present system of State collection, verification, processing, analysis, and interpretation of statistical data.
  - 2. Make revisions according to identified needs determined by the evaluation.
  - 3. Study converting from hand processing to machine processing of data. (Consult with educational and other agencies in and out of the State about the improvements contemplated with respect to this activity.)

4. Conduct conferences and training programs to improve procedures used in connection with this activity.
- D. Improve dissemination of educational data.
  1. Study present system of State dissemination of statistical data.
  2. Revise and expand dissemination procedures according to identified needs determined by the evaluation.

#### VI. Implementation of Program

A. FY 1959: No program in operation.	
B. FY 1960: Federal funds .....	\$18,016.23
State funds .....	18,016.24
	\$36,032.47

One machine operator and one statistician were added for the expanded work in statistical services. Additional part-time personnel were also used for the verification of data and for the improvement and expansion of the dissemination of educational information.

Machine processing applications were expanded; a 403 accounting machine and an 088 sorter were added to the data processing equipment. A master punch card was developed for each teacher in the State in order to provide basic records on amount of training, subject matter assignment, and qualifications.

The State Superintendent's Annual Report, one of the principle means of disseminating educational data, was enlarged and revised in order to give more specific data regarding the individual school districts.

A new attendance register was developed, published, and distributed to all schools. The pupil accounting system prescribed in this register will make a valuable contribution toward the implementation of Handbook I in the State of South Carolina.

Staff members have become aware of the need for a complete evaluation of the statistical services program and are studying possible improvements as they relate to their respective divisions.

During the year, 6 conferences were conducted for State agency personnel and 22 conferences were conducted for local personnel. The majority of these conferences were in connection with the new teachers' attendance register.

## SOUTH DAKOTA

- I. Official Agency: State Board of Education
- II. Administered by: Superintendent of Public Instruction  
Consultant on School Administration and Law
- III. Effective Date: Feb. 3, 1959 (amended June 27, 1960)
- IV. General Policies and Purposes
  - A. Implement the cooperatively developed national handbooks.
  - B. Provide for conversion to a system of electronic and mechanical data processing.

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- C. Provide for the use of consultants and advisory committees in the improvement of statistical procedures and services.
- D. Establish regional offices in order to give services to local districts in accounting and reporting.

V. Proposed Program

*Improvement, Addition, Revision, and Expansion of the Statistical Services and Reporting Systems of the State Department of Public Instruction so as to Facilitate the Collection, Processing, Analysis, Dissemination, and the Use of Such Data*

- A. Implement the use of electronic machines and other mechanical equipment.
- B. Establish three regional offices throughout the State for department administrative personnel to render services in school finance, accounting, and statistical records and reports.
- C. Implement for standard use the cooperatively developed national handbooks heretofore not adopted in the State of South Dakota.
- D. Provide inservice training for department administrative personnel for purposes of specialization in subject fields directly related to the improvement of statistical services.
- E. Provide for a statistical staff adequate in size and qualifications so that effective planning, collecting, processing, analyzing, interpreting, and disseminating of educational data can be efficiently accomplished.

VI. Implementation of Program

A. <i>FY 1959</i> : Federal funds .....	\$483.96
State funds .....	609.43
Total .....	\$1,093.39

Activities were initiated on the evaluation and improvement of coordination of statistical services. Reporting forms were evaluated and revised to eliminate unnecessary duplication.

Work was started on the development of two State handbooks for the implementation of standard terminology.

Local conferences and workshops were held in connection with revision of the uniform financial accounting system.

B. <i>FY 1960</i> : Federal funds .....	\$6,081.21
State funds .....	6,834.57
Total .....	12,915.78

Additional personnel were employed for a portion of the fiscal year. Work was continued on the evaluation of statistical services.

A new financial accounting system was adopted in conformity with Handbook II. This system was introduced throughout the State by local and regional workshops.

A new *Dictionary of Educational Terms* was prepared for publication.

A tentative order was placed for rental of a card keypunch machine.



## TENNESSEE

- I. Official Agency: Tennessee State Board of Education
- II. Administered by: *Program A:* Area of Statistical Services, under the Direction of the Director  
*Program B:* Division of Finance and Administrative Services
- III. Effective Date: Dec. 23, 1958
- IV. General Policies and Purposes
  - A. Evaluate present statistical services through an analysis of the types of educational data now collected and an appraisal of the present procedures of collection and tabulation and the use now being made of these data.
  - B. Eliminate duplications in data collected, supplement present data collected with other data needed, and improve the forms, procedures, and techniques for collecting, analyzing, and disseminating educational information.
  - C. Provide for continuous coordination and evaluation of all statistical services rendered by the State department of education.
- V. Proposed Program
  - Program A: A Program for the General Improvement of Statistical Services*
    - A. Evaluate types of educational data now collected.
    - B. Appraise present procedures of collecting and tabulating data.
    - C. Evaluate the use now being made of data collected and tabulated.
    - D. Revise reporting procedures and forms to eliminate duplication, to avoid collection of data that is no longer useful, to supplement present data collected with other data needed to show more clearly the conditions and problems of education, and to adapt data collected, where feasible, to machine tabulation.
    - E. Improve procedures and techniques for analyzing and disseminating information through the use of machines and installation of electronic or other data processing equipment.
    - F. Establish a central statistical area to serve as a coordinating agency for all areas collecting educational data, to assist other areas in tabulations and analyses needed for the administration of the State's program of operation and to show more clearly the conditions and problems of public education in Tennessee, and continually to evaluate the State department's program of statistical services.
    - G. Inaugurate a planned program of inservice training for all pertinent personnel in the State department of education.
    - H. Inaugurate a program of inservice training and additional field service for personnel at the local level responsible for reporting educational data to the State department of education.
    - I. Develop manuals of instruction to aid personnel engaged in statistical services at the local level.
    - J. Improve the quality and expansion of the types of publications now produced by the department to disseminate educational information.

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*Program B: Inaugurating and Maintaining a Revised Uniform System of Financial Budgeting, Accounting, and Reporting for Local School Systems in Tennessee*

- A. Revise present budget and reporting forms prescribed for use of local school systems.
- B. Inaugurate a planned program of inservice training for staff members of the Division of Finance and Administrative Service.
- C. Establish pilot situations in local school systems to try out the proposed revised financial accounting systems.
- D. Inaugurate and expand program of inservice training for personnel at the local level responsible for administration of the proposed revised system.
- E. Develop procedural manuals for use inaugurating and maintaining the revised financial budgeting, accounting, and reporting system.
- F. Expand and improve the quality of publications now used by the department to disseminate financial data.

VI. Implementation of Program

A. FY 1959: Federal funds .....	\$42,676.68
State funds .....	42,676.67
Total .....	\$85,353.35

In just a little over 3 months after the NDEA was passed, Tennessee's State plan for improving statistical services was approved and underway. First of all, an area of statistical services was established in the State department of education, and by the end of FY 1959, a director and a supervisor of this division had been appointed and one principal stenographer employed. Each division of the department was evaluating its own statistical services, and the area of statistical services was doing a separate evaluation of department-wide statistical services. Each division head had established the major needs in his division for help in statistical services; thus the needs of all the divisions were being correlated into the reorganization of statistical services. A thorough evaluation of data-gathering forms and a revision of such forms as deemed necessary were major steps in coordinating statistical services.

The financial accounting system for local schools was revised. This revision was made according to recommendations by the National Committee on Governmental Accounting and in accordance with Handbook II.

Printing specifications for all items necessary to these accounting changes were drawn, bids on printing received, and a purchase order made ready for the next fiscal year.

State personnel were writing a handbook for local schools to use in revising their financial accounting systems. Preliminary drafts of this handbook had been checked and authorization for final draft had been given. Staff members were also working on

a handbook for the use of local school personnel in preparing data for machine tabulation and analysis. Section one of this handbook on coding procedure for Personnel Record Form -2 was in rough draft form.

Before title X, no attempt had been made to adapt any data collected to machine accounting. But just six months after Tennessee's plan was approved, over \$74,000 was spent on machine tabulating equipment. (This was approximately 87 percent of the total expended in FY 1959.) Qualifications for personnel to operate this equipment had been established. Basic forms and cards had been designed to use in machine processing of teacher data. Also, basic forms had been developed for use in compiling school housing statistics.

Personnel in two divisions were participating in an inservice program concerning development of record forms and tabulation of data by machine. One division was holding inservice meetings to improve budgeting procedures in local school systems. Conferences with individuals at the local level had been held. A core of personnel for conferences and workshops was being developed from these individual conferences.

B. FY 1960: Federal funds	\$39,279.64
State funds	39,279.63
Total	\$78,559.27

The following personnel were added to the area of statistical services: one tabulating machine operator, two key punch operators, and three temporary code clerks.

The evaluation of statistical services was carried on as a continuing process. New data collecting instruments were developed; old data collecting instruments were revised; and data collecting forms of similar purpose were integrated. Impetus was given to the reevaluation of statistical services of the various divisions of the Tennessee State Department of Education.

Handbook I served as a guide to bring the terminology of statistical data into conformity with generally accepted terminology throughout the Nation. Program B of the State plan was carried forward during the fiscal year to the extent that much progress was made in revising the financial accounting systems of local school districts. These revisions emphasize the adoption of standard financial terminology as set forth in Handbook II.

Additional punch card equipment was purchased and high speed processing and computing equipment was rented during the fiscal year. Data concerning teachers, principals, salaries, school plant facilities, and course offerings were adapted to machine processing techniques. Plans were made for a pilot project in the fall of 1960 under which teachers would use mark-sense cards to provide basic teacher data, class size, and pupil enrollment by class.

Inservice training in basic machine procedures was provided for all members of the State department of education. Inservice meetings were held in local school systems for the improvement of budgeting and accounting practices.

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TEXAS

- I. Official Agency: Texas Central Education Agency
- II. Administered by: Division of Research  
Business Office  
Data Processing Division  
Division of School Audits

III. Effective Date: Jan. 6, 1959

IV. General Policies and Purposes

The overall goal of the statistical services of the Texas Education Agency is to improve the 2-way avenue along which essential, accurate information will flow in for processing and use, then flow out in a form usable for planning and decision making. In order to achieve this goal, the following undergirding elements must be taken into account:

- A. The accuracy and completeness of a report must be verified.
- B. The speed with which data is processed and disseminated must be increased.
- C. The efficiency of the data gathering process with a resulting elimination of duplicated efforts must be increased through cooperation.

