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ABSTRACT

The gap in the available information on the state of American Education is discussed. This inadequacy is traced to two causes: (1) Data are not organized in ways that would facilitate policy formation and (2) Data are scattered among a variety of agencies. Formulating effective public policy for the support of elementary and secondary education requires a knowledge of (1) the demand for various kinds of educational services, (2) estimates of the costs of those demands, (3) a conception of equity in the distribution of educational services and of the costs of those services, and (4) a continuous monitoring and evaluation of the financial and educational impact of federal programs in particular, and of American education more generally. To develop recommendations for improving the availability of information to those interested in questions of educational finance policy, the availability and usefulness of information on the important information on the nation's educational agenda were examined and catalogued through interviews, questionnaires, and staff analysis. The results of this research indicate that the present system of educational information fails to serve the requirements of those who need timely, reliable, and relevant information about the nation's educational problems. It is recommended that the Office of Education produce this information. (For related document, see ED 058 473.) (Author/CK)

IMPROVING INFORMATION SYSTEMS FOR EDUCATIONAL POLICY MAKING

Prepared by
Policy Institute,
Syracuse University Research Corporation

Submitted to The President's Commission on School Finance

THIS IS ONE OF SEVERAL REPORTS PREPARED FOR THIS COMMISSION. TO AID IN OUR DELIBERATIONS, WE HAVE SOUGHT THE BEST QUALIFIED PEOPLE AND INSTITUTIONS TO CONDUCT THE MANY STUDY PROJECTS RELATING TO OUR BROAD MANDATE. COMMISSION STAFF MEMBERS HAVE ALSO PREPARED CERTAIN REPORTS.

WE ARE PUBLISHING THEM ALL SO THAT OTHERS MAY HAVE ACCESS TO THE SAME COMPREHENSIVE ANALYSIS OF THESE SUBJECTS THAT THE COMMISSION SOUGHT TO OBTAIN. IN OUR OWN FINAL REPORT WE WILL NOT BE ABLE TO ADDRESS IN DETAIL EVERY ASPECT OF EACH AREA STUDIED. BUT THOSE WHO SEEK ADDITIONAL INSIGHTS INTO THE COMPLEX PROBLEMS OF EDUCATION IN GENERAL AND SCHOOL FINANCE IN PARTICULAR WILL FIND MUCH CONTAINED IN THESE PROJECT REPORTS.

WE HAVE FOUND MUCH OF VALUE IN THEM FOR OUR OWN DELIBERATIONS. THE FACT THAT WE ARE NOW PUBLISHING THEM, HOWEVER, SHOULD IN NO SENSE BE VIEWED AS ENDORSEMENT OF ANY OR ALL OF THEIR FINDINGS AND CONCLUSIONS. THE COMMISSION HAS REVIEWED THIS REPORT AND THE OTHERS BUT HAS DRAWN ITS OWN CONCLUSIONS AND WILL OFFER ITS OWN RECOMMENDATIONS. THE FINAL REPORT OF THE COMMISSION MAY WELL BE AT VARIANCE WITH OR IN OPPOSITION TO VIEWS AND RECOMMENDATIONS CONTAINED IN THIS AND OTHER PROJECT REPORTS.

IMPROVING INFORMATION SYSTEMS FOR EDUCATIONAL POLICY MAKING

A Report Prepared for the
President's Commission on School Finance

by

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December, 1971

Educational Finance and Governance Program

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CHAPTER I

INFORMATION FOR EDUCATIONAL POLICY MAKING: A NATIONAL PROBLEM

American public schools--elementary and secondary--are directed and financed through a complex web of relationships that intermingles local, state, and federal levels of government; public and private agencies; non-profit and profit-making enterprises; university and religious institutions; professional educators and private citizens. Picking one's way through this labyrinthine system is an immensely challenging undertaking, for few maps are available to assist those charged with formulating educational policy. Indeed, what guidelines do exist are often more misleading than helpful. Signposts along the way labeled "Local control of education," "lay direction of professionals," and "the spector of federal control" have become symbols for myopic myths that oversimplify the complex relationships through which public education in the United States is governed and supported. Such symbols act as deterrents to understanding the over riding policy issues in education about which basic decisions must be made.

Financing of public elementary and secondary education for the nation as a whole is approximately 52 percent local, 41 percent state,

and 7 percent federal, but there is great variation in these proportions among the districts of a state and between the states of the nation despite statutory categories, the intentions of the United States Office of Education, and of state education departments. The source of funding is often operationally irrelevant to resourceful school district superintendents.

Administrative control over various aspects of school activities is similarly difficult to disentangle. For example, while curriculum determination is one of the mandated responsibilities of state and local education agencies, the impact of decisions by text book manufacturing companies or state teachers colleges tends to be far more influential than that of the officially designated governing boards.

While understanding the workings of this delicate balance between centralization and decentralization, homogeneity and heterogeneity, public and private interests, citizen group and professional organizations may be exceedingly difficult, it is, we believe, crucial. Substantial improvements in education and further movement toward equal educational opportunity can come only from those who grasp both the problems and the opportunities that lie buried in the intricate system of American public schooling.

In recent years, the Federal government has begun to play a significant role in American education. As a major recent study of the administration of new Federal programs puts it:

> In the scant period of 13 years (1954-67), however. a change has occurred. The Federal government's interest in

stimulating change and improving quality in public education at the pre-collegiate level has been increasingly visible in four fields: (1) desegregation; (2) education related to defense and to vocations; (3) aid to research; and (4) education of the economically and culturally disadvantaged, and of the handicapped. Federal activity--judicial, legislative, and executive--in these four areas has unquestionably affected the traditional, decentralized autonomies of American education. This is especially true when one adds the fact that Federal aid to parochial school children was an important corollary, even a precondition, of many of these new Federal thrusts, and that Supreme Court decisions on the place of religion in the schools had widespread impact. Quality and equality of opportunity in education have become matters of national concern. All levels of government, and a variety of branches and agencies at each level, are now deeply involved in a complex and uneasy partnership whose collective aims are transforming educational priorities and methods. Education, like so many other governmental services, has now become involved in a "marble cake," not a "layer cake," of federalism.[1]

Besides managing the vastly expanded Federal role as change agent in the substance of public education, the United State Office of education has had a responsibility since its founding for charting "the condition and progress" of America's schools.

How effectively the Federal government has pursued these dual roles as both catalyst and chronicler of change is open to serious question. General accord on the part of those concerned about American education could,however,be found on the need for improvement in the quality of Federal education decision making and implementation. This report attempts to pinpoint one of the major hindrances to securing a wiser and more effective Federal role--the absence of

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[1] Stephen K. Bailey and Edith K. Mosher, ESEA: The Office of Education Administers a Law, Syracuse: Syracuse University Press, 1968, p.2.

appropriate information to undergird educational policy making.

The problem: An information gap

Participants in educational policy making -- be they public officials, researchers, educators, or interested citizens -- are handicapped by deficiencies in the available information on the state of American education. The data base that should be drawn upon in evaluating current policies and in designing new programs is woefully inadequate. This inadequacy may be traced to two causes: first, and most important, data are not organized in ways that would facilitate policy formulation, and second, data are scattered among a variety of agencies. The problem is particularly acute in connection with the development and implementation of national priorities in education. A few questions that policy makers might reasonably raise will illustrate some of the shortcomings of current educational statistical reports.

If one seeks to know the total fiscal impact of all relevant federal programs on education in particular school districts, data are unavailable in any one place or in any single report. Similarly, if one would like to know how much federal support is being provided for urban school districts, or impoverished rural districts, or districts with high proportions of non-white students, one cannot find information in accessible form. Suppose one were interested in designing an educational aid formula which would take into account the total services -- both educational and for general governmental

functions -- being supported out of a given community tax base. Again, such data must currently be pieced together from a variety of sources. Statistics on differential resource allocations within school districts have not heretofore been collected, yet without them the fiscal incidence of educational aid programs cannot be determined. Other important areas of information shortage include (1) the educational impact (the achievement outputs) of the schools, and (2) the status of education and finance in the non-public schools of the nation.

The failure to organize data for policymaking

Policymakers must of necessity think in terms of classes of objects and objectives. At present we do not provide them with the appropriate categories of data. Formulating effective public policy for the support of elementary and secondary education requires a knowledge of (1) the demand for various kinds of educational services, both at present and in the foreseeable future; (2) estimates of the costs of those varied demands; (3) a conception of equity in the distribution both of educational services and of the costs of those services; (4) a continuous monitoring and evaluation of the financial, and to the extent feasible, the educational, impact of federal programs in particular and of American education more generally. Unfortunately, data about education is frequently presented in undigested, unaggregated form by the U. S. Office of Education, leaving those who are not themselves experienced manipulators of statistics at a loss to understand the

significance of all the painstakingly collected and refined information.

In short, there is currently little attempt to present and interpret information in policy-oriented categories like those above. Much of the collection of statistical material on education is dominated by a laudable desire for accuracy and comprehensiveness. Equally needed conceptual values, notably the relation of data to issues of public policy, however, are not served. Overall, the fit between the needs of those who try to think and plan systematically for the future of American education and the statistical tools at their disposal is faulty. The hit or miss quality of many of our federal programs and the hunch-packed nature of much of our thinking on educational problems is traceable in large part to the inability of policymakers to draw upon relevant information as they pursue their deliberations.

The scatter of data

Besides the absence of a policy orientation in data aggregation, a second reason for the inadequacy of currently available information has to do with its dispersed quality. Among the Federal agencies that currently collect, aggregate, and maintain information of significance to educational policy formulation are the United States Office of Education, the Office of Economic Opportunity, the Departments of Labor and Commerce, the Advisory Commission on Intergovernmental Relations, the Census Bureau, and the Office of Management and Budget. State educational agencies and regional associations are additional sources of information, as are private organizations

like the National Education Association and the National Catholic Education Association. The fact that multiple reporting and analytic centers exist is not itself a problem. Indeed, it is not only an inevitable situation, it is a positively beneficial one. The real problem is that no single agency has effectively undertaken the task of providing an overview of the entire educational landscape.

In regard to Federal programs in particular, the USOE has largely limited the sweep of its vision to those programs and those data sources administered by the Office. Thus data on early childhood education expenditures is scarce at NCES. Shortages of data on aspects of state and local finance relevant to the need and capacity for educational support has come about because data collected for the Census of Governments and analyzed by the Advisory Commission on Intergovernmental Relations has seldom been drawn upon by the Office of Education. In short, the responsibility the Office of Education has carried since its founding in 1867 -- "to collect such statistics and facts as should show the condition and progress of education" -- has been subjected to a restrictive and self-defeating interpretation on the basis of jurisdictional lines that are unrelated to the substance of its mandate.

Conclusions

In order to develop recommendations to improve the information available to those interested in questions of educational finance policy, we have examined and catalogued both the availability and the usefulness

of information on the important questions on the nation's educational agenda through interviews, questionnaires, and staff analysis. We have met with local, state, and national officials of both executive and legislative branches, and have studied reports of previous panels which have looked into the information gap in education. In addition, we conducted a two-day conference of public officials, academic researchers and staff of the President's Commission devoted to the problems of developing a comprehensive education information system (see Appendix E). Finally, we conducted a survey of the representatives to the Committee on Educational Data Systems (the analysis of that survey can be found in Appendix A).

On the basis of those research activities, our major conclusion is that the present system of educational information fails to serve the requirements of those who need timely, reliable and relevant information about the nation's educational problems. From the policy-makers viewpoint, this failure has four critical dimensions:

1. Information is not organized and presented within a policy-relevant framework. There is little indication that Federal education data collection begins with the most basic of questions: <u>data for and about what?</u>
2. Information that is collected and disseminated is rarely analyzed. As a result, USOE information typically is presented according to the alphabetical order of the states or the enrollment size of school

districts, two characteristics that usually have little relevance to the major issues facing the nation.

3. The format and presentation of the information as well as long delays in publication discourage use by policy-makers.
4. Numerous gaps exist in the availability of data required to answer questions relative to the education agenda of the 1970's. Such gaps occur for three reasons.

   a. Suitable comparisons from district to district or state to state are often not available in any form. Examples include pupil achievement data, cost benefit data, and "needs" data in some basic instructional areas.

   b. Data available for some aggregations of jurisdictions -- e.g., municipalities and states -- are not available for other aggregations or jurisdictional levels. This is one of the principle reasons why it is so difficult to relate fiscal data about education to data about other state and municipal services.

   c. To be useful to policymakers an item of information must be presented in relationship

to another item to create an index which permits analysis and conclusions, e.g. number of Title I eligible pupils per total district enrollment. As often as not, publications present raw data which are of little use to policymakers.

Several additional conclusions about our national education information system should also be noted:

5. State information systems have expanded and improved dramatically in the past decade, largely as a result of the availability of federal funds (NDEA Title X and ESEA Title V). Great variations continue to exist among states in both ability and willingness to provide the Federal government with data.

6. A number of states are rebelling against information requests from Washington citing duplications, lack of established need for information and the high cost of collecting information not routinely collected.

7. The National Center for Educational Statistics (NCES) has made major efforts to improve data collection procedures in recent years (since its inception in 1965). However, the Center is severely limited in that almost 90 percent of elementary and secondary education data are collected by program management bureaus of USOE, Office of Civil Rights (HEW), Bureau of the Census, and the Department of Agriculture. Though interagency cooperation is improving, greater

coordination is in order.

8. NCES has by far the smallest budget of all major statistical agencies in the Federal government. Given the pressing need for relevant and timely information and the multiplicity of problems associated with complete dependence upon state and local education agencies, the current budget of $5.7 million is grossly inadequate.

Recommendations

The final chapter of this report contains a series of detailed recommendations. We believe, however, that the following three suggestions are the most basic and seminal, and we believe that it may be useful to present them at this point.

1. Information on education which explains trends in (1) the demand for education, (2) its costs, (3) conceptions of equity in the allocation of educational services and costs, and (4) the impact, both fiscal and, to the extent possible, educational of Federal programs should be produced by an analytical staff located in the National Center for Educational Statistics of the United States Office of Education. The function of the staff would parallel the activities of such agencies as the Bureau of Labor Statistics and the Office of Business Economics. While the Center has made important progress in upgrading its statistical competence in the last few years, more adequate analysis will require the addition of personnel trained in demography, economics, education, public finance, sociology and other

areas of social science expertise. An editorial staff attached to NCES should insure readability and clarity of format in NCES publications.

2. To guide improvement in NCES information gathering, analysis and dissemination, an advisory committee should be created. Composed of recognized scholars and other policy-oriented users of educational data, the committee should be charged with producing an annual report to the Congress, the Secretary of Health, Education and Welfare and to the Commissioner of Education on (1) the important trends in the condition and progress of American education and (2) the state of the Office's information collection, analysis, and dissemination. Such a committee, with a staff of its own, would parallel in a general way the functions provided by such committees as the Advisory Commission on the Education of Disadvantaged Children. Specifically, it would provide the immensely useful function in regard to data services of asking the essential question: "Information for what?" Ambitious organizational changes like those envisioned in the current proposal of USOE, the Common Core of Data for the Seventies, will serve a useful function only as a body of analytically and policy-oriented people influence the selection of items to be collected and the manner in which they are organized and presented.

3. Ultimately, however, independent, in-depth analysis of the state of American education and educational finance will come only from an independent and distinguished body roughly comparable to the National Bureau of Economic Research or the Brookings Institution.

Funded, perhaps, by the National Institute of Education, major foundations, and the Education Commission of the States, such a body could develop the prestige and competence to attract distinguished senior scholars and the most able junior colleagues. Drawing upon the data of NCES, private interest groups, and university based research; cutting across jurisdictional levels both horizontally among the agencies of the national government and vertically among state education agencies and local education agencies, such an agency is the primary hope we have for the development of the all important capacity to provide critical analyses and evaluations of the information collected about the condition and progress of American education.

Organization of the Report

This report is in six chapters. In Chapter II the data collection, analysis and dissamination programs of the United States Office of Education (USOE) are placed in historical perspective. Eugene McLoone, professor of economics of education at the University of Maryland and principal consultant for our project, traces the effort of USOE since 1867 to fulfill its mandate to report on the condition and progress of American education. In Chapter III we examine the major producers of information about education, the USOE and the fifty state education agencies. Chapter IV is devoted to an analysis of the needs and concerns of consumers of educational data: Federal and state legislative and executive branch policy-makers, researchers and foundations, educational interest groups and education industries.

The policy issue framework that we propose be employed to determine which data to collect, analyze and disseminate are developed in Chapter V. Finally, Chapter VI is devoted to a summary of major conclusions and our recommendations which are designed to provide the Federal government with the capability to meet the information needs of policy-makers.

A supplementary document to this Report has been prepared by the Policy Institute. That supplement is an inventory of data by source and collection level currently available. Data items are organized according to policy issue framework developed in Chapter V.

CHAPTER II

THE HISTORICAL PERSPECTIVE OF DATA GATHERING AND REPORTING IN THE UNITED STATES OFFICE OF EDUCATION

"Section 1. - There shall be established, at the city of Washington, a Department of Education, for the purpose of collecting such statistics and facts as shall show the condition and progress of education in the several states and territories, and of diffusing such information respecting the organization and management of schools and school systems, and methods of teaching, as shall aid the people of the United States in the establishment and maintenance of efficient school systems, and otherwise promote the cause of education throughout the country."

Thus the organic act of establishing the United States Office of Education (USOE) made the collection, analysis and dissemination of statistics and facts on the condition and progress of education the first purpose of the Office. In this chapter we examine the manner in which that purpose has been served over the past 104 years. Particular attention is given to the relationships between emerging educational policy issues throughout the period and USOE studies and publications. The principal question is, how adequately has the Office over-time fulfilled the mandate to report on the condition and progress of education?

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[1] This chapter was prepared for the Policy Institute, SURC by Eugene Mcloone, Professor of Economics and Education at the University of Maryland.

Of major importance to an understanding of the data management problems that continue to face USOE is the discussion of the simultaneous occurence in the mid-1960's of three events which diverted resources from statistical programs: reorganization of the Office, implementation of the Elementary and Secondary Education Act (ESEA), and production of the Coleman Report ("Equality of Educational Opportunity").

Data collection: the continuing struggle

Throughout the history of the Office, problems of data collection as well as widely divergent attitudes within the education profession about the needs to be served by such information have hindered the achievement of the primary USOE mandate.[1] As early as 1868, when the U.S. Office of Education was slightly more than a year-and-one-half old, the Secretary of the Interior[2] said that there was "no necessity of knowing anything whatever about education." In contrast, Henry Barnard, the first Commissioner of Education in the United States, had worked on his own initiative since the early 1830's to obtain data on the status of education and the educational attainment of the American people. He succeeded in persuading the U.S. Bureau of Census to include questions on literacy in the 1840 Census of Population. Representative James A. Garfield of Ohio,

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1 One need only read the 1963 report of the Advisory Panel on Education Statistics to find that the problems continue into the present. The 1963 Report calls for a permanent advisory group rather than temporary groups, citing as evidence the slight success of the 1957 and 1960 temporary panels. Report of the Advisory Panel on Educational Statistics OE-20061, December, 1963.

2 For much of its history, the Office of Education was part of the Department of Interior.

who was to become the twentieth President of the United States, impressed by the data from the 1880 Census of Population, joined the proponents of a greater effort to collect information about education in the several states. Garfield wanted information to show up the laggards and thus act as a stimulus toward improving conditions in the "backward" states. Barnard had sought information for the same purpose as well as for collecting and presenting facts about the number and types of schools, teachers, teacher training, teaching conditions and teacher requirements. The contrasting views of Barnard and Garfield on the one hand and the Secretary of Interior on the other, continue to exist today, more than a ntury later.

Until the early 1900's information about the condition and progress of American education was extremely limited. The Annual Report of the Commissioner was the single source of data. Such data were obtained from questionnaires and surveys mailed to State Departments of Education and selected local school districts.

About 1905, the United States Office of Education embarked upon the development of an information system about education in each of the states. Central to this operation were specialists in education who had developed a close working relationship with personnel in State Education Departments and local districts. This specialist approach to the Office's relationships with the states in general and the collection and dissemination of data about American education in particular characterized OE operations until the mid-1960's. The Office published results of special surveys, state surveys and analytical reports. In addition, information was diffused through the personal consultation function of the specialists,

who also collected data during their visits to states and local school districts.