V. Proposed Program

*Improvement of Statistical Services in Education in the  
Texas Education Agency*

- A. Implementation of a uniform budgeting, accounting, and auditing system to improve fiscal and school property accounting within local school districts.
  - 1. Prepare a budgeting, accounting, and auditing manual keyed to the terminology of Handbook II.
  - 2. Hold training conferences for accounting and reporting personnel.
  - 3. Add personnel to the business office to service auditing of reports.
  - 4. Provide for a continuous evaluation and revision of manuals as needed.
- B. Improvement of the processing, analyzing, and interpreting of data.
  - 1. Provide additional computer facilities and necessary personnel. (Plans call for the addition of a Univac 120 Computer, additional key punch equipment, sorters, and collators. Personnel will be added as needed to service the operations.)
  - 2. Convert procedures for processing certain data to machine operations.
    - a. Professional personnel data, verified and converted onto punch cards, will be received from the Division of Finance for statistical analysis. Analysis of data will provide for relating professional personnel characteristics (such as major duty assignment, experience, tenure, sex, race, professional training, and salary) to various characteristics of local school districts.

- b. Pupil accounting data forms will be revised in order that they may be read easily by key punch operators, who will convert the information onto punch cards for computer processing.
  - c. Pupil-characteristics data in the form of scores received on certain standardized tests given to secondary pupils throughout the State will be submitted by each local district to the Division of Research by the way of standardized information forms. Information submitted will consist of educational achievement test scores, aptitude test scores, and mental ability test scores along with certain other pupil characteristics such as age, sex, and grade placement. These data will be converted on punch cards for processing through the electronic computer facilities.
  - d. Fiscal data reported on official budget forms and audited by the business office will be converted onto punch cards for computer processing. Analysis of data will provide for relating items of fiscal information to various characteristics of local school districts.
  - e. The annual Accreditation Report will be extended to include nonpublic, trade, and technical schools. The format of this report will be revised and expanded in order to provide for statistical processing, increased information about curriculum characteristics, courses of study, teaching materials, and pupil progress in each school. These data will be converted onto punch cards for processing through the electronic computer facilities.
- C. Establishment of a uniform system of pupil accounting for all local districts.
1. Develop and publish a pupil accounting manual keyed to the terminology of Handbook I.
  2. Hold conferences with representative groups of administrators to evaluate the first draft of the manual and recommend revisions.
  3. Add such consultative personnel as needed to the Division of Research.
  4. Conduct a program of training conferences in the area of pupil accounting. Consultants will be available for in-service training conferences in local school districts and teacher training workshops in the colleges and universities of the State.
- D. Determining the organization within the Texas Education Agency for collecting, processing, and disseminating data.
1. Prepare a procedural handbook, keyed to the terminology of Handbooks I and II, for use by agency personnel.

2. Conduct a survey to classify the kinds of data collected and the frequency with which it is collected by the various administrative units within the agency.
3. Survey and evaluate various systems of cataloguing data.
4. Develop the optimum organizational structure to establish a central control system for all public information and records received and stored under the auspices of the Texas Education Agency.
5. Add necessary personnel to the Division of Research in order to maintain a central file of statistical data relating to public school education in this and other States. These data will be organized to facilitate specific requests for information by agency personnel and outside requests. The efficiency of the cataloguing and filing system will be tested by a pilot project in which school superintendents and agency personnel will be invited to make requests.

**VI. Implementation of Program**

A. FY 1959: Federal funds .....	\$14,271.30
State funds .....	14,271.29
Total .....	\$28,542.59

The activities under part A of the plan, intended to improve fiscal and property accounting in local school districts, began with a series of conferences held for the purpose of formulating a basic system of school accounting applicable at the local school level. These conferences were staffed by local school administrators, licensed public accountants, selected people from professional organizations, and staff members from the Texas Education Agency. The system of accounting formulated by the committee provided for uniformity of terminology keyed to Handbook II, in order that fiscal information would be comparable among all districts, and procedures could be set up to verify the financial operations of a given local district.

The basic system as set forth by the committee was developed into an organized procedure by the staff of the Texas Education Agency. After the details of the operation of the system were worked out, it was then necessary to acquaint the administrators at the local level with the new system. In order to accomplish this, exhibits and teaching aids were prepared and teams of consultants from the Texas Education Agency held a series of area training conferences. A tentative draft of a manual for school finance was then prepared by the staff and distributed to all local school administrators. After a pilot trial, necessary revisions were made in order to eliminate obvious weaknesses.

Senior auditors in the School Audit Division provided consultative services to the individual school districts as problems arose in the process of revamping and upgrading fiscal accounting procedures.

Part B of the plan provided for improvement of the processing of statistical data through additional equipment, changes in forms and procedures, and the increased personnel. The electronic computer facilities in the Texas Education Agency prior

to this program were scheduled to the maximum extent with line programs, i.e., program servicing financial obligations to local school districts. This program provided funds to expand the electronic computer facilities and personnel to service the statistical data program. With this purpose in mind, the Texas Education Agency increased its equipment by adding another Univac 120 Computer and one additional collator.

A committee was set up to coordinate the processing of data through the Machine Records Division. This procedure provided a system of coordination which insured the processing of statistical data on schedule. Several of the existing information forms were revised in order to facilitate any punching. In some cases the information forms were expanded in order to obtain needed data. As of June 30, 1959, the following types of information were processed through the electronic computer facilities: professional personnel data, fiscal data, pupil accounting data, and school plant data.

The statistical processing of these data consisted of various groupings of the data items to provide gross multipurpose statistics. In addition to the multipurpose statistics, decks of cards which summarized each type of information for each school district were prepared. These summary cards provided a means of processing data according to unique specifications which give extreme flexibility through the statistical program.

A new Univac 90 Computer was placed on order and the scheduled installation of this equipment necessitated a training program for certain key personnel within the agency. The training program was scheduled for 15 full days with an enrollment of 10 persons.

The project on pupil accounting (part C) began with a series of preliminary exploratory conferences. These conferences were staffed by persons with recognized competencies from the fields of business, industry, psychology, and education. The responsibility for coordinating the development of this program was assigned to the Research Division. In order to service this area, a professional level position of supervisor of child accounting and a stenographic level clerk were added to the existing staff of the Research Division.

From these conferences came a proposed rationale for establishing certain basic pupil characteristics. It was specified that the record of these pupil characteristics should: (1) provide essential knowledge about the pupil to those who must provide for his day to day educational experiences; (2) provide a permanent record of the pupil's characteristics and his interaction with the school program. This kind of record could be utilized by prospective employers and college admission officers to help assess the pupil's potential in a given field of endeavor.

The staff of the Research Division, under the leadership of the supervisor of child accounting, was engaged in developing the ideas presented by the committee into a comprehensive organized system. Upon completion, this tentative system will be reviewed by one or more committees and necessary revisions will be made.



After the revisions have been made, a tentative procedural handbook will be developed as a guide for all local school administrators.

In order to provide an effective program for collecting, processing, and disseminating data (part D), it was necessary to establish a coordinated plan of operation. To effect this plan, it seemed feasible to assign the responsibility for the administration of a major portion of the informational services and the overall coordinating of the program to the Division of Research, with responsibility for administrating certain aspects to other units.

The first step was a careful analysis of all scheduled informational forms originating in the Texas Education Agency to ascertain the types of information collected by the various departments. The discrete items shown by this survey were then catalogued for ready reference to be used by the Research Division in providing consultative services to other agency divisions in the construction of information instruments to insure against duplication of information requests.

To insure the availability of continuing data, authority for the final disposition of all public records also rests within the Division of Research.

A central file of research and statistical data relating to public school education in this and other States was established. The operation of this type of file necessitated the development of a sophisticated system of data banking and retrieval. The prototype of such a system, which utilizes electronic sorting equipment to search for information according to specification, has been developed and put into operation. The organizational plan provides for the banking and retrieval of such incidental or nonscheduled information as determined significant by the professional staff. A professional level data analyst and a clerk analyst have been added to the Research Division staff in order to service the data banking system.

A tentative draft of a procedural handbook for use within the Texas Education Agency was under development. This handbook provides a framework of policies, rules, and regulations and can be followed by agency personnel in procedures of collecting, processing, and disseminating information. In order to promote uniformity in the processing of forms and records, the handbook will provide for the use of standard educational forms, definitions, and measures as contained in the cooperatively developed national handbooks.

B. <i>FY 1960</i> : Federal funds	.....	\$40,062.36
State funds	.....	40,062.37
		<hr/>
Total	.....	\$80,124.73

Under part A of the plan, each local school district submitted an audit report made by an independent licensed or certified public accountant. Each report was examined by a member of the Texas Education Agency staff to determine if the necessary statistical information was included and if the district was

maintaining a satisfactory accounting system. Districts were notified of discrepancies in procedures, with suggestions for improvement. The audit report was compared with the official school district budget to determine if proper budget amendments where made were necessary. This procedure insured that all fiscal data used by the Research Division for its reports and research were correct and not mere estimates.

Members of the field audit staff of the agency, the agency business manager, the assistant commissioner for administration, and other staff members continued their consultative services to local school administrators and independent auditors in assisting with the installation of standard fiscal accounting systems.

Under part B, a Univac Solid State 90 Computer was installed in January 1960. This has increased the facilities for machine processing of data received by the agency. Consequently, existing statistical procedures were being reevaluated and reorganized. An agencywide research committee was making a detailed study of all data available in the agency and how it was being used to determine what the basic statistical program should be. Once the basic program is determined, each segment will be described and/or flow charted from the initial reception of the pertinent data in the agency to the completion of processing by the Data Processing Division.

Inservice training programs were completed for personnel with machine programming possibilities.

Professional personnel data was machine processed both for financial and statistical purposes. Data from the testing program under title V were machine processed to develop Texas norms for the standardized tests given and to furnish specific information to local school systems on their own students.

Fiscal data from the 1958-59 audit reports were card punched and partially processed. All report forms, such as the Superintendent's Annual Report and professional personnel and pupil personnel forms, were reexamined and made more definitive in order that machine processing might be expedited.

As one of its responsibilities for coordinating, processing, and disseminating information, the Division of Research developed a data banking and retrieval system. This program increased the division's ability to furnish information to other agency offices, the State board of education, the State legislature, local school districts, colleges and universities, and professional organizations.

Under part C, portions of the first draft of a pupil accounting manual were prepared and are in process of revision. Members of the field audit staff worked with numerous school district administrators in developing central attendance accounting systems. The child accounting specialist visited 15 college campuses to work with prospective teachers on child accounting practices.

Part D of the plan was being implemented by the special agency committee which met regularly to determine the basic statistical and research program and to place the program in

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written form. Emphasis was given to the keying of statistical information to the terminology used in Handbooks I and II.

### UTAH

- I. Official Agency: State Board of Education
- II. Administered by: State Superintendent of Public Instruction
- III. Effective Date: Feb. 26, 1959

#### IV. General Policies and Purposes

- A. Eliminate, where possible, data that is obsolete or that is a duplication.
- B. Provide additional educational data as needed.
- C. Secure more current, accurate, and uniform data.
- D. Improve the collecting, analyzing, reporting, and dissemination of the data collected.

#### V. Proposed Program

*Development, Expansion, and Improvement of the Collecting, Analyzing, Reporting, and Disseminating of Educational Data by the Utah State Department of Public Instruction*

- A. Evaluation of the present statistical services program.  
A State advisory committee will be formed to assist in the study of the existing statistical services program. This advisory committee will consider:
  - 1. The kinds, frequency, and extent of the data now collected.
  - 2. The reporting, verifying, processing, analyzing, and dissemination of data now collected.
  - 3. The extent of the use of Handbooks I and II.
  - 4. The present organizational and staffing arrangements of the statistical services program.
  - 5. Recommendations for the improvement of the statistical services program.
  - 6. A procedure for continuing evaluation of the operation of this State plan.
- B. Improvement and expansion of reporting forms, handbooks, manuals, and aids as guides for local public school districts, other educational agencies, other agencies, and individuals.  
All present State reporting forms and accounting systems will be studied. Revisions will be made according to identified needs determined by the evaluation. Handbooks, manuals, and aids will be developed cooperatively with local public school districts, other educational agencies, and other agencies and individuals. Conferences and workshops will be used in the development and encouragement of the general use of the handbooks, manuals, and aids.
- C. Improvement of the reporting, collecting, verifying, processing, analyzing, and interpreting of educational data.

The present system of State collection, verification, processing, analysis, and interpretation of statistical data will be studied. Revisions will be made according to identified needs determined by the evaluation.

Conversion from hand processing to machine processing of data will be studied and will be put into effect where possible. Educational and other agencies in and out of the State will be visited for the purpose of consultation and study of improvements contemplated with respect to this activity.

Conferences and training programs will be conducted to improve procedures used in connection with this activity.

D. Improvement of the dissemination of educational data.

The present system of State dissemination of statistical data will be studied. Revisions and expansions will be made according to identified needs determined by the evaluation.

VI. Implementation of Program

A. FY 1959: Federal funds .....	\$2,361.07
State funds .....	2,361.07
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Total .....	\$4,722.14

The positions of director of research and research secretary were increased from half-time to full-time positions. Although they had other duties in addition to those in statistical services, a considerable portion of their time was spent on activities under this program. In addition, an assistant director of research and another secretary were employed half-time, beginning July 1, for the purpose of carrying out machine data processing operations under the provisions of the State plan. Thus the equivalent of two new positions were added, one professional and one clerical.

An advisory committee was established for the improvement of statistical services and has been engaged in evaluating the present program determining an optimum program, and improving coordination.

An inservice training program was initiated through a workshop for school business managers. Five representatives from different divisions of the State department attended a 1-day forms improvement workshop, and this activity is being followed up by inservice activities for continued improvement of the organization and maintenance of data.

Commitments were made with one city school district and one rural school district for school census pilot projects. The State department prepared punch cards for their annual school census and machine processed the data after it was collected by the enumerators.

B. FY 1960: Federal funds .....	\$ 7,692.24
State funds .....	7,692.23
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Total .....	\$15,384.47

A continuous project for determining optimum statistical services was in process throughout the year. A departmental

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evaluation of statistical services was completed. Through this evaluation and efforts to improve the statistical program, better coordination between departments has resulted.

The Common Core and the Uniform Financial Accounting Manuals were adopted and implemented. The Uniform Property Accounting Manual was adapted for use in the local districts of Utah and standard site and building record forms were developed.

### VERMONT

- I. Official Agency: State Board of Education
- II. Administered by: Director, Division of Educational Planning
- III. Effective Date: June 17, 1959
- IV. General Policies and Purposes
  - A. Improve the collection, analyses, and dissemination of pertinent local, State, and national statistical information regarding the conditions and needs of all the educational programs for which the State department of education assumes responsibility or in which it participates.
  - B. Provide additional statistical studies of the educational system of Vermont through expansion, revision, and addition of areas not now satisfactorily covered for:
    1. Improvement of the collection, analysis, and reporting of curriculum statistical data supplied by local educational units.
    2. Development of accounting and reporting manuals to serve as guides for local educational units in the implementation of the cooperatively developed national handbooks.
    3. Conducting conferences and training for personnel of local educational units in the preparation of records and reports.
    4. Periodic review and evaluation of the program of records and reports.
    5. Improved methods of obtaining from other State agencies, educational and other pertinent data not now collected by the department.
    6. Expediting the reporting and processing of statistical data through installation and operation of mechanical or electronic equipment.
  - C. Provide pertinent and current facts and figures on the operation of the public school system of Vermont, to be used as a basis for:
    1. Evaluating present programs of education.
    2. Research and projection of improvement in the educational program of the State.
    3. Supplying complete and comparable data for use of the U.S. Office of Education, the several State departments of education, universities and colleges, organizations, and interested lay citizens.

**V. Proposed Program***Improvement of Statistical Services of State Department  
of Education*

- A. Analysis and evaluation of the present statistical services program and reporting forms.
  1. Use the services of consultants and of committees made up of school administrators, teachers, business officials, and other personnel having a particular competence for the work being undertaken.
  2. Hold workshops and confer with local school superintendents and others on the most desirable statistical services program for the State department of education.
  3. Analyze and evaluate the present statistical services program and the reporting forms now in use, to:
    - a. Discover duplication.
    - b. Determine time when information is available and when it is needed.
    - c. Simplify forms.
    - d. Discover necessary information not now being gathered.
    - e. Eliminate unnecessary items.
  4. Prepare revised and additional forms.
- B. Preparation and printing of new reporting manuals.
  1. Study the cooperatively developed national handbooks with respect to the Vermont program of statistical services so as to make these handbooks as widely applicable as possible.
  2. Produce and distribute preliminary forms of the new reporting manuals for the use of local educational agencies to serve as guides in the implementation of the cooperatively developed national handbooks.
  3. Evaluate the procedures and the preliminary forms of the new reporting manuals developed, further improve them, and prepare, print, and distribute revised reporting manuals.
- C. Use of mechanical processing of statistical data.
  1. Study the use of mechanical processing of data for the purpose of inaugurating such a system in the Vermont Department of Education to relieve local supervisory and administrative officials of some statistical burdens and to increase accuracy and speed of reporting.
  2. Study data for the purpose of adapting it to mechanical processing.
  3. Develop forms and punch cards for the use of mechanical processing.
  4. Purchase or rent, or both, the necessary machinery and equipment for the mechanical processing of statistical data.
  5. Employ a statistician.
  6. Mechanically or electronically process statistical data.
- D. Working with local educational agencies to improve the keeping of records and reports.



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1. Provide assistance to local educational agencies either in the State department office or by staff members traveling in the field.
  2. Hold workshops and conferences with local school superintendents and with other local officials concerning improving the keeping of records and reports, budgets, and financial statements to increase the accuracy and the speed of reporting.
  3. Carry on a continuous program of such training.
- E. The development and implementation of other plans for the improvement of statistical services.
1. Prepare statistical tables and analyses of data, such as:
    - a. Teachers' and administrators' salaries and tenure.
    - b. Curriculum patterns and subject enrollments, with trends.
    - c. Pupil education in various secondary curricula.
    - d. School construction in Vermont.
    - e. Teacher supply and demand and teacher attrition.
    - f. Incidence of physical and mental disabilities in Vermont.
    - g. Pupil attrition in various grades and types of schools.
    - h. Assistance to local school districts in the statistical work of making local educational surveys.
    - i. Analysis of professional preparation of teachers.
    - j. Fiscal needs and fiscal support of Vermont school districts.
    - k. Trends in Vermont school district reorganization.
    - l. State and local school expenditures related to the more equitable distribution of State aid.
    - m. Dissemination of statistical information.
    - n. Other significant statistical activities in various fields of educational practice.
  2. Hold conferences with department staff members; utilize advisory committees composed of educational personnel from within and outside the department, and of personnel from other State agencies; utilize the services of consultants and specialists.
  3. Employ additional personnel, purchase and/or rent equipment, and incur other expenses as needed.

VI. Implementation of Program

A. FY 1959: No program in operation.	
B. FY 1960: Federal funds	\$2,567.48
State funds	2,567.62
<b>Total</b>	<b>\$5,135.10</b>

The Vermont State Department of Education held a series of meetings with division heads and groups of school superintendents to analyze and evaluate reporting forms and to work toward better coordination of statistical services.



Before title X, Vermont had already begun to use Handbook I, *The Common Core of Educational Information*, as a basis for revising the major portion of the annual statistical report from local school districts. The department had also started to implement Handbook II, *Financial Accounting for Local and State School Systems*. To discuss the topics which should be covered in a manual to help school officials in reporting data, a series of meetings were held with school board clerks and school district treasurers. A rough draft of a reporting manual was prepared and duplicated. It will be used experimentally by local school officials. If necessary, it will be revised after a year's use and then printed for distribution. Further to improve the keeping of records and reports, discussions at some length were held with school superintendents, school board clerks, and school district treasurers in using Handbook II as a guide for reporting financial data.

Assistance was given during the year to local school districts in the statistical work of making local education surveys to determine fiscal needs and the methods of fiscal support of the various districts.

Curriculum patterns and subject enrollments, together with trends, were tabulated in a preliminary way.

## VIRGINIA

- I. Official Agency: State Board of Education
- II. Administered by: State Superintendent of Public Instruction  
Assistant State Superintendent of Public Instruction  
Director of the Division of Administration and Finance
- III. Effective Date: July 31, 1959
- IV. General Policies and Purposes  
Improve the collection, verification, processing, interpretation, and dissemination of the educational statistics of the Virginia State Board of Education.
- V. Proposed Program  
*Improvement of Statistical Services in the Offices of the State Board of Education of the Commonwealth of Virginia*
  - A. Evaluate the present statistical services program through expansion of both personnel and equipment and through departmental conferences in an advisory capacity, with the possible use of outside consultants.
    1. Analyze carefully and systematically the data presently collected by the department to determine whether any can be eliminated and whether there is any duplication; also to determine a more effective use of data already available.
    2. Examine critically the methods presently used in the department for the collection, verification, processing, interpretation, and dissemination of statistical data.