Thus, in 1928, L.A. Kallback, Secretary of the Interior, could state to the meeting of state representatives on Uniform Statistics that the state representatives in the audience "know the difficulties in obtaining promptly accurate and comparable statistics." He and Harry Phillips -- then the chief of data collection and a 30 year veteran of educational statistics -- could list the problems of the U.S. Office of Education as (1) "delays in reporting" for which "serious difficulties exist in the initiating sources" (The Office then, as now, published data as fast as the slowest reporting unit permits); (2) "no ascertainment of the needs of the users"; (3) "no anticipation of new needs" and (4) "lack of planning and scheduling of statistical reporting and publication."[1] The generalized need for data that is timely, accurate and relevant has continued until the present.

This is not to say that important publications have not been produced. On the contrary, by the 1960's the U.S. Office of Education had nine series on a periodic basis devoted to public elementary and secondary education, as well as one on higher education. The Biennial Survey of Education which was begun in 1917 covered the number and type of schools and school districts, staff, enrollments, and finances, including both revenues and expenditures. Some of the information was available for states; more detailed information was available for large and medium size

[1]Quotes are from the typescript of the morning session of December 11, 1928 on Uniform Statistics. The final document of the committee of state representatives was printed as Vol. V. No. 5 Research Bulletin of the National Education Association entitled School Records and Reports, 1928.

cities, rural schools and county school districts. Some data were collected and published annually; others bi-annually, or once every five or ten years. Special publications dealt with the following topics:

- school district reorganization
- characteristics of school board members
- school insurance
- children's body measurements
- specialized facilities and equipment
- functions of state departments of education
- financing school facilities
- state-aid programs
- organization of elementary and junior high schools
- secondary school innovations
- legal requirements for certification
- teacher turnover
- high school dropouts

In addition to the vital statistics, special reports and surveys, reports of the grant programs of the U.S. Office of Education such as Vocational Education (VEA), School Assistance to Federally Affected Areas (SAFA), and the National Defense Education Act (NDEA), produced information related to the administration and evaluation of each program. In addition, the distribution of reports and publications to the education community increased threefold during this period. The highpoint of these activities was reached in the early 1960's just after the passage of NDEA in 1958 and before ESEA in 1965.

Data gaps - a persistent problem

Although the sixty year period from 1905 to 1965 was characterized by the development of the specialist system in the U.S. Office of Education, which provided a standard series of statistical publications and periodic reports on current issues, gaps in information useable for policy making were almost constant. Special Congressional appropriations for studies, and

research efforts by private foundations, by individuals or by professional associations sought to eliminate the gaps. Often funds available from one source did not see a study to completion and another group had to finance the effort. On numerous occasions the U.S. Office of Education sought to continue the task begun by others, but more often than not was unable to see it through to completion.

The shifting and emergence of issues during the period from 1870 to 1940 were reflected in publications of the Office.[1] The literacy level of the population and the number of college graduates, listed by state and the Nation, were obtained from the 1870 Census of Population and published. The decade of the 1870's also saw attention placed on the constitutional provision made by the states for education, as new states were admitted and older states revised consitutions. In 1885, data on personnel, finances, pupils and buildings of large city school systems were collected and published. These city school systems were held up as models to be emulated by other school systems in their respective states. In 1890, Chapter 28 of Volume 2 of the Annual Report of the Commissioner of Education presented educational statistics collected on cities and states, including data from the 1890 Census of Population. The effort was not repeated until George Strayer prepared the 1930 Annual Report. Histories of education, sponsored by individual states, appeared gradually over the period from 1885 on, at widely varying times. Content also varied: sometimes the history gave statistical data, sometimes only higher education was covered, at other times only secondary education was the subject.

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[1] A summary of topics covered in Office of Education publications 1870 through 1939 appears at the end of this chapter.

In 1905, a compendium of state education legislation of the previous biennial sessions of state legislatures was first published by the Office. and continued periodically. The Cubberly Source Book and the "Model Constitution for the State of Osceola" served as an updating of educational finance data for the 1920's that was not done again until the National Educational Finance project began in 1969. Internal documents, similar to those on the borrowing capacity of state and local governments prepared for the Secretary of Health and Education in the late 1950's, for National legislative purpose, are the closest parallel to present government documents. The Research Division of the National Education Association continues this series today under the title Highlights of State Legislation, with additional legal material covered in Pupil's Day in Court and Teacher's Day in Court.

Bulletin #4 of 1909 contained data on educational expenditures and educational salaries. The effort was not repeated until the Biennial Surveys began in 1917. In 1913, attention was directed by bulletins to efficiency measures in the schools and the economical use of time. A special survey in 1914 resulted in bulletins on compulsory attendance laws and their enforcement, schools and employment, the organization of schools, and the organization of state departments of education. In 1915, the subjects of state-instead-of-local financing, utilization of school buildings, and salary payments were examined. In 1916, state pension payments to school employees were subjects of Office publications.

Also in 1916, a school survey of Wyoming was conducted and the following year, a survey of Colorado was conducted and published. These school surveys were the beginning of the specialist effort to assist the states through a comprehensive review of the educational system and its

finances as an aid to the mapping of future policy. The process of conducting a school survey also made the specialists knowledgeable about the conditions in a given state and provided an informal channel for them to share knowledge gained, as well as providing an appreciation of the overall problems to be solved. Such working relationships with educators in the states continued in varying degrees up through the 1960's.

In 1917, Bulletin 22 on the Money Value of Education sought to mobilize additional resources for schools by calling attention to the investment character of educational spending. In 1917, the Office of Education also presented data on practice teaching and superintendents' salaries.

Such special subjects as kindergartens, school legislation, data on crippled children, a special survey of cities, and school district organization attracted attention in 1918. In 1920, a nationwide data collection of principals' salaries was published and in 1921, certification laws and a bulletin on school funding. In 1922, a first was scored when Bulletin #6 presented data on public school finance. In 1923, education efforts by such non-school agencies as the Young Men's Christian Association and the Knights of Columbus were made part of the Biennial Survey. Also data were gathered and published on school transportation and distribution patterns of free textbooks. In 1924, bulletins directed attention to the use of buildings, and the idea of double shifts (or platoon schools) was presented as one possible solution to problems of crowding in large city schools. District consolidation made roads possible and bus transportation received attention. In the same year, a bulletin was published on prison schools.

In 1925, the personnel of State Departments of Education, the Parent-Teachers Associations and Medical Education received bulletin attention. High school graduation, in terms of requirements and members, was examined in 1928, and in 1929 a bulletin appeared on state aid and taxes.

Policy issues since 1920

The state studies of the Educational Finance Inquiry of the 1920's, the Cubberly Source Book, and the early publications of the Research Division of the National Education Association demonstrated the serious gaps in educational data in the form required for policy-making purposes following World War I.

Although the U.S. Office of Education had pioneered state studies with its early histories of education in the states and had conducted studies in Wyoming and Colorado in the middle 1910's, such important questions as appropriate methods of financing for local schools and the organization of school districts and state departments of education had been neglected. With the lessened importance of state endowment funds after 1890 and with the growth of high schools from 1890 on, methods of financing and organizing schools became of continuing interest in the 1920's. The Educational Finance Inquiry struck at the earlier economics presented by Office bulletins in 1913 and later in 1925 in the recommendations for platoon schools.

The Cubberly Source Book went beyond the examination of a few states in the Education Finance Inquiry and did the important basic task of codifying state school laws on attendance; organization of schools

districts and State Departments of Education; local taxes; state aid plans; certification; buildings; and data on assessed valuation, personnel, pupils and retention rates. Cubberly set the basis by comparing the actual situation in a given state with his "ideal" constitution, the statutes and organization for the mythical State of Osceola. In much the same manner that Bulletin 6 of 1922 complemented the studies of the Educational Finance Inquiry, Bulletin 29 of 1929 updated some of the Cubberly data of the early 1920's, and special studies of individual states continued the effort throughout the 1930's.

Also in the 1930's, the Research Division of the National Education Association gathered data on the salaries of teaching personnel, the financial ability and effort of states, state aid plans and taxes used for schools. The major reasons for these independent efforts by NEA were that Office data had large time lags, completeness of coverage varied among the states studied, and there was no effort made to integrate single series into a composite picture for policy purposes. Equally important, of course, was the need of NEA to have such complete data available for use by state and local affiliates.

In the early 1930's, attention was again focused on the incomplete job the U.S. Office of Education had done in analyzing existing data and in collecting data relevant to policy questions by the National Survey of School Finance (NSSF), the National Survey of Secondary Education and the Survey of Educating Minorities. The issues brought forward by NSSF were the variations in ability, effort, and expenditures by school districts both within a given state and among states. In a new approach, the NSSF analyzed sources of educational funds from taxes and by state or local

level; the relative importance of educational revenue and expenditures in the state-local public sector; the organization of school districts; the availability of educational opportunity; and the interrelated behavior of these variables. District-by-district data rather than state totals were sought. Legal descriptions of state aid plans, procedures for reorganization of school districts, and other data similar to that given in the Cubberly Source Book were collected.

NSSF recast data from the Governments Division of U.S. Bureau of Census to answer questions regarding the relative importance of education in state-local public sector and divergence between sources of school finance and the general state-local sector. The issue of Federal aid to education was examined and the devising of distribution formulas for state or Federal grants undertaken. Expenditures for schools were separated to show those areas controllable or noncontrollable by local boards. The effects of organizing large districts to insure better educational opportunity, greater program breadth, and more equitable tax burdens than existed were portrayed. The Study of Secondary Education continued to focus on these concerns by looking at the achievement and development of individual pupil potential through better course offerings and better-prepared teachers. Parts of NSSF data collection and analysis have been continued by the Office.[1] Publication of the reports of the National Survey of School Finance was financed by the American Council on Education, illustrating once again the problem of diffusion faced by the U.S. Office

[1]For example: Profiles of School Support, Public School Finance Programs, 1957-58 and State Surveys of the 1930's by USOE.

of Education from time to time.

In the late 1940's the gap between the type of data available and the major policy issue needs of the period was illustrated by a report of the Council of State Governments. In order to answer questions about the financing of public elementary and secondary schools, parts of the Council's report used information from the NSSF and the Cubberly Source Book. At about the same time, Senator Robert A. Taft shepherded through Congress approval for a School Housing Survey designed to determine the actual condition of American school facilities. The survey led directly to the enactment of P.L. 815, authorizing federal financial assistance for school construction in federally affected areas.

The problems of data gathering by the U.S. Office of Education in the immediate post-World War II period are summarized in a 1950 report of the Public Administration Service. Almost identical problems continue to exist today.

Therefore, although the U.S. Office of Education had developed both recurring and special studies, conducted by specialists with the knowledge and experience to analyze most educational problems, important gaps in information appeared time and again in the 60 years from 1905 to 1965. The Office was not able to develop and maintain a consistent statistical program to provide information organized for policy formulation.

Since 1965: cultural shock and management crisis

Given the disparities and uneven character of data collection activities in the Office of Education, it was not surprising that when faced with the massive shift in demands for data of the mid-1960's, the

Office was not able to maintain the capabilities developed since 1905. New demands occurred because emerging educational issues facing policy-makers became apparent at the same time that the Office was required to manage programs designed to resolve those issues. Hence the need for new types of information. The vehicle for meeting the educational problems of poverty and the need for quality education and equal access to educational services was the Elementary and Secondary Education Act (ESEA) of 1965. Existing procedures for collecting and analyzing educational data were totally disrupted due to the simultaneous occurence of (1) implementation of ESEA, (2) the reorganization of the Office to meet new demands under the then Commissioner Francis Keppel, and (3) preparation of the Coleman Report (Equality of Educational Opportunity). Unfortunately, although shortcomings existed long before 1965, statistical collection and analysis has been even less satisfactory since that time.

A contributing cause to the deterioration of data collection by the U.S. Office of Education from its usual sources, state departments of education and other organizations, has been the recent turnover in personnel at both the U.S. Office of Education and in state departments of education. Major expansion of statistical operations in the Office took place in 1917 and the 1930's. During a large part of the period from 1917 until the late 1950's, the state respondents and Office tabulators remained the same. Each understood the other and data differences were resolved on a personal basis to the satisfaction of both. After 1958, through the impetus of Title X of the National Defense Education Act, many states automated and computerized data collection. About this time, a new but related problem

emerged centering around the transition between the old method of reliance on personnel for all data collection and other procedures and the new demands imposed by the computers. The aging of existing state personnel speeded the process of automation, since those retiring were replaced by specialists in computer work. State computer personnel are more likely to change jobs or obtain increased responsibilities than their older counterparts. As a result, state educational data collectors changed often in the decade of the 1960's. Also, the late 1950's and early 1960's saw many federal level statistical personnel retire from the U.S. Office of Education. While personnel changes would ordinarily have little effect on a routinized operation, they created many bottlenecks in the new computer related data collection procedures.

While the Keppel reorganization, the implementation of ESEA and the Coleman Report are highlights of the 104 year history of USOE, the fact that all three activities occurred at the same point in time had a critical impact on the ability of the Office to perform basic tasks designed to report the condition and progress of American education.

In sum, in the mid-1960's a void was created in information management activities through the retirement of a number of experienced statistical specialists and the transfer of others to ESEA program monitoring posts. Thus fewer experienced personnel were available to handle the recurring statistical tasks that constituted the original mandate. Also, the all-out effort made by Office personnel to tabulate, analyze and publish the Coleman Report so disrupted routine statistical studies that few are yet back on schedule.

Summary of Topics Covered in
Office of Education Publications 1870's Through 1930's

Decade	Topic
1870's	Literacy Higher education - number of college students by state/ nationally States' constitutional provisions for education
	* * * * * * * * * * * * * * * *
1880's	Large city school systems: personnel, finances, pupils, buildings
	* * * * * * * * * * * * * * * *
1890's	Consolidation of information on cities and states
	* * * * * * * * * * * * * * * *
1900's	States' educational legislation Educational expenditures and salaries
	* * * * * * * * * * * * * * * *
1910's	Efficiency measures and economy of time; utilization of school buildings Salaries; pensions paid school employees Organization of schools and of school districts Organization of state departments of education School legislation; compulsory attendance laws and enforcement State financing of education Investment character of educational spending Schools and employment Data on practice teaching Handicapped children Provisions for kindergartens Comprehensive school surveys by states and special surveys of cities
	* * * * * * * * * * * * * * * *
1920's	Public school finance: state aid; taxes - state and local ability and effort; school organization; problems of devising new methods of financing and organization Codified state school laws on attendance Retention ability of schools Organization of schools and school districts State departments of education: organization and personnel Use of buildings: double sessions; consolidation made possible by roads and bus transport School transportation Free textbooks Education by non-school agencies

Table IV - 1 continued

Decade	Topic
1920's con't	Prison schools
	Medical education
	Parent Teachers Associations
	Pupils
	High school graduation requirements; members
	Certification laws
	Salaries
	* * * * * * * * * * * * * * * *
1930's	Public school finance: district-by-district and inter-state variations in ability, effort, expenditures; sources of funding - taxes and by governmental agencies; relative importance of educational expenditures in public sector; divergence between sources of educational finance and other governmental services, financing; state aid
	Federal aid to education
	Organization of school districts; educational and fiscal effects of reorganizing into larger districts
	Quality and quantity of teachers
	Retention power of the schools
	Availability of educational opportunity
	Interrelated behavior of many of above mentioned variables

CHAPTER III

THE PRODUCERS OF EDUCATION INFORMATION

We turn now to an examination of the producers of data about American education. In the first section of this chapter we look at the agency within the USOE primarily responsible for collecting, analyzing and disseminating information: The National Center for Educational Statistics (NCES). The growth of the Center over the past few years and its ability to perform designated functions will be compared to other federal statistical agencies with similar mandates. Particular attention is given to data collection activities of the USOE that are not the responsibility of NCES. In addition, USOE plans to develop a comprehensive education information system integrating state and federal systems are examined.

Second, we take an extensive look at the more critical links in the educational information chain, the states and local school districts. Emphasis is given to ways in which the Federal government has attempted to improve the information capabilities of state education agencies (SEA) during the last fifteen years. The adequacy of state information systems and, in particular, the relevance of state publications for state level policy making are also discussed.

The National Center for Educational Statistics

NCES was created in 1965 to serve as the statistical arm of the Federal government's efforts in education. A part of the Keppel reorganization discussed in the previous chapter, the establishment of the Center was intended to elevate and coordinate basic information activities of the USOE. In that role NCES currently gathers, stores, analyzes and disseminates general purpose -- as opposed to specific program management -- educational information. A small amount of data collected by other statistical agencies of the Federal government (i.e.,Census) is also included in the 55 series of publications.

The budget for NCES activities grew more than six fold during the 1960's from $.9 million to more than $5.7 million.[1] With the exception of statistical operations of the newly created agencies of the 1960's (the Department of Housing and Urban Development, 3.0 million; Transportation, 5.7 million; and the Office of Economic Opportunity, 4.9 million) ,the budgeted rate of increase in data collection for education was greater than any other statistical center in the Federal government.[2] Nevertheless,

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[1] Federal Statistics, Report of the President's Commission, Volume I, Chapter 1, Appendix B, pp. 41-42.

[2] The $.9 million covers only routine operational expenditures including personnel salaries and benefits as well as cost of data collection and publications. Special studies such as the Coleman Report (1966, approximately $1 million) and computer facilities (1967, approximately $1 million) are not included. However, the longitudinal study in higher education currently underway is included. If it were possible to sort out all such additional statistical activities of the early and mid-1960's, the actual rate of increase would appear considerably smaller than it does with the budget data used here.

at 5.7 million dollars, the NCES budget for fiscal year 1971 is far less than each of four other Federal government agencies whose missions closely approximate those of USOE, Table III-I compares Congressional appropriations for 1971, personnel ceilings for both years, and the amount of change in dollars and personnel from one year to the next in those agencies.

The closest parallel to NCES in the Federal government is the National Center for Health Statistics (NCHS) within the Department of Health, Education and Welfare. The NCHS budget for fiscal 1971[1] was almost twice that of NCES; in 1972 it was almost three times as large. More important, NCHS received a larger single increase ($5.2 million) from 1971 to 1972.[2] That increase of $5.2 million was almost as large as the total budget of NCES in 1971. Equally important are the differences in staff sizes. NCHS had more than three times the staff of NCES in 1971 and almost four times the staff planned for fiscal 1972. Other agencies included in the table employ up to twenty times as many staff. Even though such comparisons among statistical agencies cannot be definitive, they do reflect

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[1]NCES is the only one of the five agencies included in the table whose budget is not subject to line item appropriations by the Congress. Rather, Congress approved a USOE budget that included an additional 7 million, but when funds for research were cut in the OE budget, NCES was reduced by that amount to free-up extra funds for research. Budgets for each of the other agencies were as indicated.

[2]Unless otherwise stated, all dates are for fiscal years.

Table III-1

MANPOWER AND DOLLAR RESOURCES
OF THE GENERAL PURPOSE STATISTICAL AGENCIES
FY 1971 and FY 1972

Statistical Agency	Budget in Millions			Personnel Ceiling		
	FY 1971	FY 1972	Changes	FY 1971	FY 1972	Changes
National Center for Educational Statistics	$ 5.7	$ 6.1	$ 0.4	148	157	9
National Center for Health Statistics	10.1	15.3	5.2	459	583	124
Statistical Reporting Service, Department of Agriculture	18.6	18.9	0.3	1339	1355	16
Bureau of Labor Statistics	26.4	29.4	1.8	1416	1562	146
Census	22.6	24.4	1.8	3566	3724	158

Source: Department of Health, Education and Welfare

the comparitive value that both the executive and legislative brances of government have placed on the collection of accurate, timely and useful data.

These disparities are particularly surprising when viewed in the context of the activities being surveyed. In terms of gross measures of the subject areas covered by each of the three statistical agencies, education generated the largest dollar volume in 1970. But education is not only a major national effort fiscally, it has been the focus of intensive criticism and concern on official and unofficial state and local levels in

recent years. Indeed, for well over one hundred years Americans have placed much of the burden for relieving social inequities on their system of public education. Given the serious need for a program within the U.S. Office of Education that is capable of producing high quality, useful information to undergird intelligent public policy decisions, there appears to be generous room for budgetary growth in the area of education.