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- B. Unify, coordinate, and centralize statistical services.
  - 1. Establish an Office of Statistical Services in the Division of Administration and Finance and provide the personnel, data processing machines and other equipment, and consultative services necessary to accomplish the purpose and intent of the statistical services program.
  - 2. Change from the present methods of processing statistical data to the new program of unified processing in such manner as not to lose the present benefits, but at the same time to gain more effective use of present data through the improved organizational structure.
  - 3. Process present data and new data on the basis of demonstrated need as developed through the studies described under "A."
- C. Expand and improve machine processing of statistical data.
  - 1. Transfer present services to new Office of Statistical Services.
  - 2. Add new equipment and personnel, as needed, based on the results of the evaluation study.
    - a. Coordinate present statistical reports.
    - b. Develop new and expanded statistical reports as a result of the increased emphasis on improving the interpretation and dissemination of information concerning public education.
    - c. Use data processing equipment to increase speed in processing data and to make more effective use of basic data now available and to be made available.
- D. Prepare pupil and finance accounting manuals for use on local level.
  - 1. Study the national handbooks and the prevailing practices in the various counties and cities of Virginia through conferences, assembling of materials, and, possibly, through consultative services.
  - 2. Prepare tentative manuals, followed by completed manuals, adopting the cooperatively developed national handbooks to the school program in Virginia.
- E. Conduct conferences and workshops to implement the use of pupil and finance accounting manuals.
  - 1. To acquaint school personnel who are responsible for pupil and financial accounts and reports with the manuals developed under part "D."
  - 2. To assist such personnel in the prompt preparation of more accurate and informative reports through implementation of the manuals developed under part "D."
- F. Establish a program of State consultative services for local school personnel concerned with educational statistics.
  - 1. Add personnel and purchase such equipment as may be necessary.
  - 2. Determine specific areas in which personnel will operate.
  - 3. Provide consultative services to local school personnel.

- a. To assist the localities in the improvement of the maintenance of statistical and accounting records which serve as a basis for local information needs and for uniform reporting to the State and national offices.
- b. To assist in the correction of such irregularities as may be found to exist.

**VI. Implementation of Program**

- A. *FY 1959*: No program in operation.
- B. *FY 1960*: No program in operation.

**VIRGIN ISLANDS**

- I. **Official Agency:** Department of Education
- II. **Administered by:** Commissioner of Education  
Assistant Commissioner of Education  
Supervisor of Statistics
- III. **Effective Date:** June 2, 1959 (amended June 19, 1959)
- IV. **General Policies and Purposes**

The general aims, purposes, and policies of the State agency program(s) for the improvement of statistical services are the improvement and expansion of statistical services in the Virgin Islands Department of Education to provide for the collection, verification, processing, and dissemination of educational data in order that correct, current information may be readily available for analysis, projections, trends, and estimates.

**V. Proposed Program**

*Improvement and Expansion of Statistical Services in the Virgin Islands Department of Education*

- A. **Evaluation of existing statistical services.**
  1. All data items collected will be organized and studied to discover gaps in coverage, duplications, and how well recognized needs are being met through data collected.
  2. Timeliness of data, frequency of collection, sources and quality of data will be studied.
  3. Methods of collection, organizing, analyzing, interpreting, dissemination, and using data will be reviewed.
  4. All forms will be studied.
  5. The organization for statistical services will be evaluated.
  6. Such factors as equipment, space, staff and facilities will be included in the evaluation.
- B. **Implementation of the cooperatively developed national handbooks.**
  1. Study present record keeping in relation to the definitions and recommendations of the cooperatively developed national Handbooks I and II, and Handbook III, when issued.
  2. Determine changes, additions, and expansions of the present record keeping and reporting that should be made.

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3. Examine methods of implementing changes, additions, and expansions.
4. Decide upon and carry out methods of implementation.
  - a. Development of guides and manuals for use in improving finance and personnel accounting and reporting, and property accounting.
  - b. Use of inservice training, conferences, and workshops for personnel concerned with finance and personnel accounting and reporting, and property accounting.
- C. Improvement of the organization and operation of statistical services in the Virgin Islands Department of Education.
  1. Establish more nearly adequate organization for statistical services.
  2. Add statistical services personnel.
  3. Identify sources of useful data which are not being used, and determine how these sources may be used.
  4. Introduce new equipment to improve statistical services.
  5. Determine how improvement can be made in filling out statistical reports such as those made to the U.S. Office of Education.
  6. Establish inservice training for statistical services personnel in the State education agency.
  7. Expand statistical summary section of annual report to include graphic representation of comparative data.

### VI. Implementation of Program

A. <i>FY 1959</i> : Federal funds .....	\$3,222.23
State funds .....	3,222.23
Total .....	\$6,444.46

The State plan was in effect less than a month during this fiscal year but some activities were initiated for ultimate improvement.

Departmental organization was arranged to provide better coordination and a supervisor of statistical services was appointed. Teachers' reports were revised and condensed so that less teacher time is required in computation and reporting.

B. <i>FY 1960</i> : Federal funds .....	\$15,331.85
State funds .....	15,331.85
Total .....	\$30,663.70

A special consultant officer for pupil accounting, additional clerks, and an attendance officer were added to the staff and assigned part time to statistical services.

The evaluation was practically completed; new attendance registers and report forms were developed and printed.

Handbook terminology was adopted and each principal was provided a copy of Handbook I.

A pre-enrollment census was taken in May and a new filing system was developed for census data.

## WASHINGTON

- I. Official Agency: State Superintendent of Public Instruction
- II. Administered by: Superintendent of Public Instruction  
 Administrative Assistant  
 Coordinator, National Defense Education Act  
 Departmental Statistician
- III. Effective Date: Oct. 29, 1958 (amended July 28, 1959 and Jan. 4, 1960)

## IV. General Policies and Purposes

- A. Provide common terminology and reporting procedures for public school reporting agencies.
- B. Standardize reporting procedures with the recommendations and methods set up in the handbook *Financial Accounting for Local and State School Systems*.
- C. Provide standardized reporting to the Division of Municipal Corporations, the auditing authority in the Washington State auditor's office.
- D. Increase the usefulness of educational data within the State by making it more current, by improving its quality, and through improved analysis.
- E. Inform, instruct, and guide local and county school officers in the gathering, compilation, and submission or dissemination of statistical information relating to the operation and financing of school programs.

## V. Proposed Program

*Program A: Preparation, Printing and Distribution of a Public School Financial Accounting Manual*

- A. A manual will be printed in looseleaf form so that it can be revised, supplemented, or changed from time to time as experience dictates, or as required by new legislation, or by expansion of the reporting program. Meetings of the advisory committee and the State staff who collaborate in the preparation of the manual will continue upon call for an indefinite period of years as the project demands.
- B. The circulation and use of the manual will produce an improvement of statistical services through the use of standard educational terms, definitions, and measurements, and will likewise form a background for educational data dealing entirely with the new and expanded programs contemplated within the Act by the State education agency.

*Program B: Conferences and Workshops Regarding Public School Accounting Manual*

- A. To insure a full realization of the potential of the Public School Accounting Manual and to explain and clarify its utilization on both State and local levels, a series of conferences and workshops will be held in eight separate areas of the State. The State agency fiscal officer and a representative of the Division of Municipal Corporations will direct the meetings. It is assumed also that numerous conferences with individual school officers will be required.

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B. These workshops and conferences will bring together those persons responsible for supplying local educational data to the State agency. The primary subject of discussion will be the Public School Accounting Manual and its use in making reports to the State education agency and maintaining accurate records at the local level. This is a continuing project, and a series of workshops and conferences will be held annually as required by additions or changes in the contents of the manual.

*Program C: Establishment of an Improved Statistical Data Recording System to Facilitate the Study and Use of Factors Inherent in the Operation of the Public Schools in the State of Washington*

This program will be accomplished by the development of a unique system of recording school statistical data through the use of thin-line vertical graphs. It will also be accomplished by the installation and use of improved data processing methods and equipment and by conducting evaluation and consultative activities designed to improve the statistical services of the State education agency.

**VI. Implementation of Program**

A. FY 1959: Federal funds .....	\$ 985.88
State funds .....	985.88
<b>Total .....</b>	<b>\$1,971.76</b>

The *Accounting Manual for Public School Districts for the State of Washington* was published and distributed to the 435 school districts, 39 county superintendents, 39 county auditors, and others. This will expand the scope of data collection and result in greatly improved accuracy because of the use of like terminology and removal of doubt as to proper reporting entries. Like terminology will permit an improvement in analysis and interpretation of data by the State agency. With the improvement in reporting procedures, data not heretofore available will be machine processed.

A constant inservice training program for State agency personnel was in progress throughout the year. Eight workshops were held in various parts of the State to familiarize local agency personnel with the accounting manual and its new procedures. A total of 559 persons representing school districts and offices of the county superintendent and county auditors attended these workshops, which were conducted by the State agency fiscal officer and statistician, a chief examiner from the State auditor's office, and the business manager of a large school district.

B. FY 1960: Federal funds .....	\$4,494.26
State funds .....	4,494.27
<b>Total .....</b>	<b>\$8,988.53</b>

Planning toward the revision of the accounting manual was in process and will be accomplished during the 1961 fiscal year. Because of the development and distribution of this manual a much more uniform use of standard terminology now exists.

The scope of data collection is being extended as programs are implemented at State and local levels. Data related to titles III and V-A have been coded and added to the machine file. Recently completed junior high school studies have been machine processed, and a high school study currently in progress will be coded for future reference.

The employment of one additional machine technician and one additional accountant permitted more detailed cross checking and examination of data for accuracy.

The statistical division made progress in the acceleration of the collection and process of data. Reporting forms were subjected to constant evaluation in order to meet current reporting needs.

The statistical staff participated in numerous conferences directed toward improvement of services at the local level. One major topic has been that of developing coding systems whereby cards prepared at the local level may be mailed to the department, processed, and then become a part of the statistical library. With several of the major districts making the transition to machine processing and smaller districts installing key punch equipment, this offers possibilities for the improvement of all school statistical services.