Table III-2

GROSS MEASURES OF SIZE OF SUBJECT MATTER AREAS
COVERED BY GENERAL-PURPOSE STATISTICAL AGENCIES
U.S. TOTALS FOR FY 1970

Statistical Agency	Measure of Size	Dollars in Billions
NCES	Educational Expenditures (Public and Private)	$ 70.6
NCHS	Health Expenditures (Public and Private)	67.2
SRS (Agriculture)	Realized Gross Farm Income	55.6

Source: Department of Health, Education and Welfare.

Our primary focus in this report is on information about education up to and including high school. Table III-3 illustrates that approximately 60 percent of the funds and about half the personnel involved in surveys are devoted to the areas of elementary and secondary including vocational education.

Table III-3

NCES RECURRING SURVEY EFFORT - FY 1971

	Related Publications Scheduled for Completion	Total Research & Training Dollars	Related Staff
A. Recurring Surveys			
Higher Education	17	$ 613	34
Elementary & Secondary (including SSS)	20	934	25
Adult & Vocational and Library Ed.[1]	6	73	14
TOTALS	43	$1620	73

While NCES is nominally the focal point for educational statistics, the Center processes only 10 percent of all data submitted to USOE. The reason for this comparatively low proportion of data processing is that the great bulk of information supplied by States and local school districts to the Office is submitted to the program monitoring bureaus. Such data are used for internal program management and are rarely integrated with recurring, general purpose information. In many cases the surveys employed are required by legislation and, typically, fulfill no further purpose than the minimal requirements for the legislation.

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[1] Includes higher education as well as elementary and secondary.

Two examples illustrate different dimensions of this problem. Recent amendments to Title I of the Elementary and Secondary Education Act (ESEA) set precise comparability requirements for the intra-district allocation of resources. There can be no more than a 5 percent variation in local, state and other federal funds between the average of all non-Title I schools in a district and each Title I school. USOE has a comparability report form that is made available to Title I administrators in state education agencies (SEA's). These forms, occasionally with minor modifications, are sent to each local education agency receiving Title I funds, in effect almost every school district in the United States.[1] For school districts without school-by-school budgeting and accounting -- the vast majority -- the task is massive. The City School District in Syracuse, New York, for example, estimated that more than 500 man-hours were required to complete the form in the Spring of 1970.[2]

Completed reports were then submitted to the SEA where compliance and district plans to make corrections are assessed. USOE may ask the SEA's to send reports for those districts in the Belmont sample[3] to Washington, but this is far from definite at this time.

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[1] Two kinds of districts were excluded from completing the entire report. Districts receiving less than $50,000 were required to complete only one of three sections. Districts with one elementary school were excluded entirely.

[2] In subsequent years -- the report must be completed for each of three consecutive years -- the time required should be considerably less, of course.

[3] The Belmont survey is designed to collect data for USOE program evaluation purposes. It will be discussed in greater detail later in this report.

Furthermore, there are no plans to incorporate the data from the comparability study into the NCES information program and the Center's Director has little knowledge of the study. At a time when NCES is placing major emphasis on developing good relationships with the states, and some SEA's are in fact refusing to honor USOE data requests, the lack of integral involvement of NCES in planning and administering the study can be deplored. Since the study is required by law[1] and there has been increasing concern expressed to NCES about school-by-school disparities in large cities[2], coordination with the Center could have resulted in at least making the unavoidable burden for local districts serve multiple purposes. Such coordination will only occur as a result of clear direction from the Office of the Commissioner.

A second example of the extensive data collection that occurs outside of NCES is also related to the controversial Belmont survey. Belmont was designed to gather data for program evaluation from school districts and schools. A subsidiary purpose was to combine information collected through several surveys into one survey. The principal instruments are the Consolidated Program Information Report (CPIR) on which data about all federal programs at the school district level are reported, the Elementary School Survey (ESS) and the Secondary School Survey (SSS).

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[1]This is somewhat of a misnomer since the study is not specifically required, only the results are.

[2]As an example, the Committee on Educational Finance Statistics recommended that NCES collect school-by-school data on a sample basis in its report of March, 1970.

Belmont was conceived and implemented within the Bureau of Elementary and Secondary Education. The CPIR, EES and SSS require states and local districts to submit almost as many data items as all of the Center's elementary and secondary surveys put together, yet NCES has little involvement. In most SEA's separate "Belmont representative" is selected by the Chief State School Officer and his work is done independently from that of the representative to the existing Committee for Educational Data Systems (CEDS) who regularly deals with NCES.[1]

This separation of Belmont from NCES has been partially alleviated by a minor reorganization within the Office of Education. NCES and Belmont are now directly responsible to the Deputy Commissioner for Development. As a first step toward better coordination within the Office, this reorganization is to be applauded. In the long run, however, a more encompassing unification of information activities may well be in order.

The Title I Comparability Study and the Belmont Project illustrate the difficulty of developing a comprehensive, integrated, policy-oriented information program for education. State and local school districts rebel

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[1] At a number of places in this report we have drawn upon interviews with CEDS representatives and their colleagues in State Education Agencies. The CEDS representative is the personal envoy of each Chief State School Officer to NCES for education data. All CEDS representatives convene once each year to discuss implementation of USOE data programs. In addition, a CEDS Planning Committee meets more frequently usually with Office Staff. NCES seeks the advice of CEDS in both long-range and short-term planning for data collection.

The Final Report of this project will make direct use of a mail survey to all CEDS representatives. Their attitudes and opinions will be considered in developing recommendations for long-range planning. The questionnaire for the CEDS survey is included in Appendix A.

against the extensive burden of supplying data, a burden that is only partially offset by federal funds (ESEA Title V and state and federal fund administrative budgets). Though NCES has major responsibility for reducing these problems, it has little or no control over many of the problems generated by practices within other branches of USOE.

Recent studies and recommendations concerning information activities

During the past eight years three independent studies of the activities for which NCES is responsible have been conducted. Each study observed a number of problems and suggested recommendations which warrant our attention.

The first study took place in the Fall of 1963 when the then Commissioner of Education Francis Keppel appointed an Advisory Panel on Educational Statistics. The panel was composed of 15 distinguished educators chaired by O. Meredith Wilson, then President of the University of Minnesota. The Wilson Committee made a number of recommendations, some of which were incorporated in the 1965 reorganization of the U.S. Office of Education that resulted in the creation of NCES. That reorganization overcame some of the problems we have listed as observed in the early 1960's. However, the three most important findings of the Wilson Committee are as current and as relevant today as they were then. Indeed, the Wilson Committee described them as "chronic", but we would trust that they are not so "chronic" that they cannot be resolved. They are as follows:

1. Long delays in the completion of many studies and reports.

As we noted above, this particular problem actually increased during 1965-66 with the simultaneous occurence of the reorganization of the Office of Education and the implementation of ESEA. NCES has yet to recover from the effect of those two events, and there is little evidence that this problem will be resolved in the near future.

2. Serious difficulties in the reporting of basic information by initiating sources, involving some lack of adjustment in the request for data to the form and circumstances of local and state record systems. This problem points out the dependency of the Federal government upon the data supplying capabilities of states and local school districts. We will discuss this in greater detail in the following section, entitled "Looking Ahead at USOE."

3. Less than adequate ascertainment of the needs of users of educational statistics and poor anticipation of new needs. This particular problem will be discussed in chapter IV. We note in that chapter that NCES has given very little attention to the specific needs of an important category of users of educational data: Congressional and top level, Executive Branch officials. NCES has attempted through a recent User's Study to ascertain the needs of users of education data. However, it is abundantly clear from that study that no distinctions were made among the kinds of users or their respective needs.

A second and somewhat different study was conducted by the House Committee on Education and Labor in 1967 of the entire U.S. Office of Education. The House study pointed out several problems.[1]

1. The lack of availability of computing equipment used solely by NCES. A number of studies from 1950, 1957, 1963 and 1964 recommended that the Office have control over its own computing facilities. As of 1967 that had not occurred and apparently has not today.

2. The absence of information about the non-public sector of education including private, parochial, commercial and technical schools. This problem extended even to those schools that were receiving federal funds. In very large measure this problem continues to exist today.

The final study that has bearing on this project is that conducted by the Committee on Educational Finance Statistics, commonly called the Kelly Committee after its chairman Professor James A. Kelly of Columbia University. The Kelly Committee was probably the first to focus on the critical lack of policy orientation in NCES and USOE data collection efforts. In the Committee's report to the U.S. Commissioner of Education James A. Allen, Kelly noted,

> Intelligent decision-making requires that decision makers at all levels of government ... have available to them the most up-to-date, relevant, and comprehensive data that it is possible to collect concerning (1) the nature of the problems to be solved,

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[1]Committee on Education and Labor, House of Representatives, 89th Congress, "Study of the United States Office of Education: Report of the Special Subcommittee on Education," Washington, 1967, pp. 758-763.

(2) the flow of Federal funds to states and local school districts and (3) the impact of that aid on children.[1]

The Committee concluded that though important efforts were being made to provide necessary data, gaps in essential information continued to exist. Areas in which data are required but unavailable included:

1. Recognition of lack of comparability between USOE data and that collected by the Bureau of the Census.

2. Data at local, state and national levels relating Federal aid by Title as well as by Act to the incidence of a target population at the school building level.

3. School-by-school demand or need for educational services.

4. School-by-school allocation of resources including Federal aid in large cities.

5. Lack of data about Federal aid that reaches children by means of non-USOE administered programs.

To overcome these data inadequacies, the Kelly Committee recommended that school finance data be organized around analytical common denominators relevant to significant public policy issues, expansion of the Elementary and Secondary General Information Survey (ELSEGIS) and Belmont samples and programs, and greater coordination with other agencies of the Federal government collecting educational data.

Nine specific recommendations were made for accomplishing these objectives. A number of the recommendations were proposed for the 1971

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[1] "Report of the Committee for Educational Finance Statistics: Recommendations for Data Collection Analysis and Publication," James A. Kelly, Chairman, March, 1970, p. 2

fiscal year budget, but did not survive Office review. However, several have been incorporated in the budget for fiscal 1972.[1]

Looking ahead at USOE: Common Core of Data for the 70's

One of the more unfortunate by-products of a study such as ours is the continuing focus on what is not being done. Current efforts and plans for the future are typically not given the same attention as are the gaps or shortcomings in data procedures. Compounding this tendency is the unavoidable time lapse that surrounds the subject of our examination, since the time between the commencement of planning a particular change in an information program and the collection, analysis, and eventual publication is measured in years, not in months. On the one hand, we examine shortcomings in publications planned three or four years ago and base our judgments on conversations with users of the same information. On the other hand, through our conversations with staff of the NCES and the U.S. Office of Education, we learn of plans to correct many of the problems cited, but the corrections will not be reflected in publications for another three to four years.

The Common Core of Data for the Seventies (CCD-70) is an example of the latter. CCD-70 is designed to achieve comparability and overall economy in the nationwide effort to secure educational data needed on problems in educational practice and educational finance. It will be directed at fulfilling the need for (1) coordination of federal/state planning toward compatible information systems, (2) financial assistance

[1] A summary of the Kelly Committee recommendations and their current status is in Appendix C.

for planning and operation of coordinated data systems, (3) financial assistance and technical services to the states, and (4) technical-statistical development of systems of educational data in education.

The premise underlying CCD-70 is based on a proposition common to massive information systems in all spheres of activity: information available at the top will be no better than that produced at subordinate organizational levels. Thus, CCD-70 is putting its eggs in the basket of improving the information system capabilities in the 50 states and 6 outlying territories. Federal grants on a 1 to 3 matching basis would be available to states. Costs would run from an optimal $60 million in the first year to $100 million per year by fiscal 1977. Greatly expanded technical and consultant services to states would be provided. While the staff of NCES would more than double within the next few years, it is a very clear purpose of the Office of Education in CCD-70 to first meet the information needs of states.

USOE is to be commended for initiating plans for a comprehensive, integrated information system in education. Clearly, no other national organization or agency has this capacity in education information systems. In addition, it is our feeling that a cost of $100 million dollars a year may be unavoidable if the nation is to have available the kinds of information that are requisite to intelligent educational policy formulation.

There are, however, some cautions that we would like to suggest. First, as indicated earlier in this report, there is great variation in the needs of the 50 states and 6 territories. Such variation is inherent in a federal system and is in no way comparable to the integrated though

decentralized administrative structures that characterize a typical large industrial company, or, for that matter, the many agencies of the Federal government. One of the important observations that we have made from talking with personnel in various state education agencies is that the uses of and the interest in certain kinds of information vary dramatically from state to state. Serious question should be raised about the intent to achieve comparability and integration through the device of meeting the needs of individual states.

Second, if one assumes that such a task can be accomplished as part of CCD-70, he must recognize that the desired outcomes will occur only after many, many years of intensive development. Those information needs that are peculiar to the Federal government may not be adequately fulfilled for a long number of years if we wait for information systems in each of the states to attain an adequate level of usefulness. A somewhat comparable situation exists in the state of California today. Funds for improving the educational information system in California have been directed at improving the systems in individual school districts. The result is that California's state information system is currently disjointed and inadequate. Though in the long term the system may be superior and more sophisticated than those of other states, that pay-off appears to be several years away.

Our third area of concern about CCD-70 is addressed to a problem area that cannot await a long-term solution. As we have noted earlier and often in this report, the usefulness of NCES publications to policy makers is largely a function of three interrelated factors: (1) the organization

of publications and data around policy questions, (2) the level of analysis employed, and (3) the readability of the material. NCES has given increasing emphasis to the need for a policy orientation to educational data in recent years. Such an emphasis is mentioned in several places in documents concerning CCD-70. But one quickly gets the impression from reading the rhetoric about CCD-70 that attention is focused on strategies to be employed in collecting data about education and very little, particularly at the outset, on the question of "data for what." No matter how useful the strategy, a comprehensive program for collecting, analyzing and disseminating information about the condition and progress of American education will be doomed to failure unless it begins with a careful selection and statement of the issues and resulting questions for which data must be collected. Only then and on this base can one turn to a critical analysis of existing data and determine what needs to be obtained to fill existing gaps. While this effort is certainly a purpose of our study, the absence, at the outset of CCD-70, of a high priority for the identification of issues suggests that any expenditure of funds close to that being contemplated by the USOE may indeed be futile.

Also missing is a necessary focus on the development of a series of readable publications structured around policy issues. NCES is to be applauded for its current emphasis on enhancing the statistical integrity of education data as well as in securing the level of expertise available to the Office and, in the future, to states. However, concern with statistics and the needs and problems of State Education Agencies appears to be taking precedence over the interests and concerns of policy makers

in the Federal government.

When we turn to the question of analysis, we know that a number of potentially severe problems exist. The 1963 report of the Advisory Panel on Education Statistics addressed itself to such concerns in a manner that has relevance today.[1]

> The data in the basic statistical series should be collected and reported so as to reduce to a minimum questions or suspicions concerning them. While these statistical data should be accompanied by full explanation and objective interpretation, it is desirable that the Office not be involved in controversial interpretations. For this purpose the panel distinguishes two levels of interpretation: (a) a first level which illumines data by explaining how they were collected, by appraising the results obtained, by relating them to other factual matters, and by deriving those valid conclusions or implications which are purely analytical or logical; and (b) the second level which interprets in a broader sense on the basis of disputed value judgment or assumptions or general views of any sort which are not beyond reasonable differences of opinion.
>
> The Office should provide the first level of interpretation since raw data simply cannot be understood without some such interpretive guides. It is as bad to publish ambiguous and misleading reports as to publish inaccurate ones. Moreover, the Office may be expected to be better informed about the operational and factual information that are needed for the interpretation of its own statistics. The Office should not undertake to work out and present the second type of interpretation.

When data are organized within a policy format, it is exceedingly difficult to make a clear distinction between these two levels of analyses. One of the subjects of the final chapter of this report is alternative ways in which this particular kind of problem can be resolved. Such alternatives will include utilization of existing mechanisms within the USOE as well as propcsed mechanisms outside of NCES and USOE. The point

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[1] "Report of the Advisory Panel on Educational Statistics," U.S. Department of Health, Education and Welfare, Office of Education, December, 1963, pp. 18 and 19.

to be made here, however, is that the problem is not in any way addressed in USOE plans for CCD-70.

The final concern that we have about USOE plans for CCD-70 focuses on that vast array of data used by states and the Office to monitor Federal aid programs. We noted earlier that NCES currently collects less than 10 percent of all data submitted by states and local school districts to the USOE. The Title I Comparability Study was cited as an example of a major project of the Bureau of Elementary and Secondary Education that placed enormous demands upon local school districts, but was conducted without involvement of NCES. Perhaps more critical, there are no plans to integrate comparability data into USOE information publications -- or simply to make the data available on computer tape.

If CCD-70, or any design of a comprehensive education information system is expected to deal with the sources of major data problems, it must include provisions for integrating all USOE collection, analysis and dissemination activities. Distinctions among policy information, management information, compliance information, etc., are relevant only in terms of the nature of the analytic report or publication that is produced from the data. The producer of the data -- local school district or state education agency -- is primarily concerned with supplying the original information. The particular data item, e.g.,per pupil instructional expenditures, should not change with the ultimate use to which the data will be put. In short, all data collecting, storing and integrating for USOE should be the responsibility of NCES.

Information Systems at the State Level

The success and efficiency of Federal government efforts to collect educational data are dependent upon the efforts of each of the 50 states and six territories. In turn, the willingness of the states to provide information, as well as the quality of the data supplied, is a function of a state's educational information system and the extent to which the state perceives a need for certain data items. If a state routinely collects information from its local education agencies, relatively little effort is required to provide Washington with that information. On the other hand, if the SEA is required by USOE to collect new and/or different information, both the efficiency of the operation and the quality of the data supplied will be affected. In this section we will review the condition of state information systems with a focus on the expansion that has occurred over the past decade. Particular attention will be given to the role of the Federal government in encouraging that growth.

To say that the quality of information systems varies from state to state would indeed be a mild understatement. In each state, there are data that local school districts must supply to the SEA in order to receive state aid or to fulfill other legal obligations determined by statute such as financial accounting of revenues and expenditures. Almost all such data concerning fiscal and pupil characteristics of school districts are necessary for calculating the allocation of state aid. We characterize such information as legal data.[1]

[1] The nature of the information collected for these purposes differs from state to state. For example, there are at least four common ways in which pupils are counted for state aid purposes. They include: enrollment as of some selected time during the school year, average daily membership (ADM), average daily attendance (ADA), and weighted average daily attendance (WADA).

The comprehensiveness and sophistication of a state's information system, however, is determined by the nature of the non-legal data, which may include such items as the following: teacher characteristics (experience, certification status, graduate level, tenure status), pupil characteristics (racial/ethnic status, special needs), curricular offerings, and achievement scores. It is in this area of non-legal data where greatest variation occurs. The quality and content on non-legal data is a function of two closely related factors: first, the kind of information generally collected and published by SEA curriculum and program management bureaus, and second, the extent to which these and other kinds of non-legal items are related to each other and to legal data in order to provide a picture of the condition and progress of education within the state. The influence of either factor on the development of a comprehensive information system is largely determined by the importance that policy-makers, and in most cases this means executive branch policy-makers, attach to the need for various kinds of non-legal information.

Although there is marked unevenness among the states with respect to the comprehensiveness and sophistication of educational information systems, significant progress has nevertheless taken place during the past ten years. While some of that progress can be attributed to efforts initiated by state-level policy-makers both within legislatures and SEA's, the growth and improvement that has occurred is largely a function of intervention by the Federal government. Such intervention has taken two forms.

First, the demands for program management information that have characterized the U.S. Office of Education since 1965 have had a similar

impact upon State Education Departments. SEA's are primarily responsible for managing the distribution and use of federal funds within each state. Consequently, SEA staff have been hired, often with federal funds, to monitor federal programs as well as state categorical programs. Monitoring functions have required the collection of certain basic kinds of information in addition to financial auditing. However, information collected relative to specific programs is rarely coordinated, integrated or published with other types of educational information.