## WEST VIRGINIA

- I. Official Agency: West Virginia Board of Education
- II. Administered by: State Superintendent of Free Schools, assisted by the Administrator of Federal Aid Programs
- III. Effective Date: Feb. 11, 1959
- IV. General Policies and Purposes

The general purpose of this program is the development of integrated and purposeful information through statistical services to the districts and the State as they may have requirement or need for these services. It shall be the policy to accomplish this development through departmental reorganization, evaluation of present statistical services, study and initiation of machine data processing, implementation of national handbooks, and broadening the scope of data collection.

### V. Proposed Program

#### *Improvement of the Statistical Services of the State Department of Education of West Virginia*

##### A. The establishment of a Statistical Services Section.

A new section of the department of education shall be established to assist divisions of the State agency in collecting, recording, compiling, analyzing, publishing, and disseminating data in educational areas.

This part of the program shall provide for personnel services, operational costs, purchase and/or rental of equipment, and other services incident thereto.



The Statistical Services Section shall engage in an educational activity only upon approval of the State superintendent.

**B. Evaluation and interpretation of present data collection.**

Under this part of the program the Statistical Services Section will undertake a study of the present practices of data gathering by analysis of the purposes, instruments, and usage of the present data. The purpose of this program shall be to eliminate duplication in collecting data and thus lessen the demands on reporting units, to provide uniform and integrated statistical reporting, and to provide data more readily and more accurately.

This program shall continuously evaluate the revisions it places in operation.

The progress and results of this program will be made available upon completion or upon the request of the Office of Education.

**C. Data collection from noneducational agencies.**

This activity shall provide for development of cooperative approaches for the purpose of collecting and disseminating data from noneducational agencies. Such data shall have usefulness and pertinence to educational areas, such as health, finance, welfare, employment and economic activity, legislative requests, public safety, etc.

**D. Development of informational processes for educational areas.**

Patterns of data collection, processing, and release media shall be developed. Such patterns shall provide for more accurate and practical release of pertinent information. All projects shall be developed in cooperation with the counties and the divisions of the State agency concerned and with approval by the administrator. The Statistical Services Section may not unilaterally undertake such activities.

The use of consultants, conferences, workshops, and other means of cooperation in initiating, developing, and analyzing projects may be part of this part of the program.

The projects to be developed shall be selected for their pertinence to educational and informational needs of the State.

One of the phases to be considered under this part of the program will be a compilation of data on instructional personnel. This information is now partially available in divisions and agencies concerned with teacher certification, finance, retirement, instruction, colleges and universities, Social Security, etc. Some of these divisions are not a part of the State agency.

Some of the data are collected, compiled, and published; some are collected and compiled; some are only collected. Some data are omitted. At no one place is information available and no analysis has been made for general guidance. The same or parallel material is collected at different times and by different divisions.

This proposed project will make readily available in usable form such information about instructional personnel as name, race, sex, marital status, dependents, education preparation, total educational experience, experience in State, experience

out of State, teaching fields qualified for, teaching field assignment, reason for leaving teaching, etc.

- E. Implementation of national handbooks published by the U.S. Office of Education.

After consultation with county boards of education and State agencies, the administrator shall direct reviews of national handbooks. Local and State records and reports shall be studied for revisions to provide for conformity with the national handbooks. The national handbooks shall serve as a basis for the development of statistical data units.

Because of statutory divisions of authority and responsibility, primarily in areas of finance, some projects under this section will require cooperation with a deference to other State departments, such as the State Tax Commissioner's Office. This activity will require extensive study and conference procedures.

- F. Extension of informational areas.

The administrator shall initiate the extension of collection, processing, and dissemination in educational information areas now omitted or inadequately considered by the State agency. It shall be the intent of this program to develop at least minimum basic informational and analytical services in these areas. For example, informational services for higher education, special education, etc., are inadequately treated and in psychological, sociological, socioeconomical, and similar areas, no information is available.

**VI. Implementation of Program**

- A. FY 1959: No program in operation.
- B. FY 1960: Federal funds ..... \$8,000  
State funds ..... 8,000

Total ..... \$16,000

The activities for fiscal year 1960 were concentrated in a study of the statistical services of the West Virginia State Department of Education. The study was directed by an outside consultant and was based upon problems, needs, and areas of service as identified by staff members of the State department.

A policy and planning committee was appointed by the State Superintendent of Free Schools in West Virginia. It was the function of this committee to receive suggestions, plans, and procedures for the development of the study by the research staff, and to adopt policies within which the research staff would function. The research staff was composed of three members who followed the study to completion. As priority areas were identified for the study, selected staff members were secured to render specific and technical services.

The major purposes of the study, and some of the activities carried out to accomplish these purposes, were as follows:

1. To identify the strengths and the limitations of the present program of statistical services of the State department of education. This included an analysis of essential statistical data required by Federal and State agencies, the needs of the State department of education,

and the needs of county school administrators. The study was also concerned with the duplication of requests for data by the various divisions of the State department of education, and other related factors. In conducting this phase of the study, the survey staff examined and appraised all data gathering forms now being used by the department of education. Counsel was solicited from State department of education personnel and a representative sampling of county school personnel.

2. To plan an improved program of essential data gathering, interpretation, and reporting. This included the development of a coordinated plan for the gathering of essential statistical data, the elimination of unessential duplication of reporting by county superintendents, and the collection of such information which will assist educational administrators, the State department of education personnel, and members of the legislature to plan more effectively for the best possible educational program in West Virginia. As in item 1 above, the survey staff systematically sampled responsible educators to obtain ideas for identification of the most feasible and creative approaches to the improvement of statistical services.
3. To suggest ways and means for an appropriate implementation of the improved program of statistical services by the State department of education for West Virginia. This was approached from the standpoint that statistics should be a means to an end, and not an end in themselves. It was the purpose of this part of the study to suggest methods, techniques, and procedures to be used to effectively implement the proposals made in item 2 above. Specifically, recommendations were developed concerning the installation of electronic data processing equipment, the employment of personnel, and the total cost of an expanded and improved program of statistical services.

The final report of this study will be published on or about Nov. 30, 1960.<sup>3</sup>

## WISCONSIN

- I. Official Agency: State Department of Public Instruction
- II. Administered by: State Superintendent of Public Instruction
- III. Effective Date: Sept. 4, 1959
- IV. General Policies and Purposes

The general aims of the State department of public instruction are to provide, through expansion, addition, revision, and improvement of new areas not now being covered, the following:

<sup>3</sup>The 72-page report, *Educational Statistics in West Virginia: An Evaluative Study of the Statistical Services of the State Department of Education*, was published Dec. 1, 1960, by the Bureau of Educational Field Services, Miami University, Oxford, Ohio.

- A. Improvement of the collection, verification, analysis, and reporting of statistical data supplied by local educational units.
- B. Development of accounting and reporting manuals to serve as guides for local educational units.
- C. Conferences and training for personnel of local educational units.
- D. Periodic review and evaluation of the program of records and reports.
- E. Improved methods of obtaining, from other State agencies, educational data not collected by the department.
- F. Expedited reporting and processing of statistical data through installation and operation of mechanical equipment.
- G. Analysis, interpretation, and presentation of data collected to local, State, and Federal units of government.

#### V. Proposed Program

*Improvement, Addition, Revision, and Expansion of the Statistical Services and Reporting Systems of the State Department of Public Instruction so as to Facilitate the Collection, Verification, Processing, Analysis, Dissemination, and Use of Data.*

- A. Evaluation of existing statistical services, reporting forms, and improvement of the overall reporting systems.

Outside services, as well as those within the department of public instruction, will be employed for:

1. The collection and preliminary study of all reporting forms presently being used to discover the need and use of reports now being collected.
2. The development of an overall set of criteria relative to a well coordinated statistical reporting system.
3. Revision of existing reports found to be essential.
4. Identification of duplication and obsolescence by individual items.
5. Determination of better methods of collection.
6. Review of departmental, local, and Federal utilization of statistical data.

- B. Preparation, printing, and dissemination of school accounting manuals.

The present accounting manuals have been in use since 1953. It is proposed to evaluate them in terms of existing practice and in conformity with the national accounting handbooks and current statutes. After printing and distribution of the revised manuals, workshops and other inservice training projects will be instituted in order to place the manuals in operation.

- C. Implementation of Handbook I, *The Common Core of State Educational Information* and Handbook II, *Financial Accounting for Local and State School Systems*, in terms of the Statistical Reports in Wisconsin Public Schools.

The following activities are anticipated under this part of the plan:

1. Determine the modification of present reporting in terms of vocabulary and areas of data desired on the local, State, and national levels.

2. Formulate proposals and establish criteria pertinent to Handbook I and Handbook II.
  3. Amend, revise, and expand reports.
  4. Adapt collection and tabulation methods.
  5. Install machine operation in the processing of data.
  6. Tabulate and record statistical information.
  7. Publish and analyze statistical reports.
- D. The establishment of professional services for the improvement, preparation, evaluation, and interpretation of statistical data and reports at the local, county, and State levels.

Present operation in statistical analysis is limited to the areas of reorganization, building services, and State support. Curriculum, teacher certification, attendance, and holding power are illustrations of areas in which little analysis has taken place.

This part of the program proposes the following activities:

1. Installation of qualified personnel in budget analysis and statistical reporting.
  2. A review of the areas of statistical reporting processes which are pressing concerns of school administration. This includes the collection of data needed to make necessary projections as it affects administration, supervision, curriculum, and facilities or housing.
  3. The selection of special areas for detailed interpretation.
  4. A careful interpretation of State support operation.
  5. Development of sampling technique for statistical study purposes.
  6. A statistical report and evaluation of the holding power of Wisconsin high schools.
  7. An analysis of administrative units and educational opportunities.
- E. The establishment of a uniform system of pupil accounting.

Present pupil accounting is based on local determination and in accord with required reporting. It is proposed to develop uniformity in pupil accounting vocabulary and to prepare a pupil accounting manual with suggested reporting and recording forms. Pupil accounting practices and records being used at the local and county levels will be reviewed. A manual will be prepared which will set forth uniform definitions and accounting forms for pupil accounting. Inservice training programs will be conducted with administrators and county superintendents relative to the installation of the pupil accounting system.

- F. The establishment of a uniform system of school property accounting.

A status study will be made to determine the methods now used by local school systems in maintaining the property inventories. The national handbooks on school property accounting will be related to present practices, and preliminary forms will be developed consistent with local and State needs. A preliminary draft of the State property accounting manual will be developed and used on a trial basis prior to the final revision and publication. Inservice training workshops and conferences will be held for implementing the property accounting procedures.