Second, the Federal government has sought through two different acts since 1958 to upgrade SEA's: Title X of the National Defense Education Act (NDEA) of 1958 and Title V of the Elementary and Secondary Education Act (ESEA) of 1965.

NDEA Title X

NDEA Title X, Section 1009 was enacted to improve and strengthen (1) the adequacy and reliability of educational statistics provided by state and local reports and records, (2) the methods and techniques for collecting and processing educational data about the condition and progress of education in the United States. Matching grants were available to states for one-half the cost of improving educational statistics with a per state limit of $50,000.

During the 1959 fiscal year most Title X funds allocated to states were spent on the purchase of data processing equipment. By the 1960 fiscal year the pattern had shifted with 21 percent for personal services and 20 percent for miscellaneous expenditures. Before the influx of Title X funds

in the late 1950's,only 12 of the 50 states were utilizing electronic computers for data processing. Within 7 to 8 years data processing procedures were upgraded to the extent that all but two states were utilizing such equipment.

By 1965 the Congress had authorized $2.8 million per year for Title X. As Table IV-4 shows, somewhat less than that figure was actually spent in 1966 and 1967 by the Federal government. Two hundred sixty-six professional and 403 non-professional employees had been hired by the states in funded projects. The vast majority of these were new positions created as a result of Title X.

Table III-4

NDEA-X Expenditures and Staff,
1966 and 1967

	Federal Funds expended for Administration	State Funds expended for Administration	Professional SEA employees in program	Non-Professional employees in program
1966	2,013,268	4,288,673	276.2	407.5
1967	2,100,447	4,213,377	266.7	403.9

Source: Annual Reports No. 1, 2 and 3.

In addition to the staff added to State Education Agencies, the U.S. Office of Education employed 10-12 professionals as Title X consultants to states. Much USOE consultant time was spent in the field working with SEA's in the reorganization and development of data systems. The representatives to the Committee on Educational Data Systems (CEDS) to whom we have talked in the course of this study have to a man indicated that the period 1960-1965 was characterized by the most effective relationships that have ever existed,

either before or since, between the Office and individual SEA's. This occurred because USOE Title X field staff were exceptionally knowledgeable not only about information systems, but also about the kinds of problems faced by SEA's in collecting data. CEDS representatives usually indicate that Office of Education personnel were "familiar with the business of education." These observations fit well with the specialist approach that characterized the Office of Education before the reorganization of 1965, and discussed earlier in this report. The specialists involved in Title X had either been serving in similar capacities as representatives to the states for a long number of years or they had recently come to the Office from positions in an SEA.

We must point out, however, that although the relationship in the early 1960's between SEA's and the Office of Education was superior to what it appears to be today, this is not meant to imply that the information systems in the individual states were also better at that time than they are today. On the contrary, the reverse is true.

ESEA Title V

In 1967 Title X NDEA was merged with Title V ESEA. Title V provided three programs to strengthen State Education Agencies:

1. Basic grants to state education agencies to develop, improve and/or expand profcssional leadership activities (Section 503).

2. Special project grants to support experimental programs, and to develop special services designed to assist in the solution of problems common to several states (Section 505).

3. Provision for an interchange of professional personnel to develop and share leadership skills in both federal and state education agencies (Section 507).

Eighty-five percent or $14,450,000 of the fiscal year 1966 appropriation was allocated under Section 503. Functions for which these funds were used included collecting, processing, recording, analyzing, interpreting, and reporting state and local educational data. However, Title V also forced the state information system or data processing units to compete for federal funds along with all other branches of the SEA. Contrary to NDEA Title X, ESEA Title V did not guarantee that any of the federal funds would go to the improvement of information systems. In general, information system improvement projects received 10 to 30 percent of Section 503 funds. Basic grant money constituted 85 percent of the appropriation for each year.

Funds for Section 503 are allocated among the states on the basis of school enrollments. As of June 30, 1969, 22 percent of the funds provided had been used for statistics and data processing; 24 percent of the new positions under 503 were for the same activities. Tables IV-5 and IV-6 show the percentage of Section 503 and total SEA expenditures devoted to statistics and data processing activities, 1965 through 1969.

Table IV-5

ESEA Title V, Section 503 (Basic Grants) Expenditures for Statistics and Data Processing, 1966-68

	Expenditures	% of Total 503
Fiscal 1966	$2,354,171	20.93
Fiscal 1967	3,149,320	10.05
Fiscal 1968	3,246,265	17.78

Table IV-6

Expenditures for Statistics and Data Processing By State Education Agencies, 1965-1967

	Expenditures	Percent Total of SEA Expenditures
Fiscal 1965	4,944,181	3.55
Fiscal 1966	8,112,505	4.52
Fiscal 1967	6,882,201	4.19

Source: Focus on the Future; Education in the States-the Third Annual Annual Report of the Advisory Council and State Dept. of Education, March, 1968.

When ESEA was enacted, Section 505 provided that 15 percent of Title V funds were to be used by the Commissioner of Education to fund projects leading to the solution of problems common to several states. In 1967, amendments reduced this to 5 percent but at the same time mandated that the remaining 10 percent be allocated to the states, to be passed through to local school districts in an "equitable manner on basis of need."[1]

In its four-year history, Section 505 has supported 59 multi-state projects with grants totalling over $12 million. Table IV-7 shows the appropriations and expenditures for these multi-state projects since 1966. One of the more comprehensive of these projects was the Midwestern States Education Information Project (MSEIP) which was designed to aid in the establishment of a high quality information system compatible among 13 midwestern states. The system will provide basic information for reporting,

[1] Fifth Annual Report, pages 44 and 46.

analysis, research, and decision making at both the state and local school district level. In addition, it will provide data for federal reports and for specialized research. The system consists of five sub-systems: (1) instructional programs, (2) facilities, (3) finance, (4) personnel, and (5) pupils. MSEIP received approximately $1.8 million in Section 505 over a four-year period.[1]

Table IV-7

ESEA Title V Appropriation

Fiscal Year	Amount Appropriated	Amount Granted
1966	2,550,000	2,549,996
1967	3,300,000	3,300,000
1968	4,462,500	4,402,124
1969	1,487,500	1,487,500[2]
1970	1,487,500	747,812[2]
TOTAL	13,287,500	12,487,432[2]

Since the first Annual Report (1966) states that "a clear purpose of Act (Title V ESEA) is to secure more encouragement for state education agencies from state legislatures,[3] one of the more noteworthy findings derived from reviewing the five annual reports of the Advisory Council on State Departments of Education is the lack of explicit mention of improved information services to state legislatures. In view of the

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[1]The Federal State Partnership for Education, Fifth Annual Report, page 55.

[2]Fifth Annual Report, pages 44 and 46

[3]First Annual Report, page 7

part-time nature of the legislator's job and the virtual absence of individual or even committee staff, the fundamental purpose noted above would seem to require greater focus on analysis and the provision of publications that are designed for non-specialists. While the growth in information systems activities as a result of NDEA Title X and ESEA Title V is quite apparent, it is not at all clear whether the data collected is any more useful to legislators now than it was previously.

Interviews with state legislators, as well as review of publications from several states, indicate that most such publications are long on data and exceedingly short on even rudimentary analysis. Considerable data are published, but the types of data collected and the format of the data do not lend themselves to easy understanding on the part of policy-makers who do not have backgrounds in education, education finance, or statistics. The typical annual statistical report from a state consists of pupil accounting data, some minimal financial information, and general staffing data. Often these data are provided only by enrollment size groupings, i.e.,for schools having over 25,000 pupils, 10,000 to 24,999 pupils, etc.

Other Federal sources for the collection of education data

Besides the two Federal Acts discussed above, other means for developing and improving their information systems are potentially available to states. We indicated earlier, for example, that a great deal of information about specific schools and school districts is supplied to federal program monitoring bureaus in SEA's. These data are rarely assimilated with the recurring, general purpose data collected by SEA's. An example in New York State, certainly one of the most advanced states

with respect to the sophistication and comprehensiveness of its information system, will illustrate a pattern that is all too common. The Office in the New York State Department of Education, responsible for administration of ESEA Title I projects, collects annual data concerning the amount of Title I funds allocated to each school district in the state. One data item is the number of children from families receiving Aid to Families with Dependent Children (AFDC) payments.[1] Such information concerning ESEA Title I is published annually by the State Education Department, but the number of AFDC children -- one of the few generally available indicators of poverty -- does not make its way into the State Education Department's Annual Statistical Summary.

In addition to providing the kinds of data required by Federal statute for the administration of specific federal aid programs, only a very few states have been particularly adept at using funds for administration to collect information that is clearly and directly related to the needs of a comprehensive information system. New York State can again serve as an example. For a number of years prior to 1965, New York State had a small testing program for selected elementary grades that was made available to local school districts. With the advent of ESEA in 1965, the State Education Department used the Title I directions calling for evaluative instruments for individual projects as a means of developing a statewide testing program. As a result, achievement tests in reading and

[1] Approximately 90 percent of the Title I funds allocated to school districts in New York State are distributed on the basis of the incidence of AFDC pupils.

arithmetic are administered annually to all third, sixth, and ninth graders in all public and most private schools throughout New York State. Each year the cost of maintaining the Pupil Evaluation Program has been borne by the statewide administrative budget for ESEA Title I. But again, this significant and important body of data has yet to be coordinated with the traditional materials in the State Education Department's information system.[1]

As a result of these practices, the Annual Statistical Summary of the New York State Education Department gives information about the financial condition of each school district, the number of pupils enrolled in the school district, and comparative wealth of the district in terms of property valuation, but in no way enables one to get a sense of the actual socio-economic condition of the population or the achievement level of pupils in school districts. We might also add that additional information is regularly collected and published in other formsor available on computer printouts (post secondary patterns, drop-outs) but not included in any profile of school districts. Most states, however, do not routinely collect such information.

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[1] It should be emphasized, however, that the Bureau of Research and Evaluation in the New York State Education Department which administers the PEP Testing Program does analyze the results of the test on a community-type dimension. These analytical reports are produced annually and focus on the percent of educational disadvantagement in each stratum. Educational Disadvantagement is defined as the percentage of youngsters scoring below minimum competence levels, the 44th percentile on the reading and arithmetic tests.

Summary

State information systems have expanded and improved dramatically in the past decade, largely as a result of the availability of Federal funds (NDEA Title X and ESEA Title V). Great variations continue to exist among states in both ability and willingness to provide the Federal government with data.

A number of states are rebelling against information requests from Washington citing duplications, lack of established need for information and the high cost of collecting information not routinely collected.

The National Center for Educational Statistics (NCES) has made major efforts to improve data collection procedures in recent years (since its inception in 1965). However, the Center is severely limited in that almost 90 percent of elementary and secondary education data are collected by program management bureaus of USOE, Office of Civil Rights (HEW), Bureau of the Census, and the Department of Agriculture. Though interagency cooperation is improving, greater coordination is in order.

NCES has by far the smallest budget of all major statistical agencies in the Federal government. Given the pressing need for relevant and timely information and the multiplicity of problems associated with complete dependence upon state and local education agencies, the current budget of $5.7 million is grossly inadequate.

CHAPTER IV

THE INTERESTS AND CONCERNS OF CONSUMERS OF EDUCATIONAL DATA

In this chapter we look at those who use educational data. We will identify the different kinds of consumers, comment on their particular concerns and interests, and suggest priorities for ordering the multitude of needs to be served.

The Uses and Users of National Data

To suggest that needs of an information system can be divided into (1) policy needs and (2) management needs is a somewhat dangerous exercise. Although legislators may be considered primarily as policy-makers, it is nevertheless important to remember that Congressmen and Senators, in the exercise of legislative oversight, are vitally concerned with management activities of the executive branch of government. Conversely, initiation of new public policies as well as assessments of existing policies is not limited to legislators, but is a natural outcome of the direct involvement in program management of public executives. Furthermore, initiation and review of public policies often occurs at other levels of government and by such observers in the private sector as researchers, the press, foundations, private business, and groups of concerned citizens. Therefore, in examining the array of consumers of

educational data, we will focus on those concerns common to each classification of consumer, as well as on the differences in data needs among these groups.[1]

The following discussion draws upon three sources of information. First, during the past several months we have talked with a range of both consumers and producers of educational data: Federal and state legislators, legislative staff, executive branch personnel in state education agencies and the United States Office of Education, and staffs of educational interest groups. Second, we have examined the comments of respondents to a survey of data users conducted for the U.S. Office of Education in 1970. Finally, we draw upon our several years of experience in working with and for policy-makers at local, state and federal levels.

The concerns upon which we will focus are:

Accuracy of data: How accurate are the data? What margin of error can be tolerated?

Timeliness: How important is it that information be current? How great is the time lag between the year for which the data supplies and its publication?

Comparability: How extensive are the problems involved in comparing data from one state to that from another?

Projections: To what extent are consumers interested in projections of educational data for periods of several years?

Analysis: Do consumers want data to be analyzed or do they simply want the data made available in tables in order to do their own analysis? Is there a concern about analysis being susceptible to bias favorable to the political party in power?

Readability of Publications: Should publications be presented in technical or layman's language?

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[1] Development of recommendations on the particular data items related to these needs will be covered in the last chapter of this report.

National policy-makers: the legislative branch

Congressmen, Senators, their staffs and committee staff members place great emphasis upon the timeliness of information. While statisticians and researchers know that only minor changes in given data will occur over a period of 2 - 3 years, policy-makers have little confidence in information that is more than a few months old. Ideally, they would like to know "the condition as of last week." As a result they have a strong tendency to seek answers to their questions about education directly from personal sources in Washington rather than relying on publications of the National Center for Educational Statistics (NCES) or other federal agencies that publish data about education. This behavior pattern occurs even when the information sought can readily be found in such well known publications as "Statistics of State School Systems." This is not to say that legislators or their staffs do not turn to publications; rather, it is to say that given a choice, they are more likely to use the personal approach.

With the exception of "Projections of Educational Statistics," the NCES publications tend to have time lags in data reporting of two and a half to three years. Legislators, usually laymen in matters of educational research, simply do not trust data that old. They are less concerned with the controlled and authenticated aspect of data which have been processed by NCES than with the need to have current figures for a specific hearing or policy decision. Faced with such immediate needs, they will often turn to such other sources as the National Education Association publications which provide useful, current estimates, such as the monograph "Financial Status of the Public Schools," or they will

get such estimates from other sources by telephone.

A second major concern of legislators and legislative staffs is with the way in which data are presented by the Office of Education. The lack of any analysis in OE publications reduces their information value. Since legislators tend to be lawyers rather than statisticians or educators, and further, since they are busy men, they feel that they have neither the time nor the ability to analyze data themselves. Analysis of published data thus becomes a legislative staff function, and again the problem of expertise arises. Since the typical publication rarely relates critical variables to each other within broad "policy issue" categories, OE publications are difficult to use for the kinds of questions to which policy-makers need answers. Moreover, one legislative staffer suggested that NCES needs fewer statisticians and more artists, since legislative consumers require charts, bar graphs, tables and other visual techniques which bring out the meaning and implications hidden in the raw data. The clear implication is that more emphasis on readability would result in wider utilization of the collected data.

The clear desire of Congressional policy-makers for greater analytic orientation in the publications of the U.S. Office of Education runs almost completely counter to the attitudes we find prevalent within the Office. One occasionally hears comments about the need to do more analysis or the intent to obtain staff to permit actual analysis in future years. More commonly, however, one gets the impression from O.E. personnel that the absence of analytic content in NCES publications reflects a clear policy originating in the upper

levels of the Office. Whether or not the latter view is accurate, its very existence as a widely held belief could well be sufficient to deter the needed reorientation in USOE publication practices. Lower echelon personnel are less inclined to initiate such reform in the face of what they rightly or wrongly regard to be an unfavorable climate for its success.

In the absence of analyses, interpretation, or even categorization of data in OE publications, Congressmen, Senators and their staffs seek quick answers to questions through contacting knowledgeable persons. Many such queries come to staff members of the Office of Education, and in their personal responses there is far less inhibition about interpreting data than in official publications. Legislative policy-makers also frequently turn to others in the Washington community, such as professors, national staff personnel of organized educational interest groups, or those Congressmen or staff members who, over a long period of time, have established themselves as particularly knowledgeable on past or current educational policy questions.

Because they also want to know where the country seems to be headed with respect to important issues, legislative policy-makers have a strong interest in statistical projections and the closely related area of trends. NCES publications that extrapolate present developments are often viewed as the most significant and useful publications of the Office. In fact, we found among our interviewers a feeling that projections would be considered more useful if they encompassed additional policy issue areas. The implication for data collection, analysis and dissemination is that the routine publications

of the USOE should be based on a highly constant base of data which makes assessment of trends and projections more effective.

National policy-makers: the executive branch

For purposes of this discussion, executive branch policy-makers include staffs at the White House and the Bureau of Managment and Budget, and top level executives at the Office of Education and Department of Health, Education, and Welfare (HEW). Such policy-makers have, in general, primary concerns similar to those of the Congress, particularly in the case of officials of the Office of Management and Budget and the White House Staff: (1) fitting questions of educational policy into the context of overall domestic policy and (2) serving as watchdogs on HEW and OE activities.

While executives within HEW and OE are also concerned with long-term policy questions, their primary function is management which includes current planning and evaluation of existing Federal government policies and programs. Both groups of officials focus much of their attention on monitoring programs, data about which are not part of the routine collection, analysis, and dissemination activities of the Office of Education. For information about government programs in education, they rely upon specific reports by individual program managers.

For the more routine information requirements with respect to the condition and progress of American education, data needs of executive branch policy-makers often differ from those of legislative branch in that they are more interested in accuracy and comparability than with

timeliness. Though they are also concerned with the comprehensiveness of data about American education, such officials usually have specific questions about conditions in a particular state or in selected types of school districts. Because they can ask subordinates to analyze data as needs arise, the analytical content of OE publications is far less essential in their eyes. Although readability is less important to policy-makers in HEW or OE, those in the Office of Management and Budget and the White House compare with legislators in their desire for publications that are "readable." On the other hand, since the interpretation given to data may well have political implications, they may tend to see analysis as appropriate only for in-house documents and consider it potentially counter-productive to administration objectives if included in official publications.

Policy-makers at state and local levels

The National Center for Educational Statistics (NCES) consistently expresses a strong desire to gear itself to meet the information needs of states and local school districts. This avowed purpose of NCES activities is based on two closely related realities. First, while Federal information needs generally reflect broad educational concerns, local school districts and states have information needs about education that are often critical to the day-to-day operation of the public schools. Thus, the quality of state and local information systems will have a direct bearing on the quality of decision making that occurs at each of these levels. Second, NCES wisely recognizes that data submitted to the Federal government can be no better than that which was originally

available at the level of the local school district and, where appropriate, the individual school building.

The difficulty with meeting such a goal is that it becomes all too easy to confuse the information required for intelligent policy-making at state and local levels with the realities of obtaining information for national purposes. For example, the needs of states also include reducing the burden imposed by the obligations to supply data to the Federal government. NCES can and has done much to meet that kind of need. On the other hand, there are few areas in which the Federal government could collect from, and then supply to, a particular state information necessary to state level decision making that could not be done more efficiently, economically and effectively by the state itself.

State legislators, legislative staff, governors, and state superintendents of instruction have interests and concerns that are remarkable similar to those of policy-makers at the Federal legislative level. For example, timeliness of data is one of the more critical considerations. In addition, both analysis and readability are important factors to policy-makers at state and local levels. In the larger states, state education agencies have the capacity to provide analysis. In some additional states, this service is provided by researchers at the state university. However, to the vast majority of states, NCES publications would be considerably more useful if they were more analytical and readable. Our observations indicate that more often

than not, policy-makers at federal, state and local levels alike tend to turn to NEA publications more often than to NCES for inter-state comparisons.

Another state-local need could be met by an analysis-oriented Federal information system. Nationally collected, analyzed and disseminated data would assist citizens who need information concerning issues that are largely ignored by the education establishment within a state. For example, questions concerning the equitable distribution of state aid are seldom dealt with directly by state education agency publications. Parents and other interest groups must perform their own analysis of state data, often without expert assistance. Furthermore, data are rarely available from other states in a form which would enable them to make comparisons. The publication of such data on states centering about an educational issue with broad national implications can be immensely useful in stimulating change.

Probably the aspect of national data given top priority by officials at state and local levels is the comparability of information among states. State officials must be satisfied that the information about their own state which appears in a Federal publication is accurate and they must have confidence that items are defined in the same way for each state with which they might wish to compare their own state. Through the development of Handbook II on Financial Accounting, NCES has exerted strong leadership in this aspect. Better opportunity for comparability would exist today if more states ahd themselves adopted handbook procedures for record keeping.

It is our contention that NCES overstates the importance of fulfilling the goal of meeting policy-making information needs of state and local school districts. The ability to make such inter-state comparisons is, in a sense, a federal bonus given to a state or local school district information system. The fundamental and critical decisions that must be made by higher level policy-makers rarely rest upon the specific information items available or structured for inter-state comparison. It seems to be much more useful as well as more efficient for NCES to follow the suggestion that has been made by a number of representatives to the Committee on Educational Data Systems (CEDS): the Federal government should simply indicate to the states the data it must have from them, and pay less attention to trying to arrange data to solve state information problems.[1] When the specific Federal needs for information have been well served, the resulting availability of data for inter-state comparisons will serve local and state needs equally well.

An advantage to this approach is that one can then separate out those needs or problems related to producing data critical to decision making in the Federal government from the specific information needs peculiar to individual states and local school districts. The Federal government can then address itself to procedures necessary for efficiently collecting data independent of programs such as ESEA Title V that are designed to strengthen state education agencies. Such efforts on the

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[1] Appendix A reports the analysis of a questionnaire to CEDS representatives.

part of the Federal government were discussed in greater detail in an earlier section of this report.

Policy influencers: educational researchers and foundations

It has long been recognized that the foundation and research community can have important impact upon public policy in the field of education. Although they are in a private sector of public life, foundations and researchers typically maintain a high degree of independence compared to the constraints placed upon specialists within the education bureaucracy. An exception to this might be projects conducted specifically for government agencies, under conditions in which publication of the research results is at the discretion of the contracting agency. Nevertheless, many researchers under contract to government agencies, along with those completely independent of government connections, have significant opportunities to initiate new policy ideas as well as to make assessments of existing governmental policy.

Research into public policy questions, whether sponsored by the Federal government, private foundations, or simply non-sponsored but university-based is, of course, intended to influence the course of public policy. If data about the questions being studied are not available from the Federal government, the researcher must collect his own. Since data collecting for research purposes is always a hazardous undertaking at best, the importance of having useful data available for such purposes serves not only the interests of the researcher, but ultimately the concerns of the government, and, in turn, the public at

large. The number of research-oriented people contacted as part of the recent USOE User's Survey is indicative of the importance attached to this community of interest by the NCES.

Researchers in general and educational researchers in particular have one interesting characteristic in common with lower level bureaucrats in governmental agencies. Both groups have a tremendous capacity to generate all sorts of interesting questions believed to be worthy of study. One of the major difficulties faced by such agencies as NCES when reviewing the voluminous number of requests for data items to be included in routine surveys is to separate the data necessary for critical policy questions from those that are important and exceedingly interesting, but nevertheless, less critical. Indeed, one of the fundamental purposes of the major issue framework that is the subject of Chapter II of this report is to provide criteria by which such decisions can be made.

Despite the fact that education-based researchers typically focus their efforts on the same set of policy questions as do legislative and executive branch policy-makers, there are marked differences in their major concerns. Whereas the policy-maker wants current data, the researcher is more concerned with the accuracy of data and thus is willing to accept data several years old with confidence that the pattern that emerges will shift only marginally over the ensuing period of time. Similarly, when it comes to state comparisons, the researcher wants to know with confidence that the reported data are comparable from one state to another. The researcher/statistician is inherently concerned

about the comprehensiveness of the data collected with particular interest in the nature of a sample that is employed when universe data are not obtained. Researchers are generally not particularly interested in projections made by someone else. But they do recognize the importance of a strong data base from which one can make judgments about trends and, in turn, projections about future patterns.

Finally, the most fundamental difference between researchers and policy-makers or, for that matter, almost anyone else interested in education data, relates to their lack of concern about analysis and readability. Researchers want the data. They prefer to do their own analyses. Furthermore, when text is supplied to a publication, they are more concerned with the thoroughness of the explanation and the scholarly approach of the work in general than about the clarity of the presentation. Information that is difficult to read is easily forgiven if the substance of the presentation is well ordered.

The education industry

Virtually all of the statistical bureaus within the Federal government have as one category of clients the business and industries that operate in each of their respective fields. The Office of Education is no exception. Numerous suppliers of equipment, publishers of texts and other learning materials and, most recently, performance contractors rely upon statistics collected by the Federal government.

The primary concern of education industries is with projections and trends for planning purposes. Furthermore, their areas of concern

focus on curriculum and numbers of pupils enrolled in various curricular programs. They need to know how many youngsters are enrolled in various subjects and what new kinds of curricula are being developed. Such information enables the businessman to plan ahead for both the kinds and quantities of materials he will develop.

Thus the education industry is primarily interested in the data itself. Little concern is expressed about analysis or readability since industries employ their own personnel to analyze publications by national agencies. The typical businessman prefers to make his own judgments about the implications of statistics and their relationship to his own particular needs.

Educational interest groups

There are a number of special interest groups in education which are organized nationally and have particular interests in the condition and progress of education. Those generally recognized as the major groups are as follows:

1. National Education Association (NEA)
2. American Association of School Administrators (AASA)
3. Classroom Teachers Association (CTA)
4. National Association of Secondary School Principals (NASSP)
5. Other affiliates of the National Education Association
6. American Federation of Teachers (AFT)
7. National School Boards Association (NSBA)
8. National Catholic Education Association (NCEA)

9. National Association of Independent Schools (NAIS)

10. American Council on Education (ACE)

11. Council for Basic Education (CBE)

In addition, national organizations such as labor unions, civil rights groups such as the NAACP, and private enterprise groups such as the Council for Economic Development and the Chamber of Commerce, have an interest in American education with resultant needs for information.

Information needs of interest groups directly related to education are two fold. First, each group has a political role to play for its own constituents concerning negotiations for employee benefits or activities such as aid to private and parochial schools. The differing interests and prospectives of these groups within the political milieu often put them in competition with each other. On the other hand, all special interest groups concerned with education have in common a second area of interest. That is the improvement of education throughout the nation, with particular focus in recent years on increased Federal aid for all aspects of education. Such common interests have been dramatically illustrated in the ability of most interest groups to work together in the Committee for the Full Funding of Education Programs, a lobbying coalition created to influence legislators to appropriate funds for existing programs at the level of original congressional authorizations. Such activities reflect the common interest that all education groups have in the fundamental policy issues facing the nation as a whole.

Thus one can view the information requirements of special interest groups with respect to the major public policy issues as being synonymous with those of legislatures. Indeed, effective lobbying will, in large measure, be dependent upon a common understanding between legislators and interest groups about the nature of the problem raised by a specific policy issue. And common understanding is promoted through the use of a common data base for examining the nature of a problem. Those publications of the NEA that deal with characteristics of the states with respect to education are excellent examples of data that have been collected and analyzed in order to influence policy making on issues of broad national concern.[1]

When it comes to fulfilling the information needs that relate to the unique concerns of individual interest groups, we suggest that when those needs can be met with no additional expense to the Federal government and no additional burden to states and local school districts, such data should be included in USOE publications.

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[1]It must be pointed out that the NEA undertakes the collection and publication of information of national interest simply because the U.S. Office of Education discontinued publishing such data in the early 1960's. The need for such information was felt to be important enough that the NEA decided on its own to fill the gap. Numerous policy makers at both federal and state levels have indicated to us that they turn to NEA publications, particularly the "Ranking of the States," for nationally collected and published educational information. On the other hand, the U.S. Office of Education continues to be reluctant about ranking states on any of the information items that it currently collects and publishes.

Summary

The data collection, analysis, and dissemination program of the U.S. Office of Education has been designed to serve a multiplicity of needs. Even when we limit our definition of the program to information that is routinely collected about elementary and secondary education, we continue to see that there are several categories of data consumers that have interests and concerns about the data that are in conflict. Our purpose in the foregoing section was to examine those interests and concerns of the various categories of users independent of the specific policy issues for which each category would like information.

The order in which we discussed the interests and concerns of categories of users represents the priorities that we believe must be assigned to developing a long range, comprehensive program for collecting, analyzing, and disseminating information about education. To the extent that the needs of any one category of consumers are adequately met, they do not include those who should be receiving top priority, namely, legislative and executive branch policy-makers.

The needs of policy-makers are not met for three reasons. First, there is a critical lack of policy orientation in the data that are reported and, in large measure, collected. Second, reporting of information is almost completely devoid of analytic content. (This is a basic reason why current USOE data activities meet the needs of lower priority users more effectively than policy makers.) Third, USOE publications are not sufficiently readable and useful for policy makers who are neither statisticians nor educators.

The remaining two chapters of this Report are directed at providing strategies for developing an information system designed for legislators and officials who review and formulate educational policy. In the next chapter an educational finance policy framework for guiding development of such a system is discussed. A series of recommendations for dealing with the shortcomings summarized above and with the data collection, analysis and dissemination program of the USOE are developed in the final chapter.

CHAPTER V

A POLICY ORIENTED FRAMEWORK FOR INFORMATION ON THE FINANCING OF AMERICAN PUBLIC SCHOOLS

The most important criterion for evaluating the adequacy of available information on educational finance is how well such data illuminate and explain the major issues of national education policy.

Specifically, a program of data collection, analysis and dissemination must begin with the critical question: <u>data for and about what?</u> Accordingly, we believe that meaningful improvements in the statistical services of the United States Office of Education can occur only if data needs are measured against a consciously and carefully articulated framework of educational policy issues. This chapter will discuss one such framework.

Since the focus of this study is school finance, the relevant issues are those in which fiscal considerations are central. Because our sponsor is a Presidential Commission charged with preparing recommendations of a substantial and fundamental nature, our analysis is intended to take account not only of those specific policy issues which are before the nation at present, but also those broad policy concerns that will be of importance throughout the decade of the seventies.

Our purpose, then, is to develop a policy framework that is sufficiently comprehensive to cover the range of important questions that policy-makers ask, and explicit enough to suggest data that can provide the answers they need. We do not claim that the agenda of issues within the framework has a unique validity. It is, however, designed to organize the collection, analysis and dissemination of information on issues which it is generally agreed will have national significance for some time to come. Major categories of the framework organize information around four fundamental questions that effective governmental policy must address if it is to cope with the complexities of school finance:

1. What is the level and composition of both the need and the demand factors for various kinds of educational services, both at present and in the foreseeable future?

2. What will be the cost of satisfying those needs and demands?

3. How equitable--under whatever definition of equity might be posed--is the present distribution of educational services? And how equitably distributed is the burden of paying for those services?

4. What is the fiscal impact of Federal aid programs on school districts. Also, what is the impact on learning of educational programs in general and Federal aid programs in particular?

Clearly, we have more precise and complete information available in some of these areas than in others. Appendix B of this Report lists the sources of available data which bear on these questions. In the present section of this Report, however, we

concern ourselves with an explanation of the policy framework against which the adequacy of data must be judged, examining in detail the issues that are subsumed under each of the fundamental problem areas noted above.

1. The Demand for Education

Changes in the need and the demand for education come about as a result both of changes in the population and in the mix of educational services that are desired by consumers. We are not suggesting that a rigid determinism controls the shape of American education, nor that we can ascertain with precise accuracy the patterns of future school populations or the shifts in preferences for different kinds of education. But we believe that with the development of a policy oriented information program, far greater knowledge about the components of such changes could be made available to those who influence, formulate, and implement policies for education. Specifically, greater knowledge about the dimensions of need and demand factors in education would permit legislators and executives to plan more sensibly for the future.

1.1 Changes in the population

There are two dimensions to concerns with population changes. The first deals with the numbers. How large is the population to be served and where is it located? Second, what are the characteristics of the population to be served by education in general and public education in particular? Analysis of the needs of public school

pupils will focus on enrollment rather than the population as a whole.

1.1.1. Gross population trends

What is the pattern of population growth? In order to develop programs for the training of personnel or for the provision of facilities, policy-makers should know what the volume of future population is apt to be and where it is likely to be located. Baby booms, for example, imply a need for incentives to draw resources and personnel into early childhood and elementary education, with lower short term priority for secondary and higher education but predictable implications for the future.

What shifts in population characteristics are occurring among city, suburban and rural areas? Changes in the composition of central city, suburban, and rural populations will have direct relevance to the need for and the design and cost of educational programs. Policy-makers at the national level should be aware of regional growth patterns as well as trends in city-suburban-rural population shifts. Within states, of course, the questions raised by those who plan the future of education are more specific as they seek to pinpoint the planning of training programs for given areas and facilities. Clearly, general population data from census collections should be available about school district units, rather than just for municipal jurisdictions as is presently the case.

1.1.2. School-age population and enrollment trends

What is the pattern of change in pre-kindergarten to grade 12 enrollments among types of school districts and states? Of more immediate interest than long-term population projections are the observable trends in the school-age population. Relatively short-term (five to fifteen year) school-age projections may be made for states and regions with considerable confidence. Based on population birth to five years and upon existing early-grade enrollments, policy-makers at all levels of government should routinely know the demands that will be placed upon educational resources by virtue of pupil numbers at different grade levels, both now and for the near future. Clearly, questions of this nature require estimates that must combine relatively hard data based upon the existing population with estimates that have an implicitly greater degree of uncertainty, for instance the patterns of mobility and school-leaving age.

At present, school enrollment data are collected according to a variety of measures that vary among states: fall enrollment, average daily membership, average daily attendance. Each measure has several possible variations. While in the aggregate differences in the totals among the various measures may be rather small, amounting to only a few percent, the impact on the enrollment picture of particular kinds of school districts may be significant. Areas with large proportions of poor or minority group pupils have higher absentee rates, so that attendance measures tend to understate the

school population to be served. For example, in New York State it was found that changing the technique for counting pupils from the average daily attendance basis to an enrollment basis would have raised the pupil count in New York City sufficiently to increase its share of state aid by nearly fifteen percent.[1] Policy-makers concerned with providing aid to districts with attendance or dropout problems ought to be provided data which permit them to monitor these concerns.

1.2. Changes in the nature of the demand for education

Ascertaining the need for school services requires more than simply knowing how many pupils will be located where. Demand changes will reflect a relationship to the patterns of the years of schooling required by our society, on both pre-kindergarten and post-secondary levels. Preferences for private and parochial education will continue to shift and will have immense impact on the demands made on the public schools in some localities. Consolidation of small school districts and decentralization of large districts create their own sets of demand problems, requiring that such information be available. Finally, changes in the characteristics of communities discussed above, as well as shifts in student and parental preferences, suggest that changes in curricular programs and school services will form another set of demands.

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[1] Joel S. Berke, Alan K. Campbell, and Robert J. Goettel, Financing Equal Educational Opportunity: Alternatives for State School Finance, (Berkeley: McCutchan Publishing Corp.), forthcoming Spring of 1972, Chapter IV.

1.2.1. Years in school

What patterns are emerging with respect to years in school? Patterns of required and desired years of schooling are shifting. The most obvious shift may be downward, as kindergarten becomes more universal and as increasingly larger proportions of the population express a demand for early education. Conversely, school-leaving age may extend upward, with the demand for the availability of junior college facilities and open enrollment programs becoming more widespread. Will pupils and their parents increasingly seek more leeway in the period of life devoted to formal schooling, requesting, perhaps, the option of interrupting schooling for two or three years during late adolescence for experience in the private economy, public service, travel, or self-defined learning situations? And will a society that is becoming more dependent upon technology require increasingly more training and re-training experiences for economic purposes? Will shorter working days, weeks, and years lead to more educational opportunities and for leisure pursuits throughout the life span? Policy-makers cannot intelligently predict future demand without seeking some indicators of approaching changes in the nature of the present demand for education.

1.2.2. Non-public education

What is the impact on public education of changes in private and parochial school enrollment patterns? Preferences for public versus private education are undergoing change. The closing of

numerous parochial schools, for example, has received considerable attention because of the obvious and direct impact on public school finance in general and certain school districts in particular. Fortunately, techniques developed by researchers for the President's Commission on School Finance and the New York State Commission on the Quality, Cost and Financing of Elementary and Secondary Education have provided some of the methodological tools necessary for dealing with shifting preference patterns for non-public education.

Will the awakening desire of parents for differentiated educational programs and "better teaching" lead to a shift in enrollment to varied types of non-public schools? Just as significant numbers of Catholic parents and students appear to be re-assessing their need for parochial education, other segments of society are looking to alternative models for schooling beyond those offered by public school districts. Street academies, free schools and industrial training programs are examples of fledgling but potentially significant innovations. Proponents of voucher plans have provided a possible vehicle for funding such programs. We have every reason to believe that public interest in alternative schools will generate an increased demand for state and Federal government intervention in the 1970's, a demand which in turn necessitates an available source of reliable information for Federal decision making.

1.2.3. Changes in school district organization

What changes that have fiscal implications are occurring in the organization of school districts? The long-term trend toward consolidation of small districts has been well documented, but we must continue to devote attention to the changed dimensions of school district reorganization. Decentralization of large school districts may have significant impact in future years on patterns of administration and governance. Regional approaches to the delivery of school services which provide costly programs for vocational education or education for the handicapped through cooperating units are not well accounted for under existing data collection systems. If the trend toward regionalization continues, as many state programs suggest, policy-makers at all levels will be asking more questions than can currently be answered about the prevalence, cost, and desirability of supporting and encouraging such developments.

1.2.4. Changing curricular programs

What changes are occurring in the content of education?

Obviously, changes of the type noted above will also bring with them demand not simply for more, but for different educational programs and facilities. The increasing proportion of low income populations in particular areas implies a need for increased and improved vocational and career training programs, as well as compensatory education programs in varying age patterns (i.e. pre-kindergarten) intended to overcome obstacles to learning that are environmental in origin.

Recent studies have repeatedly demonstrated that low school achievement levels can be statistically predicted from observation of such societal variables as parental education levels, number of schools a child has attended in the last few years, and the proportion of children living in overcrowded housing. Policy-makers at all levels of government may come to provide educational programs designed to react to educational indicators of that kind. If they do, increasingly, broader and more sophisticated data will be required by educational policy-makers.

* * *

In short, then, one major area of policy concern that we would suggest as appropriate for organizing the collection and presentation of educational finance data is the level and composition of the shifts in need and demand for educational services. The data needed to assist policy-makers in that area include population trends, school-age enrollment trends, changes in the nature of the demand for education stemming from such things as growing interest in early childhood and career education services, new ways of organizing schools, and differing patterns of choice for private as well as public education.

2. Fiscal Dimensions of the Demand for Educational Services

Having examined questions related to the volume and the varieties of educational services, we turn next in developing a policy-oriented framework for an information system to the costs of such

services. Focus in this section is on the fiscal implications of the demand and need issues discussed in Section 1. Current expenditures and revenues must be examined in terms of the extent to which current needs are being met. Projections for the future indicate possible increases in costs of services and the ability of revenue systems to yield the funds to meet such costs. While the focus is primarily on education, recognition is given to the fact that education finance functions within a framework of public finance. Thus one important issue becomes, to what extent do demands for non-educational municipal services affect the capacity of local jurisdictions to devote funds to education?

2.1 Levels of financial support

Concern here is with expenditures and revenues for education. Three fundamental questions arise.

2.1.1. The costs of educational services

What are current expenditures in various types of school districts and what will future services require for their support? Counting the costs is clearly the most basic of fiscal responsibilities. National policy-makers should not only be provided with total educational costs, but they must also be able to identify comparative expenditure levels between states and among different kinds of school districts. In addition, it is becoming increasingly apparent that information about comparative expenditures among individual schools within school districts is also important for local policy-making

although at the national level it is necessary only to have sample data of this nature. Comparisons, however, require common units, such as expenditures per pupil in average daily attendance or in enrollment, and commonality or uniformity must also apply to the expenditure units. For example, expenditures in school districts which pay for retirement costs from their own current monies cannot meaningfully be compared to districts in which the state pays for such benefits.