- G. The establishment of machines and electronic processing of statistical data.

It is proposed to study programs of machine operations in other States, to employ expert consultative service in this technical area, and to explore the adaptation of machine operations to statistical services of the Wisconsin department. After a thorough study of the possibilities, mechanical data processing equipment will be installed and adapted to the statistical operations of the department.

#### VI. Implementation of Program

A. FY 1959: No program in operation.	
B. FY 1960: Federal funds	\$ 6,378.95
State funds	7,987.43
Total	\$14,366.38

Title X activities were not initiated until late in fiscal year 1960. A part-time supervisor was employed for May and June, with full-time employment to begin on July 1, 1960. Likewise, one part-time secretary was employed for June, with full-time employment anticipated as of July 1, 1960.

Considerable reproduction equipment was purchased for the purpose of expediting reproduction work and forms for the department.

A start was made on the review and evaluation of reporting forms and on investigation of the possibilities of using machine data processing for teacher certification.

## WYOMING

- I. Official Agency: Wyoming State Board of Education  
 II. Administered by: State Superintendent of Public Instruction  
 Assistant Superintendent for Administration  
 III. Effective Date: June 29, 1959 (amended Nov. 6, 1959)  
 IV. General Policies and Purposes

The program for the improvement of statistical services in the Wyoming State Department of Education will have the purpose of broadening the scope of data collection, expediting the collection, processing, analysis, and dissemination of data relating to education in the State, and improving the organization of statistical information and services to provide timely, valid, and dependable information about education in Wyoming.

#### V. Proposed Program

##### *Improvement of Statistical Services in the Wyoming State Department of Education*

- A. An evaluation of existing statistical services.
1. Identify and classify all data now collected.
  2. Examine procedures whereby data are collected, recorded, and disseminated.

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3. Collect available materials pertinent to the evaluation.
4. Determine needs now being met and those which should be met.
5. Arrive at recommendations for procedures which can be followed in improving forms and procedures.

In carrying out the evaluation, advisory committees may be used, consultative services may be contracted, and additional personnel may be employed. Materials, travel, correspondence, and office equipment, including mechanical equipment, will be included in the expense items of this program.

- B. Development of an efficient system of records and reports.
  1. Through staff arrangement and advisory committees, study of the handbooks will be made and approaches to their implementation will be determined.
  2. First drafts of new and revised forms will be drawn.
  3. Conferences and workshops will be held to explain changes in forms and procedures.
  4. New systems will be established.
  5. Manuals will be developed for use by the local schools in establishing and carrying out the new systems.
  6. Field service to county and local personnel will be provided in such manner and extent as is necessary to implement new and revised procedures, and to improve the scope, timeliness, and reliability of educational information.
  7. Consultative services may be contracted, additional personnel may be employed, and costs of materials, travel, equipment, printing and reproduction, and miscellaneous items will be included.

VI. Implementation of Program

A. FY 1959: No program in operation.	
B. FY 1960: Federal funds	\$18,486.19
State funds	18,486.19
Total	\$26,972.38

The Wyoming State Department of Education participated in a State administration study in which the department's statistical services were being evaluated. Suggestions were offered for conversion to electronic data processing.

Statutory changes enacted by the 35th Legislature in 1959 made possible a staff reorganization which allowed improvement of the organization of statistical services. Coordination of statistical services was improved by the employment of a coordinator of information. Some staff reassignments for statistical work were made.

The department is gradually adopting terminology used in the national handbooks, but no conversion of statistical tables has yet been made. A workshop with U.S. Office of Education personnel was being planned.

Some inservice training sessions for State agency personnel and conferences and workshops for local personnel were held.



## Tables

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Table 1.—Amount of Federal and State share of expenditures under section 1009, title X, by State: Fiscal year 1959<sup>1</sup>

State <sup>2</sup>	Total	Federal share	State share
1	2	3	4
<b>Total</b>	<b>\$479,925</b>	<b>\$237,799</b>	<b>\$242,226</b>
Arkansas	3,187	1,594	1,594
Colorado	24,573	12,205	12,368
Connecticut	3,611	1,806	1,806
Florida	59,192	28,988	30,203
Georgia	60,000	30,000	30,000
Hawaii	8,064	4,032	4,032
Illinois	14,319	7,159	7,159
Iowa	10,298	5,149	5,149
Kansas	4,704	2,352	2,352
Kentucky	1,204	602	602
Maine	1,072	536	536
Maryland	3,492	1,746	1,746
Massachusetts	23,991	11,995	11,996
Minnesota	6,435	3,218	3,218
Montana	8,999	2,998	3,001
Nebraska	983	491	491
New Jersey	3,139	1,569	1,570
New Mexico	10,208	3,595	6,613
New York	24,655	12,327	12,327
Ohio	21,485	10,743	10,743
Oregon	9,094	4,547	4,547
Pennsylvania	9,320	4,760	4,760
Rhode Island	42,573	21,287	21,287
South Dakota	1,093	484	609
Tennessee	85,353	42,677	42,677
Texas	28,543	14,271	14,271
Utah	4,722	2,361	2,361
Washington	1,972	986	986
Virgin Islands	6,444	3,222	3,222

<sup>1</sup> As of Jan. 1, 1961.

<sup>2</sup> The following did not participate financially in fiscal year 1959: Alabama, Alaska, Arizona, California, Delaware, District of Columbia, Idaho, Indiana, Louisiana, Michigan, Mississippi, Missouri, Nevada, New Hampshire, North Carolina, North Dakota, Oklahoma, South Carolina, Vermont, Virginia, West Virginia, Wisconsin, Wyoming, Canal Zone, Guam, and Puerto Rico.

NOTE.—Because of rounding, detail may not add to total.

Table 2.—Amount of expenditures under section 1009, title X, by State and object: Fiscal year 1959<sup>1</sup>

State <sup>1</sup>	Total	Personal services	Equipment purchases and rental	Other
1	2	3	4	5
<b>Total</b>	<b>\$479,925</b>	<b>\$111,212</b>	<b>\$228,768</b>	<b>\$134,945</b>
Arkansas	3,187	1,513	1,509	166
Colorado	24,573	5,949	13,018	5,607
Connecticut	3,611	3,237	89	285
Florida	59,192	31,579	8,163	19,450
Georgia	60,000	3,261	26,958	29,781
Hawaii	8,064	1,088	3,521	3,454
Illinois	14,819	5,557	6,978	1,783
Iowa	10,298	2,254	4,509	3,535
Kansas	4,704	2,037	2,140	527
Kentucky	1,204	831	383	
Maine	1,072			1,072
Maryland	3,492	183	1,390	1,918
Massachusetts	23,991		23,991	
Minnesota	6,435	2,693	2,787	955
Montana	5,909	1,343	1,085	3,573
Nebraska	983	913		70
New Jersey	3,139	1,538	1,341	260
New Mexico	10,208	6,278	1,850	2,080
New York	24,655	4,221	377	20,056
Ohio	21,485	591	788	20,107
Oregon	9,094	6,106	2,432	556
Pennsylvania	9,520	1,478	7,963	79
Rhode Island	42,573		35,794	6,779
South Dakota	1,093		517	576
Tennessee	85,353	4,395	74,241	6,718
Texas	28,543	19,482	5,973	3,088
Utah	4,722	1,230	3,246	246
Washington	1,972	245		1,727
Virgin Islands	6,444	3,223	2,727	495

<sup>1</sup> As of Jan. 1, 1961.

<sup>2</sup> The following did not participate financially in fiscal year 1959: Alabama, Alaska, Arizona, California, Delaware, District of Columbia, Idaho, Indiana, Louisiana, Michigan, Mississippi, Missouri, Nevada, New Hampshire, North Carolina, North Dakota, Oklahoma, South Carolina, Vermont, Virginia, West Virginia, Wisconsin, Wyoming, Canal Zone, Guam, and Puerto Rico.

Note.—Because of rounding, detail may not add to total.

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Table 3.—Amount of Federal and State share of expenditures under section 1009, title X, by State: Fiscal year 1960<sup>1</sup>

State <sup>2</sup>	Total	Federal share	State share
1	2	3	4
<b>Total</b>	<b>\$1,799,673</b>	<b>\$526,236</b>	<b>\$874,439</b>
Alaska	15,668	7,834	7,834
Arkansas	17,080	8,534	8,534
California	57,895	28,947	28,947
Colorado	66,855	33,322	33,534
Connecticut	22,798	11,399	11,399
Florida	118,191	60,000	68,191
Georgia	100,000	60,000	60,000
Hawaii	67,391	31,196	31,196
Idaho	13,617	2,975	10,641
Illinois	61,311	28,755	23,755
Iowa	65,006	47,503	47,503
Kansas	20,066	10,033	10,033
Kentucky	9,799	4,900	4,900
Maine	13,155	6,578	6,578
Maryland	14,085	7,043	7,043
Massachusetts	58,806	29,449	29,449
Minnesota	40,546	20,273	20,273
Mississippi	21,013	10,506	10,506
Missouri	6,309	3,154	3,154
Montana	26,087	17,435	18,653
Nebraska	16,179	8,089	8,089
New Hampshire	6,662	3,331	3,331
New Jersey	27,818	13,909	13,913
New Mexico	46,909	22,821	24,087
New York	67,665	33,977	33,978
North Dakota	2,579	1,284	1,285
Ohio	97,068	48,534	48,534
Oklahoma	117,268	60,000	67,268
Oregon	23,688	11,844	11,844
Pennsylvania	43,161	21,580	21,580
Rhode Island	67,774	33,887	33,887
South Carolina	26,083	18,016	18,016
South Dakota	12,916	6,081	6,835
Tennessee	78,659	39,280	39,280
Texas	80,125	40,062	40,062
Utah	15,384	7,692	7,692
Vermont	8,125	2,548	2,548
Washington	8,989	4,494	4,494
West Virginia	16,000	8,000	8,000
Wisconsin	14,366	6,379	7,987
Wyoming	26,972	13,486	13,486
Puerto Rico	17,511	8,756	8,756
Virgin Islands	30,664	15,332	15,332

<sup>1</sup> As of Jan. 1, 1961.

<sup>2</sup> The following did not participate financially in fiscal year 1960: Alabama, Arizona, Delaware, District of Columbia, Indiana, Louisiana, Michigan, Nevada, North Carolina, Virginia, Canal Zone, and Guam.