Costs of different types of educational services should also be available. Starting at the most basic level, policy-makers should be able to tell what proportions and levels of expenditures are now allocated to schools with different pupil population characteristics, as well as observing such differences among elementary, intermediate and high schools. And in planning for the future, school executives should be able to estimate the per pupil cost of programs which emphasize, say, early learning or vocational education. Changes in population patterns, in program preferences, and in school organization should all be amenable to at least rough cost estimates to guide the development of finance policy. In the present as well as in the future, the developers of school finance policy at the national level should have available to them indices of the comparative cost of purchasing similar educational services in different regions of the country. Although the self-reinforcing nature of such cost differentials has thus far discouraged the development of suitable

indices, clearly such information is of critical importance to the formulation of any policy that calls for a significant increase in Federal aid. A variety of possible approaches should be investigated. An expansion of the Department of Labor's Consumers Price Index (CPI) to more Standard Metropolitan Statistical Areas for this purpose deserves serious consideration.

2.1.2. The revenues available for educational services

What are the sources of revenues for education, and what growth can be expected? Public education is currently supported by revenues from local, state, and federal sources. Local funds provide more than half the total; states furnish more than 40 percent; and the Federal government supplies approximately 7 percent of elementary and secondary school revenues. Intelligent fiscal planning requires that, to the degree possible, revenue yields be estimated. National policy-makers should have information from which to understand trends in state and local financing and gear Federal programs to overcome soft spots in the fiscal capacity of those units or to encourage greater effort, depending upon Federal policy preferences. Data useful for these purposes require equalized assessment values for property that can be taxed by school districts and states; estimates of family income by school districts and states; and other such yardsticks of ability to pay. As revenue patterns shift from heavy reliance upon local property taxes to statewide, more broadly based taxation, implications of such shifts must be apparent to those who plan the

the nation's educational finance.

2.2. Competing non-educational demands

To what extent do demands for non-educational municipal services affect the fiscal capacity of jurisdictions, both state and local, to devote funds to education? The determination of revenues available for education at all levels of government depends in large degree upon the competing demands for other public services that are made upon the same tax base. For example, in determining the fiscal capacity of school districts and states, rarely is consideration given to the extent to which expenditures for non-educational services in local municipal jurisdictions that overlap school district boundaries reduce the effective capacity to raise revenues for education. Two districts--or states--with equal tax bases are not necessarily equally able to provide funds for education if one of those districts or states must provide more extensive police, fire, public health, transportation, and welfare services out of that same tax base. Data should be available to permit the formulation of Federal and state aid policies that recognize that education finance is only one of several dimensions of public finance.

* * *

In short, the second major division of our framework organizes data related to the costs required to meet the educational needs and

demands discussed in the first section. It suggests that policy-makers ought to be able readily to match services to costs and to have guidance in determining what changes in patterns of educational resource allocation will be required.

3. Questions of Equity

In allocating public resources, the questions that must be considered are not only those of needs and costs, but of equity as well. How fair, public policy-makers ask, is the distribution of (1) the educational resources and (2) the burden of paying for those resources? Certainly concepts of fairness differ, but the information needed to answer questions of equity is applicable to any one of a number of definitions. We propose a framework for examining equity in school finance that will suggest the data required to answer the more commonly accepted conceptions of equity.

3.1. Equity in the distribution of resources: who benefits?

Let us look first at equity--or equality of educational opportunity--in regard to the pattern of allocation of resources. Two competing values are fairly widespread: first, that all public school pupils ought to have essentially equal resources; and second, that resources ought to be matched to educational needs in order to produce essentially equal learning outcomes. Under either approach, one should know the pattern of resource distribution--state by state;

district by district; school by school; in rural, suburban, or central city districts; by racial groups; by income classifications; and by wealth in terms of property value. What are the disparities between educational resources in one jurisdictional unit and those in another? To what factors do those disparities relate?

3.1.1. Dollar allocations

To what extent are local school district expenditure levels a function of local wealth rather than the wealth of the state as a whole? How equitably are dollars for education distributed among states, school districts and schools? What are the effects of state systems of school finance upon expenditure levels of local school districts? Expenditures for education should be examined within states in terms of wealth, income and the distribution of handicapped, vocational and disadvantaged students. Do expenditure patterns match the values and purposes intended by legislation? Are disparities systematic? What kinds of students seem to be benefiting most? Such questions can and should be asked about dollar allocations of educational expenditures.

3.1.2. Service allocations

How many and what quality teachers, counselors, curricular offerings, supplies, and facilities are available to whom and how wide are the variations? Most state aid systems are based on expenditures per pupil as the measure of fiscal need. A few, however,

use classroom units or pupil/teacher ratios to determine fiscal need. But the differences in the cost of providing comparable services among districts are of importance to almost all state systems. Thus if we bypass dollar allocations and focus on the distribution of services among schools or school districts, a somewhat different picture of equity often emerges. In short, some districts as well as states spend more for education and tax themselves at higher rates, but still fail in their attempt to provide services comparable to districts or states that spend less or do not make as great an effort. Information about such conditions is critical to the formulation of effective public policies designed to promote greater equality of educational opportunity.

Such concerns are at the root of equal educational opportunity. For those to whom the match of resources to need level is central to equal educational opportunity, the socio-economic characteristics of pupil populations and the achievement levels of those students may be considered indicies of fairness in the allocation of educational services.

3.2. Equity in the distribution of costs: who pays?

Competing concepts of equity in taxation exist as clearly as they do for notions of equal educational opportunity. Whether one believes that costs should be related to benefits received or to the ability to pay, policy-makers want to know the comparative fiscal capacity to support education among jurisdictions.

3.2.1. Fiscal capacity

To what extent are tax burdens related to the ability of states and school districts to raise revenues for education and other services? Fiscal capacity is open to varying definitions and no single approach should be examined exclusively. Clearly, however, it will involve property values where local educational revenue raising is largely dependent upon the property tax. On the other hand, citizens pay taxes with income, and the wealth of a community measured in terms of property values does not always match their actual ability to pay. Income levels, retail sales, manufacturing volume, are factors that can be examined.

The relationship between taxes and ability to pay raises other questions about the financing of public education. When the state and local tax system is taken as a whole, where does the burden fall? Is the system progressive, proportional or regressive? National policy-makers need to know how states differ on such questions if Federal aid policies are to be designed to encourage reform in state finance systems.

3.2.2. Tax effort

How much effort do states and local school districts make to support education and other municipal services? Fiscal capacity--or its converse, fiscal need--is one aspect of equity, but equally important to many people who judge the fairness of the distribution of the costs is the question of the degree of effort being made by

a community from its own resources. In the recent school finance cases in California, Minnesota, and Texas, courts concerned themselves not merely with whether wealthier communities were able to provide higher quality school services, but they focused equally upon the question of whether wealthier communities were able to provide higher quality services with lower tax effort. Thus equalized tax rate information becomes critical, as well as the relationship of tax burdens to such other measures as personal income. While the courts have not at this writing resolved that question directly, policy-makers in other branches, and possibly the courts themselves, may want to ask themselves precisely what measure of effort is really the most realistic. It may be that tax rates converted to proportions of income taxed for the schools is a more appropriate approach, or else it may be that the total tax effort--for schools as well as for other public purposes--is a more appropriate test for certain kinds of school districts. In any event, national policy-makers ask a variety of questions about the effort which both states and local school districts expend on raising revenues for education.

* * *

In sum, then, questions of fairness are considered by citizens, officials, educators, and judges as they make determinations about state educational finance systems. Those questions relate to the

equity with which we distribute services for education and the costs of paying for those services. Such questions are the substance of the third division of our policy framework.

4. The Impact of Educational Programs

While the policy concerns discussed under the previous three categories appear to be of consuming interest to the policy-makers we have contacted in the course of this study, and in the course of our other professional activities in the area of educational finance, one set of questions emerges as of paramount importance in the minds of many citizens. What impact are current programs having and would there be any different impact if financial investments in educational programs were increased? Such questions are covered in this last category of our policy framework. They are on the one hand questions related to the tracing of fiscal allocations for education and their interaction with finance programs of other governmental levels, and on the other hand they are questions which relate to educational evaluation, namely the outcomes in the quality of education of the various government sponsored programs.

4.1 Fiscal impact

Who benefits from Federal aid to education? To what extent is the allocation of Federal aid related to measures of fiscal and/or educational need? Perhaps the most distressing observation to be made about data gaps in the educational information system is that

after many years of Federal aid to states and local school districts and, in particular, more than six years experience with the Elementary and Secondary Education Act of 1965, national level policy makers are still largely uninformed about "who benefits?"[1] This is particularly surprising since one of the primary purposes of ESEA as well as other Federal programs is to improve the fiscal condition of school districts through such aid. Therefore, one of the more pressing information needs at the national level is to collect, analyze, and present in a concise, coordinated, integrated and understandable manner, reliable answers to questions dealing with the flow of aid to school districts, schools and specific programs. Given the present "state of the art" in this area, Congressmen and Senators will in all probability be asked to make far-reaching decisions about new Federal aid-to-education programs with exceedingly little information about the operational outcomes of present policies. For example, once one begins to ask questions about specific kinds of Federal aid, i.e., ESEA Title II or NDEA V, information about the flows of such aid is unavailable. Since different Federal aid programs typically have different purposes, it is critical that policy-makers know the extent to which the funds are getting to areas where the original purposes for which aid was given can be served.

Adequate information about patterns of Federal aid flows would indicate what kinds of school districts and schools get which

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[1] For a report of efforts by the Policy Institute, Syracuse University Research Corporation to disentangle problems related to this question see Stephen K. Bailey, Joel S. Berke, Alan K. Campbell, and Seymour Sacks, Federal Aid to Public Education: Who Benefits? Select Committee on Equal Educational Opportunity, United States Senate, April, 1971.

kinds of aid. Also, what kinds of services or activities characterize expenditures? To what extent does the flow of Federal aid compensate for or contribute to the inequities of a state's finance system for education? How effective are state education agencies in coordinating and integrating Federal aid programs? What are the patterns of allocations for non-USOE administered funds i.e., Office of Economic Opportunity, Department of Agriculture? Clearly, current practice on the part of the USOE and state education agencies is to account for the expenditure of funds, not to provide information about such expenditures that relate to broader public policy issues. The filling of this gap deserves top priority attention within the Federal government.

4.2 Educational impact

Do additional resources in general, and Federal aid funds in particular, improve learning? Under what conditions does money make a difference? These questions are probably the most frequently asked by public officials charged with formulating educational policy as well as by citizens who are constantly asked to pay higher taxes to support education. We are doubtful that such questions can be adequately answered at the present time, but the great importance that policy-makers attach to the need for some indication of positive payoffs from the current financial investment in certain kinds of education aid programs, must be reflected in any comprehensive educational information system. It should be noted, of course, that

there exists no consistent data to indicate that positive payoffs are not occurring.

One clear way for the public to begin to get a sense of the condition and progress of learning in the United States is for the USOE to integrate information acquired from a variety of sources about the current educational attainment of the population. This implies data about achievement test results, college attendance rates, drop out rates, employment success, and years of schooling. Reaction to the National Assessment Program and the slow but sure growth of state assessment programs are promising indicators that resistance to finding out "how we are doing" is diminishing. Hopefully, considerable attention and money will be devoted by the Federal government to accelerating the development of these activities.

But another component of this issue area holds less promise. There is probably very little chance in the near future of producing significant benefit-cost analysis of alternative educational programs, and strategies to influence the course of public policy. Therefore, a comprehensive Federal government information system in education should not yet attempt to answer benefit-cost type questions. Rather, the responsibility for dealing with such questions should rest with the National Institute of Education (NIE) until the time that results of such analyses can be generalized for applicability to broad based educational programs. In the meantime, the USOE can and should extend cooperation and support to NIE efforts to shed more light on this subject.

Summary of Major Issue Areas in the Education Finance Policy Framework

1. The Demand for Education

   1.1 Changes in the population

      1.1.1. Gross population trends

      1 1.2. School-age population and enrollment trends

   1.2. Changes in the nature of the demand for education

      1.2.1. Years in school

      1.2.2. Non-public education

      1.2.3. Changes in school district organization

      1.2.4. Changing curricular programs

2. Fiscal Dimensions of the Demand for Educational Services

   2.1. Levels of financial support

      2.1.1. The costs of educational services

      2.1.2. The revenues available for educational services

   2.2. Competing non-educational demands

3. Questions of Equity

   3.1. Equity in the distribution of resources: who benefits?

      3.1.1. Dollar allocations

      3.1.2. Service allocations

   3.2. Equity in the distribution of costs: who pays?

      3.2.1. Fiscal capacity

      3.2.2. Tax effort

4. The Impact of Education Programs

4.1 Fiscal impact

4.2 Educational Impact

CHAPTER VI

SUMMARY AND RECOMMENDATIONS

The previous five chapters of this report have been addressed to identifying the problems of providing useful information for those who formulate and evaluate educational policy, particularly education finance policy, at the national level. The system of collecting, analyzing and disseminating data has been examined with particular emphasis on the most glaring shortcomings and anomalies in that system. We have examined and catalogued both the availability and the usefulness of information on the important questions on the nation's educational agenda through interviews, questionnaires, and staff analysis. We have met with local, state, and national officials of both executive and legislative branches, and have studied reports of previous panels which have looked into the information gap in elementary, secondary and higher education. As a means of judging the usefulness and organization of educational data, we developed a framework for policy analysis.

Summary

On the basis of those research activities, our major conclusion is that the present system of educational information fails to serve the requirements of those who need timely, reliable and relevant information about the nation's educational problems. From the policy-

makers viewpoint, this failure has four critical dimensions:

1. Information is not organized and presented within a policy-relevant framework. There is little indication that federal education data collection begins with the most basic of questions: <u>data for and about what?</u>
2. Information that is collected and disseminated is rarely analyzed. As a result, USOE information typically is presented according to the alphabetical order of the states or the enrollment of school districts, two characteristics which usually have little relevance to the major issues facing the nation.
3. The format and presentation of the information as well as long delays in publication discourage use by policy-makers.
4. Numerous gaps exist in the availability of data required to answer questions relative to the education agenda in the 1970's. Such gaps occur for three reasons.
   a. Suitable comparisons from district to district or state to state are often not available in any form. Examples include pupil achievement data, cost benefit data, and "needs" data in basic instructional areas.

b. Data available for some aggregations of school districts, municipalities and states are not available for other aggregations or levels. This is one of the principal reasons why it is so difficult to relate fiscal data about education to data about other state and municipal services.

c. To be useful to policy-makers an item of information must be presented in relationship to another item to create an index which permits anlaysis and conclusions. As often as not, USOE publications present raw data which are of little use to policymakers.

One of the more discouraging findings of this study is that many of the problems that we have identified and the recommendations that we are making have been noted by numerous individuals and study committees over the past 30 to 40 years. Those problems continue to exist. In light of the increasing operational role of the Federal government in education and the current crescendo of voices calling for a vast increase in the Federal share of total revenues for education in the 1970's, the need for solutions to data problems has become critical.

The primary reason why significant information gaps continue to exist while substantial recommendations have largely been ignored is that both the executive branch of the government -- beginning with the USOE -- and the majority of Federal legislators have in the past

not considered the need for good information about education sufficiently pressing to insist that changes be made. Specifically, executives and legislators have failed to exert the aggressive leadership required to overcome bureaucratic lethargy and shortsightedness, and to provide the substantial increase in funds necessary to get the same kind of job done in education that is routinely expected of business and labor, agriculture, health, and a host of other Federal statistical programs. Without such leadership from the White House, the Secretary of Health, Education and Welfare, the Commissioner of Education, key Senators and Congressmen, and without sufficient fiscal and staff recources, there is little likelihood that our recommendations will fare any better than those of earlier studies. Put another way, the notion that the USOE should do a thorough and systematic job of analyzing and reporting the condition and progress of American education is not just an idea whose time has come. After more than 100 years of an Office of Education, it is, we believe, long overdue.

Our recommendations have two foci. First, we discuss a series of recommendations addressed to the information system for education as a whole, recommendations designed to generate and institutionalize fundamental change in the process of collecting, analyzing and disseminating information. Second, we present recommendations dealing with each of the components of the system by focusing on the collection, analysis, and reporting functions independently.

We must note our recognition that these recommendations are not made to or about a static information system. Rather, the present activities of the USOE, including the publicly expressed intentions of the Commissioner, indicate considerably more drive towards development of a dynamic information program than at perhaps any previous time in the history of the Office.[1] Some of the problems we have discussed have also been identified by responsible officials within the Office. Similarly, some of our recommendations are under internal consideration. Nevertheless, there are areas in which substantial differences exist between our recommendation and present USOE plans. These result from our overriding concern with the needs of the policy process and our primary emphasis on serving the information requirements of policy-makers in the executive and legislative branches of the Federal government, as well as citizens who must pass judgment on their actions.

Recommendations

We believe the following three recommendations are the most critical that emerge from our research:

1. Data Analysis

Data about American education must be analyzed. A series of publications which explain spatial trends in (1) the demand for education, (2) its costs, (3) conceptions of equity in regard to

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[1]See "Data Gathering -- a Time for Planning", a speech by Commissioner of Education Sidney P. Marland, Jr. presented to the opening session at the annual Commissioner's Conference of the Council of Chief State School Officers in Washington, D. C., Thursday, June 17, 1971.

educational services and costs, and (4) the impact, both fiscal and, to the extent possible, educational of Federal programs should be produced by an analytical staff located in the National Center for Educational Statistics of the United States Office of Education. The function of the staff would parallel the activities of such agencies as the Bureau of Labor Statistics and the Office of Business Economics. More specific recommendations will be discussed below under analysis.

2. Advisory Committee

To guide improvement in NCES information gathering, analysis and dissemination, an advisory committee should be created. Composed of recognized scholars and other policy-oriented users of educational data, the committee should be charged with producing an annual report to the Congress, Secretary of Health, Education and Welfare and to the Commissioner of Education on (1) the important trends in the condition and progress of American education and (2) the state of the Office's information collection, analysis, and dissemination. Such a committee, with a staff of its own, would parallel in a general way the functions provided by such committees as the Advisory Commission on the Education of Disadvantaged Children. Specifically, it would provide the immensely useful function in regard to data services of asking the essential question: "Information for what?" Ambitious organizational changes like those envisioned in the Common Core of Data for the Seventies will serve a useful function only as a body of analytically and policy-oriented people influence the

selection of items to be collected and the manner in which they are organized and presented.

3. In-depth analysis

Ultimately, however, independent, continuing, in-depth analysis of the state of American education and educational finance will come only from a body roughly comparable to the National Bureau of Economic Research. Funded, perhaps, by the National Institute of Education and the States, such a body could develop the prestige and competence to attract distinguished senior scholars and the most able junior colleagues. Drawing upon the data of NCES, private interest groups, and university based research; cutting across jurisdictional levels both horizontally among the agencies of the National Government and vertically among State Education Agencies and Local Education Agencies, such an agency is the primary hope we have for the development of the all important capacity to provide critical analysis and evaluations of the information collected about the condition and progress of American education.

Additional Recommendations

Having considered ways in which the Federal government can provide a framework and mechanism for reassessing information needs for policy formulation, we turn now to recommendations that focus on the procedures for fulfilling those needs. The following three sets of recommendations are designed to improve the collection, analysis and dissemination functions of the USOE. Specific attention is given to relationships between USOE and other agencies of the Federal government as well as between USOE and state and local education agencies.

4. Data Collection

The thoroughness and effectiveness with which data are collected are two of the most critical elements in the process of developing a comprehensive information system. In recent years NCES has generally demonstrated the ability to effectively manage the data collection process for those areas in which it has responsibility. But as we have noted on several occasions in this Report, additional data pertinent to educational policy are collected by program management bureaus of USOE and not currently controlable by NCES and by agencies of the Federal government other than the Office. One of the needs, therefore, is to bring data collected by other agencies to the NCES in a format that permits analysis with general purpose education data. Similarly, data collection procedures directed at state and local school districts can be improved in order to enhance the reliability of data and to reduce the burden upon those agencies. The recommendations in this section focus on USOE activities, relationships with other Federal agencies and relationships with states and local school districts.