Note.—Because of rounding, detail may not add to total.

Table 4.—Amount of expenditures under section 1009, title X, by State and object:  
Fiscal year 1960<sup>1</sup>

State <sup>2</sup>	Total	Personal services	Equipment purchases and rental	Other
1	2	3	4	5
<b>Total</b>	<b>\$1 798 675</b>	<b>\$1 012 235</b>	<b>\$354 769</b>	<b>\$431 671</b>
Alaska	15 068	9 059	1 382	3 228
Arkansas	17 049	12 813	987	3 209
California	57 805	44 485	6 712	6 608
Colorado	66 855	46 245	8 753	11 857
Connecticut	22 798	17 236	4 802	760
Florida	118 191	91 468	14 160	12 563
Georgia	100 000	80 889	28 915	30 196
Hawaii	62 391	34 582	14 789	23 049
Idaho	12 617	10 917	1 499	1 201
Illinois	51 511	22 891	18 687	8 953
Iowa	95 000	48 340	39 754	6 912
Kansas	20 066	12 153	1 056	5 825
Kentucky	9 799	8 508	946	345
Maine	12 155	6 007	2 512	4 587
Maryland	14 085	11 068	1 560	1 456
Massachusetts	28 898	20 214	28 144	13 540
Minnesota	40 546	29 264	1 965	2 217
Mississippi	21 012	12 224	4 482	4 207
Missouri	6 200	4 244	1 195	870
Montana	26 087	17 555	1 901	16 621
Nebraska	16 179	14 612	469	1 097
New Hampshire	6 662	2 515	1 224	1 814
New Jersey	27 818	17 572	9 202	1 040
New Mexico	46 909	24 025	8 295	4 479
New York	67 955	22 194	9 107	26 654
North Dakota	2 579	1 422		1 146
Ohio	97 068	21 720	8 065	67 273
Oklahoma	117 268	52 902	57 624	5 731
Oregon	22 688	22 025		1 663
Pennsylvania	42 161	41 224	422	1 394
Rhode Island	67 774	42 942	1 512	22 219
South Carolina	26 022	24 944	8 919	6 170
South Dakota	12 916	8 419	1 288	3 108
Tennessee	78 559	31 128	27 151	20 280
Texas	80 122	70 121	6 711	3 290
Utah	12 254	6 927	2 425	3 032
Vermont	2 125	2 828	864	444
Washington	8 989	7 268	587	1 032
West Virginia	16 000	14 750		1 250
Wisconsin	14 266	517	12 505	1 254
Wyoming	26 972	17 880	1 494	7 619
Puerto Rico	17 511	11 874	4 122	1 515
Virgin Islands	20 664	17 897	6 161	6 608

<sup>1</sup>As of Jan. 1, 1961.<sup>2</sup>The following did not participate financially in fiscal year 1960: Alabama, Arizona, Delaware, District of Columbia, Indiana, Louisiana, Michigan, Nevada, North Carolina, Virginia, Canal Zone, and Guam.

NOTE.—Because of rounding, detail may not add to total.

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Table 5.—Effective date of State plan and amount of Federal funds requested under section 1009, title X, by State: Fiscal year 1961<sup>1</sup>

State <sup>2</sup>	Effective date of State plan	Amount of Federal funds requested
1	2	3
Total.....		\$1,209,080
Alabama.....	Jan. 5, 1959	
Alaska.....	Apr. 27, 1959	
Arizona.....	Aug. 31, 1959	13,050
Arkansas.....	Apr. 23, 1959	
California.....	July 6, 1959	11,100
Colorado.....		50,000
Connecticut.....	Mar. 16, 1959	50,000
Delaware.....	Dec. 29, 1958	14,777
District of Columbia.....	June 2, 1959	42,500
Florida.....	Feb. 19, 1959	
Georgia.....	Dec. 19, 1958	60,000
Hawaii.....	Dec. 12, 1958	50,000
Idaho.....	Dec. 5, 1958	25,885
Illinois.....	Jan. 19, 1959	2,500
Iowa.....	Mar. 9, 1959	50,000
Kansas.....	Jan. 5, 1959	50,000
Kentucky.....	Jan. 2, 1959	22,325
Maine.....	Feb. 19, 1959	20,935
Maryland.....	Apr. 17, 1959	20,130
Massachusetts.....	Jan. 26, 1959	9,450
Michigan.....	Mar. 5, 1959	50,000
Minnesota.....	Feb. 2, 1959	
Mississippi.....	May 8, 1959	20,000
Missouri.....	May 27, 1959	26,000
Montana.....	June 5, 1959	10,250
Nebraska.....	Jan. 20, 1959	29,900
Nevada.....	June 8, 1959	10,075
New Hampshire.....	Jan. 16, 1959	
New Jersey.....	May 21, 1959	9,337
New Mexico.....	Apr. 6, 1959	28,202
New York.....	Nov. 28, 1958	38,053
North Carolina.....	Jan. 15, 1959	50,000
North Dakota.....	July 20, 1960	6,212
Ohio.....	May 16, 1959	6,705
Oklahoma.....	Feb. 24, 1959	50,000
Oregon.....	Mar. 27, 1959	50,000
Pennsylvania.....	Nov. 25, 1958	20,386
Rhode Island.....	Nov. 7, 1958	50,000
South Carolina.....	Jan. 20, 1959	43,525
South Dakota.....	June 22, 1959	27,590
Tennessee.....	Feb. 3, 1959	14,403
Texas.....	Dec. 23, 1958	50,000
Utah.....	Jan. 6, 1959	50,000
Vermont.....	Feb. 26, 1959	7,885
Virginia.....	June 17, 1959	11,605
Washington.....	July 31, 1959	
West Virginia.....	Oct. 29, 1958	1,650
Wisconsin.....	Feb. 11, 1959	10,000
Wyoming.....	Sept. 4, 1959	15,000
Guam.....	June 29, 1959	25,000
Puerto Rico.....	Nov. 7, 1960	
Virgin Islands.....	Sept. 23, 1959	
	June 2, 1959	13,750

<sup>1</sup> As of Jan. 1, 1961.

<sup>2</sup> Indiana and Canal Zone had not submitted plans and Louisiana's official plan was pending approval as of January 1, 1961.

Note.—Because of rounding, detail may not add to total.

# Appendixes



## Appendix A

### NATIONAL DEFENSE EDUCATION ACT OF 1958

Public Law 85-864  
85th Congress, H.R. 13247

#### TITLE X — MISCELLANEOUS PROVISIONS

##### IMPROVEMENT OF STATISTICAL SERVICES OF STATE EDUCATIONAL AGENCIES

SEC. 1009. (a) For the purpose of assisting the States to improve and strengthen the adequacy and reliability of educational statistics provided by State and local reports and records and the methods and techniques for collecting and processing educational data and disseminating information about the condition and progress of education in the States, there are hereby authorized to be appropriated for the fiscal year ending June 30, 1959, and each of the three succeeding fiscal years, for grants to States under this section, such sums as the Congress may determine.

(b) Grants under this section by the Commissioner shall be equal to one-half of the cost of State educational agency programs to carry out the purposes of this section, including (1) improving the collection, analysis, and reporting of statistical data supplied by local educational units, (2) the development of accounting and reporting manuals to serve as guides for local educational units, (3) the conduct of conferences and training for personnel of local educational units and of periodic reviews and evaluation of the program for records and reports, (4) improving methods for obtaining, from other State agencies within the State, educational data not collected by the State educational agency, or (5) expediting the processing and reporting of statistical data through installation and operation of mechanical equipment. The total of the payments to any State under this section for any fiscal year may not exceed \$50,000.

(c) Payments with respect to any program of a State educational agency under this section may be made (1) only to the extent it is a new program or an addition to or expansion of an existing program, and (2) only if the State plan approved under subsection (d) includes such program.

(d) The Commissioner shall approve any State plan for purposes of this section if such plan meets the requirements of section 1004 (a) and sets forth the programs proposed to be carried out under the plan and the general policies to be followed in doing so.

Approved September 2, 1958.

## Appendix B

### Regulations: Section 1009 of Title X NATIONAL DEFENSE EDUCATION ACT OF 1958

#### PART 140—FEDERAL ASSISTANCE FOR IMPROVEMENT OF STATISTICAL SERVICES OF STATE EDUCATIONAL AGENCIES

*Part 140 establishes regulations for the administration of section 1009 of the National Defense Education Act of 1958, as amended, 72 Stat. 1605, 20 U.S.C. 589.*

Part 140 reads as follows:

#### Subpart A—Definitions

Sec.  
140.1 Definitions.

#### Subpart B—State Plans

140.2 The State plan.  
140.3 New programs and additions to or expansions of existing programs.  
140.4 State agency for administration.  
140.5 Authority of State agency.  
140.6 Custody of funds.  
140.7 Fiscal administration.  
140.8 Reports.

#### Subpart C—Federal Financial Participation and Payment

140.9 Federal participation.  
140.10 Proration of costs.  
140.11 Effective date of plan.  
140.12 Use of State rule in determining the fiscal year's allotment to which an expenditure is chargeable.  
140.13 Annual estimates and financial reports.  
140.14 Provisions for payment.  
140.15 Effect of payments.

AUTHORITY: §§ 140.1 to 140.15 issued under secs. 1001, 1009, 72 Stat. 1602, 1605, 20 U.S.C. 581, 589.

#### Subpart A—Definitions

§ 140.1 Definitions.

As used in this part:

- (a) "Section 1009" means section 1009 of the National Defense Education Act of 1958, Public Law 85-864, as amended (72 Stat. 1605), 20 U.S.C. 589.
- (b) "State" means a State, Puerto Rico, the District of Columbia, the Canal Zone, Guam, or the Virgin Islands.

(c) "Commissioner" means the United States Commissioner of Education, Department of Health, Education, and Welfare, or his delegates.

(d) "Department" means the Department of Health, Education, and Welfare.

(e) "State educational agency" or "State agency" means the State board of education or other agency or officer primarily responsible for the State supervision of public elementary and secondary schools, or, if there is no such officer or agency, an officer or agency designated by the governor or by State law.

(f) "Educational statistics" means the information, facts, and data concerning education in public and nonpublic educational institutions which are recorded in and reported by State or local systems of records and reports, or both, for the purpose of reflecting the condition and progress of organized education in the State.

(g) "State plan" or "plan" means the document or documents submitted by a State for approval by the Commissioner to comply with the requirements for participation under section 1009.

### Subpart B—State Plans

#### § 140.2 The State plan.

(a) *Purpose.* A basic condition for the payment of Federal funds to a State for improvement of statistical services of State educational agencies is the submission of a State plan meeting the requirements of section 1009. This plan shall include a description of the present educational statistical activities in the State educational agency and of the program(s) proposed by the State educational agency for improving the State and local statistical services, and the general policies and procedures to be followed in so doing, except that, in cases where the plan provides for an evaluation of the present educational statistics program, the submission of a description of the present program, in connection with the report of such evaluation when completed will be accepted as a substitute for the description in the State plan. The plan shall clearly show how each program under the plan is a "new program" or "an addition to an existing program" or "an expansion of an existing program" within the meaning of § 140.3. The description of each of the State agency programs shall set forth the scope of the agency activities and arrangements to be undertaken in carrying out such programs. The plan, when approved by the Commissioner, shall constitute the basis on which Federal grants will be made, as well as a basis for determining the propriety of State and local expenditures in which Federal participation is requested.

(b) *Submission.* The State plan and all amendments thereto shall be submitted to the Commissioner for approval by a duly authorized officer of the State agency. The plan shall indicate the official or officials authorized to submit plan material.

(c) *Amendment.* The administration of the programs must be kept in conformity with the approved State plan. Whenever there is any material change in the content or administration of a program, or when there has been a change in pertinent State law or in the organization, policies, or operations of the State educational agency affecting a program, under the plan, the State plan must be appropriately amended.

(d) *Certificate of the State educational agency.* The State plan and all amendments thereto must include as an attachment a certificate of the officer of the State educational agency authorized to submit the State plan to the effect

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(1) that the plan or amendment has been adopted by the State agency and that the plan, or plan as amended, will constitute the basis for operation and administration of the program(s) in which Federal participation under section 1009 will be requested and (2) that the program(s) is (are) either new program(s) or additions to or expansions of one or more existing programs within the meaning of § 140.8.

(e) *Certificate of the State Attorney General.* The plan must also include as an attachment a certificate of the State's Attorney General to the effect that the State agency named in the plan is the "State educational agency" as defined in § 140.1(e) which has authority under State law to submit the State plan and to carry out the program(s) described therein as the sole State agency responsible for the administration of the plan, and that all of the plan provisions are consistent with State law. If an official, other than the Attorney General of the State, is designated by State law to advise the State educational agency on legal matters and if the rulings of such official have the same legal effect with respect to the agency as rulings of the Attorney General have with respect to agencies advised by him, the certification may be made by such official.

§ 140.8 New programs and additions to or expansions of existing programs.

(a) *New Programs.* A new program is a plan of operations and the activities to carry out such plan in which none of the principal elements involved were being employed before the program was initiated and which does one or more of the following: (1) Collects and disseminates educational information from a category of sources not before used, e.g., from kindergartens, libraries, junior colleges or private schools, the same types of information hitherto collected only from public schools, grades 1 through 12; or (2) collects, processes, or disseminates information of a new type which requires a different technique of collection, processing, or analysis, or a different type of publication, to make it useful for educational purposes, e.g., information concerning the causes of absence, or physical and health characteristics of children, or the effects of one or more of these on educational progress, collected in a State where only classroom and curricular information had been analyzed and disseminated before; or (3) by adopting a new and different type of analysis or processing, makes use of information hitherto collected for an entirely new and different purpose, e.g., the use of electronic equipment to analyze and show the relationship between educational progress and attendance, or health, or physical training, or participation in organized sports, or certain types of physical handicaps of children, or the social or educational background of teachers, etc. An evaluative study undertaken in connection with the State plan to determine ways of improving the State agency's program for providing educational statistics may also qualify as a new program within the meaning of this section.

(b) *Addition or expansion.* An addition to or expansion of an existing program is a plan of operations, and the activities to carry out such plan, which involve additional expenditures by the State educational agency for statistical services of the types set forth in section 1009(b) of the Act, over and above those hitherto expended for like services, and does one or more of the following: (1) Provides for collecting and disseminating increased amounts of data about educational areas in which the agency is already making data available; (2) provides for recording, collecting, or disseminating types of

data about educational areas in which such types of data are not available; (3) increases the usefulness of educational data by making it more current; (4) increases the usefulness of educational data by improving its quality; or (5) increases the usefulness of collected data through improved analysis. (See also § 140.10.)

(c) *Time basis for measurement.* Whether a program is "new" or an "addition to" or "expansion of" an existing program will, for the fiscal year 1959, be measured against the activities being carried on by the State educational agency prior to September 2, 1958. For programs submitted for approval after fiscal year 1959, such improvement or increase will be measured against the activities being carried on by the State educational agency prior to the first day of the fiscal year in which the program was submitted for approval.

#### § 140.4 State agency for administration.

(a) *Designation.* The State plan shall give the official name of the agency which will be the sole agency for administering the plan. Such agency shall meet the criteria set forth in § 140.1(e) defining "State educational agency."

(b) *Organization.* The State plan shall indicate the administrative unit(s) within the State agency that will be responsible for administering the program(s) set forth in the plan.

#### § 140.5 Authority of State agency

The State plan shall set forth the authority of the State agency under State law to submit the State plan and to administer the program(s) set forth therein. Citations to, or copies of, all directly pertinent statutes and interpretations of them by the appropriate State officials, whether by regulations, policy statements, opinions of the Attorney General, or court decisions, shall be furnished as a part of the plan. All copies must be certified as correct by an appropriate official.

#### § 140.6 Custody of funds.

The State plan shall designate the officer who will receive and provide for the custody of funds to be expended under applicable State laws and regulations on requisition or order of the State agency.

#### § 140.7 Records.

(a) *Fiscal administration.* The State plan shall describe the fiscal administration of the plan. Such administration shall be conducted in accordance with applicable State laws, policies, and procedures, which shall be identified in the plan or set forth in an appendix. Accounts and supporting documents relating to any program involving Federal participation shall be adequate to permit an accurate and expeditious audit of the program.

(b) *Disposal of records.* The State educational agency shall provide for keeping accessible and intact all records supporting claims for Federal grants or relating to the accountability of the grantee agency for expenditure of such grants and relating to the expenditure of matching funds: (1) For three years after the close of the fiscal year in which the expenditure was made by the State educational agency; or (2) until the State agency is notified that such records are not needed for program administration review; or (3) until the State agency is notified of the completion of the Department's fiscal audit, whichever is later.

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(c) *Questioned expenditure.* The records involved in any claim or expenditure which has been questioned shall be further maintained until necessary adjustments have been made and the adjustments have been reviewed and cleared by the Department.

(d) *Records of equipment.* Where nonconsumable equipment which costs \$10 or more per unit is purchased by the State with Federal financial participation, inventories and other records supporting accountability shall be maintained until the State agency is notified of the completion of the Department's review and audit covering the disposition of such equipment.

### § 140.8 Reports.

The State plan shall provide that the State agency will participate in such periodic consultations and will make such reports to the Commissioner, at such time, in such form, and containing such information as the Commissioner may consider reasonably necessary to enable him to perform his duties under section 1009, and will comply with such provisions as he may find necessary to assure the correctness and verification of such reports.

## Subpart C—Federal Financial Participation and Payment

### § 140.9 Federal participation.

Section 1009 authorizes payment of one-half (not to exceed \$50,000 for each fiscal year) of the total sum expended by the State under the State plan. Such expenditures may include salaries and wages, purchase of equipment, rental of equipment, conferences and workshops, travel, printing and reproduction, and other expenditures that may be readily identified as having been made pursuant to the State plan and within the provisions and limitations of section 1009 and the regulations in this part. Federal financial participation will be available in expenditures made in accordance with the provisions of the State plan and the applicable State laws, rules, and regulations, and standards governing the use of State funds.

### § 140.10 Proration of costs.

Federal participation is available only with respect to that portion of any expenditure which is attributable to the new, added, or expanded aspects of a program under the State plan. The State plan shall specify the basis for identifying and prorating expenditures not attributable solely to such plan activities.

### § 140.11. Effective date of plan.

Since the Federal Government participates only in amounts expended under the State plan, there can be no Federal participation in any expenditures made before the plan is in effect. For the purposes of this section the earliest date on which a plan may be considered to be in effect is the date on which it is received in substantially approvable form by the Commissioner.

### § 140.12 Use of State rule in determining the fiscal year's allotment to which an expenditure is chargeable.

Each allotment to a State under section 1009 of the Act is made with respect to a fiscal year commencing on July 1 and ending the following June 30. State laws and regulations shall be followed by the States in determining to which fiscal year an expenditure by the State educational agency is chargeable for the purpose of earning the allotment. Each State, therefore, shall

use the accounting basis (cash, accrual or obligation) applicable to its State accounting.

**§ 140.13 Submission of annual estimates and reports.**

(a) For each Federal fiscal year, the State agency shall submit upon forms prescribed and in accordance with procedures established by the Commissioner (1) a description of the specific activities to be carried out for that year in connection with each program set forth in the plan, and (2) a statement of the estimated sources of funds and expenditures to be made in carrying out the activities for the fiscal year. Expenditures which deviate from the details of the estimate will not be precluded from Federal participation if otherwise made in accordance with the approved plan and the regulations in this part.

(b) Following the end of each Federal fiscal year, the State agency shall submit upon forms prescribed and in accordance with procedures established by the Commissioner a report of the total expenditures and obligations made under the plan during the fiscal year.

**§ 140.14 Provisions for payment.**

Payments will be made in advance installments to States with approved plans on the basis of the annual estimates described in § 140.13. Adjustments of underpayments or overpayments or interest earned on Federal funds for any fiscal year will be made after the end of the fiscal year. In settling the accounts subsequent to the close of the fiscal year 1962, the State shall refund to the Commissioner any overpayment which may have been made under section 1009, or any unadjusted interest earned on Federal funds.

**§ 140.15 Effect of payments.**

Neither the approval of the State plan nor any payment to the State pursuant thereto shall be deemed to waive the right or duty of the Commissioner to withhold funds by reason of the failure of the State to observe, before or after such administrative action, any Federal requirements.

Dated: December 23, 1959.

[SEAL]

WAYNE O. REED,  
*Acting U. S. Commissioner  
of Education.*

Approved: December 28, 1959.

ARTHUR S. FLEMMING,  
*Secretary.*

[F.R. Doc. 59-11140; Filed, Dec. 30, 1959; 8:45 a.m.]