4.1. Office of Education Activities:

These recommendations are addressed to the integration of general purpose data and program management data, shifting of the responsibility and reassessment of the Belmont Project, and development of a new "state specialist" approach to data collection.

4.1.1. General purpose data--those data which are currently collected by the NCES to inform the nation about the "condition and progress of American Education"--and data required for program management purposes--those

data which are often required by legislation for monitoring Federal aid programs--should be integrated. As we noted in Chapter IV, more than 90 percent of all data submitted to USOE by states and local school districts go to bureaus other than NCES. While such data are undoubtedly important to the administration of programs, they may well serve as a rich source of information in addition to being an immense burden on states. The story of the Title I Compliance Survey reported in Chapter IV is probably only the most broad based and potentially useful of a number of similar situations. The point is, we have no idea--and we suspect that neither do NCES staff nor top management at USOE--what program management data are collected and (1) the extent to which those data might be useful in providing answers to some of the important policy questions and (2) the extent of the duplication that exists among the data activities of program bureaus. NCES staff are attempting to get a handle on this problem, but they clearly need the support of top level USOE management. The following four sub-recommendations will help in that effort.

a. NCES should develop an inventory of data requests, forms, reports, individual data items, samples and USOE users.

b. All surveys for data to states (and local districts) from USOE should be approved by NCES.

c. Where necessary, legislation should be amended to facilitate coordination and to reduce duplication in the internal USOE data program.

d. Appropriate staff positions should be allocated to NCES to accomplish tasks a and b.

4.1.2. Consistent with 4.1.1, the Belmont Project (Consolidated Program Information Report, Elementary School Survey, Secondary School Survey) which was designed to collect program evaluation information should be assigned to NCES. NCES staff should conduct a thorough review of all components of Belmont to assess the extent to which the entire project can, with modifications, serve policy information needs. Belmont was developed in the Bureau of Elementary and Secondary Education and then transfered to the Office of the Deputy Commissioner for Development. Recently there has been indication that NCES would be assigned direct responsibility for Belmont. Such a move is critical--it perhaps bears even more important symbolic significance--to the centralization and coordination of all USOE data activities, the internal bureaucratic politics of the Office notwithstanding.

4.1.3. NCES should assign data collection specialists to a given number of states with responsibility for supervising the collection and integration of data about those states from state education agencies and other Federal agencies. Such specialists would (1) become expert in the data problems of the states to which they are assigned, (2) serve as liaison persons with state education agency personnel and, (3) serve as liaison persons between NCES and USOE program management bureaus for their assigned states. Each specialist would be the most knowledgeable person in the Federal government about any data that has bearing

on education in his assigned set of states. In this role he would be the person in NCES to whom state education agency data specialists could consistently turn and would be the resource person for other USOE personnel. The "specialists" designation implies positions that should have high stability over time with obvious implications for USOE personnel policies.

4.2. Interagency cooperation

One of the realities of assimilating data in response to questions arising from any comprehensive education finance policy framework, including the one that we have proposed in Chapter V, is that much of the data come from sources other than USOE. Indeed, one of the major shortcomings in the NCES data program is that USOE publications rarely deal with education programs managed by or information collected by other agencies of the Federal government. When USOE is interested in obtaining data from other sources, NCES staff are largely dependent upon their ability to persuade their counterparts in other agencies of their needs for data relative to education interests. Two steps are called for:

4.3.1: Continuing support must come from the Commissioner of Education and, when necessary, from the Secretary of Health, Education and Welfare for strengthening the links between the various agencies collecting education data. The Office of Management and Budget can play and important role in promoting such coordination among agencies.

4.3.2: All Federal agencies that request data from state and local education agencies should have requests approved and processed by the NCES

forms clearance operation. Such agencies would include:

a. Office of Civil Rights, HEW

b. Census of Governments

c. School Lunch, Department of Agriculture

Just as the laudable efforts of NCES to reduce the burden on states by avoiding duplication of efforts and promoting effective coordination of surveys are often hampered by practices of other USOE bureaus, the same problems are created by agencies outside of the Office. The survey mailed to state education agencies by the Office of Civil Rights, HEW, in the early fall of 1971, is a recent example. That survey clearly ignored practices that had been agreed to by NCES and state representatives to the Committee on Educational Data Systems. The states have every reason to expect better treatment from the Federal government.

We fully recognize the pitfalls that exist in this recommendation which calls for greater bureaucratic centralization, particularly when that centralization is placed in NCES, a relatively young organization that has yet to completely prove its competence as a major statistical agency. There will undoubtedly be some short-term costs in efficiency from the standpoint of the other agencies. Nevertheless, those short-term costs should be off-set in the long run by reductions in the burdens placed on states and local school districts while at the same time improving the quality and usefullness of the data to policy-makers.

4.3 Role of the States

NCES is largely dependent upon state education agencies for data about states and local school districts. Surveys typically go to state

data personnel even when they pertain to school districts or other sub-units. If the state education agency can supply information from its own records without sending the survey along to local districts, it usually does so. The following three recommendations deal with survey flows, integration of general purpose and program data at the state level cost of data collection and compliance with Federal government requests.

4.3.1: <u>All surveys from agencies of the Federal government that require elementary and secondary education data from states and local school districts should be sent to the state education agency.</u> No surveys should go directly to local school districts. In short, the procedure thats generally observed in NCES should be applied to USOE program management bureaus and other agencies.

4.3.2.: <u>USOE procedures should be designed to encourage integration of general purpose and program data within the states.</u> The same kinds of problems exist in this area at the state level just as they do within the office. In fact, the problems may be worse. A recent study of the politics of Federal aid administration in six states noted that there were few efforts to coordinate and focus federally funded programs and that the need for such a focus was critical.[1] One mechanism for encouraging coordination may be through data collection procedures.

4.3.3.: <u>All routine data requests from USOE should require state compliance</u>. Failure to submit data should result in withholding of Federal aid to the state education agency. If the data are sufficiently important to the Federal government, compliance should be required. We recognize

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[1] <u>Federal Aid to Education: Decision-Making and Allocation</u>, Joel S. Berke, Michael Kirst, co-editors, D.C. Health forthcoming May, 1972.

that this recommendation is not consistent with the views of approximately two-thirds of the CEDS representatives whom we surveyed--they prefer a voluntary system with incentives--but it is the most realistic way in which to get data when it is needed. On the other hand, such a requirement should place upon the Assistant Commissioner for Educational Statistics and the Commissioner of Education and the Advisory Committee that we have proposed responsibility for assuring states that data which are requested from the states are clearly needed in order to answer questions in the policy issue framework.

4.4.4: The cost of providing the Federal government with information beyond those normally undertaken by state education agencies and local school districts should be assumed by USOE. This is a principle that is easier to articulate than to operationalize. Procedures employed in the most recent Elementary and Secondary General Information Survey (ELSEGIS) are a step in this direction. However, more extensive funding by the Federal government raises a number of thorny issues. For example, some states (Michigan and New York) already do a great deal more than other states in collecting data for their own purposes. Also, through state administration budgets for Federal aid programs some funds are already available for these purposes. The example of New York State in which the statewide testing program is funded through the Title I administrative budget was cited in Chapter III. There are numerous examples in other states that are more difficult to disentangle.

5. Analysis of Educational Data

This is the second functional area to which we focus specific recommendations. The more critical and broad based elements dealing with

the question of analysis of information about education were addressed in our first three recommendations. The following three recommendations are designed to implement those proposals.

5.1: The USOE should have personnel on the staff of NCES trained in demography, economics, education, public finance, sociology and other areas of social science expertise in order to perform analysis of data. Such analyses should focus on data regularly collected by the Office and be within the framework of the four broad issue areas discussed in Chapter VI.

5.2: NCES should have an editorial staff assigned responsibility for insuring readability and clarity of publications. Though an editorial staff cannot be thought of as a substantive addition to NCES, it may be the most practical way to make publications useful to policy makers who are not experts in education or statistics.

5.3: NCES should have responsibility for analyzing only ongoing, routinely collected data, including data collected as part of program management activities within the Office. Longitudinal studies and in-depth analyses that occur only once or on an irregular basis--for example, the Coleman Report--should be the responsibility of the staff of the National Institute of Education or the independent, government sponsored research organization proposed in recommendation No. 3. Data collection for such studies should, of course, continue to be the responsibility of NCES.

6. Dissemination of Educational Information

What should be the format of a USOE publication series reporting on the condition and progress of American education? We recommend that there be three series of publications, each organized within the four issue areas of the policy framework.

6.1: The first series would be a computer listing including tables of all data regularly collected about elementary and secondary education from state education agencies and local school districts. These publications can be printed and disseminated almost immediately after the the last data items from a survey are submitted by states and placed on computer tapes and edited. If these survey reports are organized by states or region such as census of housing and census of population reports, the time span between publication and the period for which the data apply can be shortened even more. Clearly, such publications will include no analysis, only raw data and computer generated analytical indices.

6.2 The second series should be directed at readers who are laymen--policy-makers, citizens, etc.--and would include considerable analysis. The presentation would focus on clarity and would emphasize charts, bar-graphs and other descriptive techniques that assist the reader in visually interpreting data. The focus of this series would be on the policy questions and the analyses would clearly draw upon non-USOE data in addition to NCES surveys when the use of such data are appropriate to dealing with the policy issues.

A significant component of this series should be early reports, possibly in a newsletter format, of the analyses of a single, concise set of issues for which data are available; or trends are clearly discernable. The current monthly report of the Assistant Commissioner for Education Statistical is a commendable step in this direction.

6.3: The third series of publications should be focused on the in-depth analysis that would be the charge of the research organization proposed in Recommendation No. 3. Such reports would appear as short monographs dealing with specific sub-issues within the policy framework. Like the publications in series 6.2, they would be directed at laymen, though the substance of the analyses should reflect an exceedingly high order of scholarly research.

Summary of General Recommendations

1. Data about American education must be analyzed.
2. To guide improvement in NCES information gathering, analysis and dissemination, an advisory committee should be created.
3. Create or fund a research organization roughly comparable to the National Bureau of Economic Research to conduct independent, in-depth analysis of the state of American education and educational finance.

Summary of Additional Recommendations

4. Data Collection

4.1 Office of Education Activities

4.1.1. General purpose data and data required for program management functions should be integrated

a. NCES should develop an inventory of data requests, forms, reports, individual items, samples and OE users

b. All requests for data to states (and local districts) from OE should pass through NCES Forms Clearance Bureau

c. Where necessary, legislation should be amended to facilitate coordination and to reduce duplication in the internal OE data program.

d. Appropriate staff should be assigned to accomplish tasks a and b.

4.1.2. Consistent with 4.1.1. the Belmont Project should be assigned to NCES. NCES staff should conduct a thorough review of all components of Belmont. Particular attention should be given to the extent to which Belmont serves policy information needs.

4.1.3. NCES should assign data collection specialists to a given number of states. Such specialists would (1) become expert in the data problems of the states

to which they are assigned, (2) serve as a liaison person with SEA personnel and, (3) serve as a liaison between NCES and USOE program management bureaus for their assigned states.

4.2 General Forms Clearance

4.2.1. All Federal agencies that request data from SEA's or local districts should have requests approved and processed by NCES Forms Clearance Bureau. This would include:

Office of Civil Rights, HEW

Census of Governments

School Lunch, Department of Agriculture

4.3 Role of States

4.3.1. All Federal government data requests should go from NCES to SEA's. No requests should go directly to districts or schools.

4.3.2. Every effort should be made to integrate general p purpose and program data within states.

4.3.3. All routine data requests from NCES should require state compliance. Failure to submit data should result in withholding of Federal aid to SEA for all administrative functions.

5. Analysis of Educational Data

5.1 The Office should have personnel on the staff of NCES trained in demography, economics, education, public

finance, sociology and other areas of social science expertise in order to perform analysis of data. Such analyses should focus on data regularly collected and be within the framework of the four broad issue areas discussed above.

5.2 NCES should also have an editorial staff assigned responsibility for insuring readability and clarity of publications.

5.3 NCES should be responsible for analyzing only ongoing, routinely collected data, including data collected as part of program management activities within the Office. Longitudinal studies and in-depth studies that occur only once -- for example, the Coleman Report -- should be analyzed by staff of the National Institute of Education or the independent, government sponsored research organization proposed in recommendation No. 3. Data collection for such studies should, of course, continue to be conducted by NCES.

6. Dissemination of Educational Information

6.1. Publication Series: Three publication series should be produced relevant to the condition and progress of American education, each organized within the framework of the four issue areas.

6.1.1. The first series would be computer listing and tables of all regularly collected data placed on computer

tapes. These publications can be printed and diss disseminated almost immediately after last data items are submitted by states and placed on tape. If publications are produced by region or state, that is, anything smaller than the nation as a whole, the time span between publication and period for which data applies can be shortened even more. Clearly, such publications will include no analysis, only raw data and tables with computer generated analytical indices.

6.1.2. The second series would be directed at readers who are laymen -- policymakers, citizens, etc. -- and would include considerable analysis. The presentation would focus on clarity and would emphasize charts, bar-graphs, and other descriptive techniques.

6.1.3. The third series would be produced by the NIE or the research organization proposed in 4.3 above and would also be focused at laymen. Such reports would appear as short monographs that reflect in-depth analysis of specific sub-issues within the issue framework.

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Appendix A

ANALYSIS OF

QUESTIONNAIRE TO REPRESENTATIVES

TO THE

COMMITTEE ON EDUCATIONAL DATA SYSTEMS

Analysis of the "Opinion Survey of the Representatives to the Committee on Educational Data Systems Concerning Educational Data Collection"

Purpose of the Survey

A questionnaire designed to poll current attitudes and opinions on various aspects of collection and use of educational data was sent in mid-October, 1971, to a select group of people engaged in educational data collection at the state level. This group comprises the 55 representatives to the Committee on Educational Data Systems (CEDS), a standing committee established by the Council of Chief State School Officers in 1962.[1] The following analysis is based on the responses to specific questions, comments, and suggestions recorded on the questionnaires returned to us by CEDS members. A total of 37 questionnaires were returned, 34 of which were useable in the tabulation and analysis.

All of the 34 CEDS representatives are staff members of their respective Departments of Education who typically hold positions of director or comparable status. As indicated in the table on the following page, ninety-two percent are engaged primarily in one or more aspects of design, coordination, and maintenance of information systems; research and development; evaluation; dissemination of educational data; and/or legislative laison activities. The remaining eight percent are connected more closely with school finance and accounting. The representatives are

[1] CEDS members are changed with the responsibility of serving as a point of contact between their respective states and the national level of educational data collection and information dissemination. The U.S. Office of Education has an official relationship with the Committee through the Office of the Assistant Commissioner for Educational Statistics, who is also the director of NCES. USOE sponsors the quarterly meetings held in Washington, D.C., of the none-member CEDS Planning Committee which carries out the groups major liason work as regards the national collection of educational data from the states.

evenly distributed in terms of the number of years serving on the committee: less than one year to three - 32 percent; four to six years - 35 percent; and, seven to nine years - 32 percent. Fifteen of the 34 have been, or are presently, officers in regional subgroups, on the CEDS Planning Committee, and/or appointees to various USOE advisory committees. With 34 of the states represented there are no large gaps in regions or between more and less populous states.[1]

Two Themes

CEDS members sounded two themes throughout their responses to specific questions as well as in open-ended comments, two themes which confirm in many aspects the research and interviews on which other parts of this study are based. The two themes focus on:

1. Who at the state level should provide data to national agencies?

   Answer from CEDS representatives: SEA's only.

2. How can we deal effectively with unwieldy educational data systems?

   Answer: Give the National Center for Educational Statistics (NCES) the necessary authority to provide greater coordination of Office of Education, HEW and other agency requests.

Information flows: LEA → SEA → USOE

CEDS members generally agree that data should be collected by

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[1] The questionnaires were mailed in the second week of October. A letter of reminder followed at the end of October and phone contact was made in early November. That is, a total of three contacts with each representative, with the exception of the five territories which were contacted by mail only.

Table A-I
Characteristics of Respondents

Length of time CEDS representative	
less than 1 - 3 years	32%
4 - 6 years	35%
7 - 9 years	32%
Past/current member of CEDS regional grouping, Planning Committee, Advisory Committees	44%
Major professional area due to more operational aspects of data systems	92%
School finance, accounting, etc.	8%

Regional representative*		Percent region is of fifty states
Mid-Atlantic	29%	[22%]
Southeast	15%	[24]
Mid west	27%	[24]
Southwest & Rocky Mt.	15%	[18]
Far West, Alaska and Hawaii	15%	[12]
Territories	1%	

*A complete listing of respondents can be found at the end of this appendix.

national agencies from the state educational agencies as a matter of course and not from LEA's or schools as indicated in these typical remarks :

> I believe that there is too great a tendency to want to by-pass state agencies and go directly to the local school for information. Requests arriving at the local school directly from Washington tend to undermine and defeat state efforts to establish and maintain a comprehensive data gathering system.

Another member comments on information systems within the states,:

> These systems must be meaningful and useful at the local agency level so that it [information] can be collected and processed by the state and fed to the national level as required. A master plan, financial aid, and initiative are lacking at this time.

This general attitude is based on the idea that a smoothly operating national data system would be enhanced by regularizing the channels through which information flows. As another respondent succintly states: "The chain of data collection must be from LEA to State to USOE."

Greater Coordination at the National Level

The theme sounded most often was that of the need for coordination and the authority to act as a central clearing house on the part of USOE. The comments of CEDS members range from a flat "decide what we need to know" to the expression of hope for continuing improvements,:

> I think NCES is improving. If they had more authority over what data is collected form [by] other branches, this would improve the data collection process.

The two themes are linked together by the overarching concern for narrowing down the number of collection points of data, e.g. to SEA's at the level of state to national channeling of information and to NCES

within the federal group of agencies who collect educational data.[2]

Problems for producers of data

The genesis of a number of problems noted by CEDS representatives as producers of data is found, in part, in the proliferaiton of national agencies which find reason to request educational and education-related data from states. The burden in terms of cost and time created by duplication of items on a number of data instruments is the most obvious problem in this connection. Other problems such as absence of sufficient explanation of the need for the data and of sufficient lead time (civil rights information mentioned most often) to provide the information are compounded by the appearance of a number of data requesting agencies on the national scene without effective control at some central point. Suggestions range from "establish effective scanning of all data instruments" to "allow only NCES to collect data and have all other federal agencies and bureaus collect data only from or through NCES."

Problems for users

As users of nationally reported educational data the representatives emphasize most strongly the time lapse between collection of data and publication. One respondent commented that one role of the national information system should be to act as a trouble shooter, i.e. in the sense that potential problem-producing areas could be detected early be observing trends at the macro level, and warning signals sent out. For this

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[2]SEA and/or local education agencies receive requests for information from NCES, HEW, Department of Agriculture, Census of Governments, and NEA.

kind of system to operate at all data publication would have to be very up-to-date. While this "Early Bird Warning System" is singular in suggestion, the phenomenon of speedy relegation of information to archive status contributes greatly to the vulnerability of data collection agencies. Data must be "hot" or remain ignored.

For purposes of policy formulation within their own states CEDS representatives express in a variety of ways the preference to use their own data rather than nationally reported data. This preference stems from a number of problems ranging from lack of comparability to skepticism concerning the accuracy of nationally published data. There is no one over-riding problem which emerges. Rather, there may be a circular causation in motion that goes like this: the demand for interstate comparability data is still relatively low; when a state does need to make comparisons, national data is often in irreconcilable categories, different definitions, and contain inaccuracies. The states, therefore, continue to shy away from greater use of national data. In other words, from the evidence presented by the results of this questionnaire, the comparability problem appears to be complex and self-fulfilling.

Suggestions for improvement

The two above mentioned themes carry through in the kinds of suggestions offered by respondents to improve educational data systems. Not too surprisingly, there is a strong bias in favor of maintaining the existing system. Improvements in the direction of concentrating on NCES capabilities, federal funding of the additional costs imposed by producing data for national agencies, requesting data only from SEA's, and of imposing standards are most common. Further investment in NCES and the setting of standards may be interpreted as affirmation of support

for a coordinating center and clearing house from which guidelines (at the very minimum) to the whole system emanate. The preference for the LEA → SEA → USOE flow of information is strongly reinforced.

The format for the presentation of detailed results from the survey follows. Questions are numbered as they were on the original questionnaire and are repeated with only slight variation as appropriate. The summary of the tabulation of responses is given in precentages, all of which are based on 34 except where otherwise indicated (with reason for the change of base). In some cases the replies to one question may not total 100 percent due to rounding, incomplete responses, and/or non-applicability of the question (a state not having school district divisions). Upon perusal of the returned questionnaires questions with replies that lacked clear meaning were eliminated. A copy of the original questionnaire is attached.

Question-by-question results and analysis

It is immediately apparent in the first four questions that confidence in making estimates from existing information rapidly diminishes as we look beyond the current budget year. In the first column we see that 85 percent or more of the respondents report that estimates of total state revenues, school district revenues, and the revenue raising potentials of all local government units contributing to educational programs can be made. Slightly fewer, around three-fourths, report that information is sufficient to make estimates in the current budget year of the fiscal needs of state education programs. It should be noted that the questions on revenue all pertain to existing tax sources and educational programs. The confidence in making estimates in the current budget year as well as the near future, even for existing revenue sources and programs, may reflect not only informational gaps, but also the prevailing uncertainties surrounding state finances and allocation of persistently scarce resources.

The school districts in 88 percent of the cases do have good information on existing levels of state and local sources of revenues, and in 68 percent of the cases on federal revenue sources. Availability of information on all sources of revenues at the school level applies only in a few cases. This pattern of information flows -- more information at the higher levels and diminishing as we move to smaller jurisdictional units -- may be consistent with the use of such information and the location of decision-making centers.

Revenues

	In current budget year		Thru next budget year		Over next five years	
	Yes %	No %	Yes %	No %	Yes %	No %
1. Does good information now exist for estimating your state's revenues for all governmental services from existing state tax sources?	85	6	74	21	21	62
2. Does good information now exist on the current revenue raising potentials (capacities) of all of your state's local government units now contributing to educational programs in the state?	85	6	65	24	18	65
3. Does good information now exist for estimating each school district's local revenue?	88	3	56	32	18	65
4. Does good information now exist for estimating fiscal needs of existing state educational programs?	77	18	47	44	3	82

	At school district level (LEA)		At school level	
	Yes %	No %	Yes %	No %
5. Is good information readily available concerning existing levels of revenues from state and local sources?	83	12	18	74
6. Is information readily available concerning existing levels of revenues from federal sources?	68	27	15	77

All but one (97 percent) of the CEDS representatives say that good information is available on a regular basis to make possible the tracing of state categorical and federal funds to local school districts. Thirty-eight percent can trace these funds to the public school level and less than one-third can trace these monies to private and parochial schools. When we look at desirability for information we find that the one state that does not have the information for school districts would like to see his state have that information available. As many as three-fourths of those states that do not have the data for the public school level would like to see this situation remedied and as many as 80 percent of the states who do not have information on categorical and federal funds to parochial and private schools would like to have such data at their disposal. In other words, this is one area in which there is a demand for more complete information on the distribution of funds. Well over one-third of the members agree that methods of reporting should be changed. The kind of change is not specified, except to say that at least one-fourth of the representatives favor changing categorical grants to block grants.

Distribution of funds

	To public school districts (LEA's) Yes %	To public school districts (LEA's) No %	To Public Schools Yes %	To Public Schools No %	To private & parochial schools Yes %	To private & parochial schools No %
7. Is good information routinely available which permits the state education department to trace the distribution of categorical state and federal funds?	97	3	38	56	29	59
8. If any of your answers to question 7 are "no", do you believe that such information should be available? Note: percentages in this response are based on the number of "no" responses in question 7.	100	--	74	-	80	-

	For financial auditing Yes %	For financial auditing No %	For program auditing Yes %	For program auditing No %
9. Does good information now exist to insure that categorical state and federal funds distributed to school districts are used for purposed intended by the state?	88	12	47	47

	Change methods of reporting Yes %	Change categorical to block grants Yes %
10. If such information is not readily available what steps would you recommend to be taken to insure that it becomes available?	38	27

Classification Criteria -- Schools and LEA's

For purposes of classification of school districts it appears that information on handicapped pupils in vocational programs is collected by over 80 percent of reporting states. Just under two-thirds of the states have information on racial/ethnic characteristics, AFDC pupils, and type of community serviced. Under 20 percent have information on family income of pupils. These figures reflect to some extent the history of items included in educational data collection (chapter IV). Interest in collecting information on vocational and handicapped programs was aroused much earlier and in this sense it might be expected that more states would have this information available on a systematic basis today. AFDC and racial/ethnic data are attached, on the one hand, to a particular program and, on the other hand, to a more recent awakening to concerns for problems to which these data might apply.

One respondent remarked on the sensitivity of people to family income data and suggested that he found it more prudent to use estimates for the entire community. Similarly, there were more than a few remarks from CEDS representatives that racial/ethnic information was troublesome to collect due to sensitivities aroused in local communities. Also, there was question whether state constitutions were being violated in this respect. However, since racial/ethnic data are required under the Federal Civil Rights Act, failure to have data available cannot be dismissed on grounds of reluctance.

Generally information on characteristics for school-by-school classification is available in fewer states. However, vocational, handicapped, and racial/ethnic characteristics are also of high relative availability at this level.

In columns two and four we see once again that there is a demand, although not evenly distributed, for information on these characteristics on the school and school district levels in those states which report a lack of such data. It is hazardous to generalize this demand for data to include demands for more information from higher levels in the educational data system (i.e. national level). As the response to this particular question is meshed with the overall type of response to the questionnaire, it seems reasonable to assert that states recognize gaps in their own information systems and favor expending their energies in filling those gaps. At this point, one respondent summed up a widely held opinion that states should be encouraged and supported to improve and stabilize their own information systems and that such improvements would have a beneficial spillover effect for a national educational data system.

		School districts		Schools	
		Yes %	% of remainder who think information should be Available	Yes %	% of remainder who think information should be avaible
11.	Does good information now exist in your state which permits classification of schools and LEA's in terms of the following characteristics?				
12.	If such data are not currently available which items do you believe should be collected?				
11 & 12.1	Racial/ethnic characteristics	65	17	53	19
11 & 12.2	AFDC pupils	62	15	18	18
11 & 12.3	Handicapped pupils	82	67	44	11
11 & 12.4	Family income of pupils	18	32	12	17
11 & 12.5	Pupils in vocational programs	85	40	71	20
11 & 12.6	Type of community serviced (urban commercial, urban residential, non-farming, etc)	65	33	27	28

Educational Need

When asking about the availability of information on specific educational requirements aggregated up to the state level, we find that approximately two-thirds of the states have necessary data in three areas of need: elementary school teachers, academic subject teachers, and teachers of the handicapped. Closer to 50 percent have the information necessary for reading specialists and facilities. More importantly, except for the first category of requirements for elementary teachers where the number of

states remain the same, a greater number of CEDS representatives think this kind of information should be available on school districts. This is yet another indication of the recognition that gaps in information availability still must be remedied at the state level for improved educational planning.

		Yes %	No %
13.	Is good information routinely available? for estimating statewide requirements? For:		
13.1	Elementary classroom teachers	68	29
13.2	Academic subject teachers	65	35
13.3	Handicapped teachers	68	29
13.4	Reading specialists	56	41
13.5	Facilities	47	47

		Yes %	No %
14.	Should such information be available on individual school districts?		
14.1	Elementary and classroom teachers	68	15
14.2	Academic subject teachers	71	12
14.3	Handicapped teachers	71	12
14.4	Reading specialists	65	15
14.5	Facilities	71	9

Evaluation and achievement measurement

In the opinion of many CEDS representatives evaluation of educational programs has not reached a highly satisfactory level. If we look at the first column of question 15 which combines the "good" and "fair" categories, we see that only two types of programs are rated by as many as three-fourths of the responding states as having satisfactory evaluation techniques currently in use. The two programs--handicapped and vocational--are consistent with the characteristics on which most states have data available for classification purposes. In some cases there are definite reasons for low levels of program evaluation reported, e.g. the need for bi-lingual programs is limited to only a few states. This is revealed by the number (one-third) of states which responded that information is not available in this area.

The amount of "good" quality program evaluation information on upgrading reading and arithmetic skills is very low - 18 percent for reading and 15 for arithmetic. Furthermore, question 16 indicates that achievement information is not widely held at the state level since only one-third report having information at that level. Nor is it available in excess of 50 percent of the cases at other levels. According to the response to question 17, achievement reports are rarely used by states. Virtually none of the states use achievement information as a major component of general state aid, one state uses it for distribution of federal aid, and only six states (18 percent) use such data for distribution of categorical state aid for compensatory programs. Approximately one-third of the states reporting use achievement data to identify target schools and occassionally for general policy-making.

A number of representatives remarked that achievement data are a

much more localized item for collection and use. In other words, while achievement data may be an informational input at the school level, they are not standardized for state collection, consumption, or comparison. A few states report programs just getting underway to institute statewide testing and collection of achievement data. This is another subject on which some CEDS representatives registered sensitivity to standardization and a hearty skepticism concerning the possible uses of such data.

		Total Good & Fair %	Good %	Fair %	Poor %	Not Available %
15.	How would you characterize the program evaluation information in your state concerning the following programs?					
15.1	Vocational education	82	47	35	12	0
15.2	Upgrading reading skills	59	18	41	27	12
15.3	Upgrading arithmetic skills	53	15	38	29	15
15.4	Other programs for the disadvantaged	71	27	44	21	6
15.5	Pre-Kindergarten	24	6	18	18	53
15.6	Bi-lingual	30	9	21	29	32
15.7	Handicapped	76	32	44	12	6
15.8	Enrichment	27	6	21	44	21

		Yes %	No %
16.	Are reading and mathematics achievement information routinely available?		
16.1	The state as a whole	32	65
16.2	School districts (LEA's)	50	44
16.3	Elementary schools	50	44
16.4	High Schools	35	56
16.5	Special programs	27	59

		Yes %	No %
17.	How are achievement data used at the state level?		
17.1	As a major component of the general aid formula	-	91
17.2	For the distribution of categorical state aid for compensatory programs	18	74
17.3	For the distribution of federal aid	3	85
17.4	For identification of target schools within school districts	32	62
17.5	In response to queries from legislators	21	65
17.6	Occasionally for general policy making	35	53

Relative usefulness of various national sources of educational data

National reports on educational data are used at various levels of frequency. In no event, however, do as many as 50 percent of the states report using any item mentioned "frequently". Federal aid data (44 percent), state and local revenue data (41 percent), and salary level data (32 percent) are most used. In the center column we see that roughly one-third to one-half of the states use the nationally reported data on an occasional basis. On the other hand, over one-third of the respondents are of the opinion that data on enrollment projections, staff characteristics, and achievement are not used and one-half report the same for pupil characterisitcs data.

On the whole, the response to questions on actual use of nationally reported data at the state level indicates only moderate explcitation of this information resource. Nevertheless, those who think the same kinds of data should not be collected from SEA's are very few (column one, question 24). The remarks in this respect generally indicate that states prefer to use their own data which are more reliable and consistent with their data needs and only occasionally find reason to go to national sources. This idea prompted at least one respondent to remark that the national agencies should decide what is needed for national purposes, whatever they are, and stop trying to fulfill everyone's data needs and demands at the same time. There is a basic inconsistency which begins to emerge at this point.

While the CEDS representatives do not give evidence of high levels of utilization of nationally reported data, they do not object strongly to their providing this information to national agencies. This suggests that the producer/user roles may not be as closely linked as is often assumed. The states may find a unidirectional flow of information to the

national level fundamentally acceptable. In other words, we can hypothesizethat 1) there is a consensus that a need for educational data at the national level does exist; and 2) the data need not necessarily be of equal use to individual states and national decision makers. This conclusion does not in any way suggest that states would provide limitless amounts of information or provide data indiscriminately.

A more vigorous response occurs regarding the collection of data about individual schools. Consistently between one-third and one-half of the respondents are of the opinion that all data items mentioned should not be collected about schools. This response matches the many comments to the effect that CEDS representatives prefer that national agencies should not require data with a level of specificity appropriate for local school district decision making.

		Not Used %	Used Occasionally %	Used Frequently %
18.	National agencies and organizations collect data from state education agencies. In your opinion, to what extent are national reports of such data used at the state level?			
18.1	Enrollment Projections	18	44	35
18.2	Pupil Characteristics	6	35	50
18.3	Staff Levels	21	47	24
18.4	Staff Characteristics	24	35	35
18.5	Salary Levels	32	53	9
18.6	Expenditures by function	29	44	21
18.7	Expenditures by program	12	41	29
18.8	Achievement	9	35	35
18.9	Physical facilities	6	53	24
18.10	Federal aid	44	44	3
18.11	State and Local Revenues	41	41	12

		SEA %	LEA %	School %
24.	What data should not be collected nationally?			
24.1	Enrollment Projections	9	29	53
24.2	Pupil Characteristics	12	27	44
24.3	Staff Levels	6	18	41
24.4	Staff Characteristics	6	18	41
24.5	Salary Levels	6	18	41
24.6	Expenditures by function	3	15	38
24.7	Expenditures by program	6	18	38

		SEA %	LEA %	School %
24.8	Achievement	12	24	41
24.9	Physical facilities	9	15	35
24.10	Federal aid	9	15	35
24.11	State and Local revenues	6	15	35

The greatest problem affecting the level of use of data is the span between the time to which data applies and the date of publication. Sixty-five percent of the states report this as a frequent problem and a large number of representatives emphasized the problem in their comments. Results showing that over one-third of the representatives feel that national data duplicates the states' holdings and are of questionable accuracy confirm the earlier stated opinion that the states prefer to use their own data. The fact that 53 percent of the states say that "information not relevant to our data needs" is an occasional problem while another 21 percent say it is a frequent problem ties in with the same general opinion on use of data.

		Frequently a problem %	Occasionally a problem %	Not a Problem %
19.	Listed below are some common reasons why data collected by national agencies may not be useful to you at the state level. Check the appropriate column according to your experience.			
19.1	Data collected are not published	24	38	18
19.2	Data are published too long after the period to which they apply	65	21	6
19.3	Level of aggregation is inappropriate (e.g. classroom, school, school district, etc.)	21	41	24
19.4	Redefining of categories renders published version useless	21	47	12
19.5	Format is not appropriate	15	32	29
19.6	Information is not relevant to our data needs	21	53	9
19.7	National data duplicates what the state already has	38	27	18
19.8	Data are of questionable accuracy	35	27	15
19.9	Definition of items on data instrument not clear	27	38	15

In asking about the descriptive quality of nationally published educational data we found that approximately 80 percent are of the opinion that data are moderately accurate for individual states. Seventy percent agree to moderate accuracy for the country as a whole. The two most frequently mentioned problems are comparability and level of generality. The fact that over half of the respondents think that the format

used to enforce comparability of data is distorting is fortified in the results of question 19. Approximately two-thirds report that the level of aggregation and redefining of categories are barriers to greater use of nationally reported data. Too high a level of generality is one by-product of the difficulties of making categories that permit comparability among fifty states.

The problem of comparability of data has not been ignored at the national level, as evidenced by the effort in the handbook series, for example. The question is very much open-ended, however, as to the extent to which states demand data to make inter-state comparisons.

The tone of most remarks in the questionnaire places emphasis on the reality that states rely on their own data. Furthermore, at this point states have to give higher priority to internal demands to fill information gaps and solve the anomalies in their own systems than they do to find ways in which to make comparisons possible with other states.

		Very Accurate %	Moderately Accurate %	Inaccurate %
21.	Do you feel that data collected and published nationally give an accurate description of the condition and progress in your state?	6	79	12
25.	Does the kind of information currently being collected contribute to an understanding of the condition and progress of education in the United States as a whole?	3	68	9

		Yes %
22.	What are the reasons contributing to less-than-desired levels of accuracy in describing the condition and progress of education in your state?	
22.1	Formats utilized to provide comparability with other states distort true description	53
22.2	Information requested is too specific for an accurate description	18
22.3	Information requested is too general for an accurate description	41
22.4	Information is too inaccurate	15

Possible problems of data collection

Three questions taken together deserve close examination for purposes of pinpointing major sources of problems in general as well as specific factors that affect the quality of data received at the national level. In question 27.1 below we see that duplication of data on a number of data instruments is a major source of problems according to just over

50 percent of the CEDS representatives and a minor source mentioned by another 27 percent. Duplication is an annoyance type problem that bears directly on the complaint of unreasonable burden in terms of cost of data collection. The cost burden is reported as a major source of problems by slightly more than 40 percent of the respondents and a minor source by another one-third. Fortunately the duplication of whole surveys is not so prevalent a source of problems. Approximately 25 percent of the representatives do mention it as a minor source due to the periodic "bootlegging" of surveys that go through without official permission.

Requests for data not otherwise collected are recorded as a major source of problems in collection in only 29 percent of the cases. However, it is a minor source of problems in more cases (44 percent) and in terms of the effects on quality of data it is perceived as a serious hindrance. Approximately 70 percent of the representatives see it as a ranking problem for data reported to national agencies by SEA's and 60 percent see it as a ranking problem for reporting from LEA's and schools. This is another problem that bears on cost of data collection as well as quality. New items require more time to gather and the resulting pressures on existing staff become greater. In fact, another ranking problem is size of staff available to fill all requests for data as we see in 30.3 and 31.3. The problem for "need for data not established" can be combined with that of "information does not lead to understanding of real issues" and "perceptions of who benefits." All of these problems can be seen as different facets of the larger problem of usefulness of data as perceived by the producer of the data. Approximately 40 percent of CEDS representatives see the lack of establishing need and the doubt as to whether particular information

enhances understanding of issues as major sources of problems for data producers. At least one-third see perceptions of "who benefits" as a ranking problem that affects the quality of data reported to national agencies.

The problem of insufficient lead time allowed the states in preparing data and in completing data instruments is pervasive as it comes through in the remarks and suggestions for improvements of the national data collection system. One-half of the representatives record this as a major source of problems and another 25 percent as a minor source. Sixty-two percent see the time factor as affecting quality of data from SEA's and approximately 50 percent as affecting quality from LEA's and schools. When asked in an open-ended question how the major sources of problems could be solved, as overwhelming majority of the respondents suggested that USOE, NCES, or some central bureau within the agency must take its coordinating and clearing house responsibilities more seriously. Other major suggestions specified the need to grant realistic lead time to producers of data, to eliminate time and cost consuming format changes so frequently, and to focus on collection of data from SEA's only and not other levels within the states.

		Major source of problems %	Minor source of problems %	Rarely source of problems %
27.	Express the extent to which the reasons for problems with data collection listed apply to your situation.			
27.1	Duplication of data items on various surveys from national agencies and organizations	53	27	6
27.2	Duplication of whole surveys	3	24	29
27.3	Requests for data not otherwise collected, i.e. new item	29	44	6
27.4	Need for data not established	41	29	12
27.5	Data instrument given to states without sufficient lead time	50	24	12
27.6	Cost of data collection burdensome	44	35	9
27.7	Information does not lead to understanding of real issues	38	24	18
27.8	Definitions of categories vague	15	41	18
27.9	Requests for data are untimely	24	44	12

	Ranked 1st %	Ranked 2nd %	Ranked 3rd %	Total %
30. What factors affect the quality of data reported to national agencies by state agencies?				
30.1 Who pays for data collection	3	12	0	15
30.2 Perceptions of who benefits from the data collected	12	9	12	33
30.3 Size of staff available to meet all requrest from all sources of data	29	24	9	62
30.4 Level of staff expertise	12	9	6	27
30.5 The time alloted for collection of data, i.e. due dates	6	21	35	62
30.6 Whether the state or its districts already collect the requested data	21	27	21	69
30.7 Quality of data provided by LEA's to state agency.	18	24	9	51
31. What factors affect the quality of data reported to the national agencies from local education agencies and schools?				
31.1 Who pays for data collection	6	3	0	9
31.2 Perceptions of who benefits from the data collected	24	9	6	39

		Ranked 1st %	Ranked 2nd %	Ranked 3rd %	Total %
31.3	Size of staff available to meet all requests from all sources for data	15	21	15	51
31.4	Level os staff expertise	15	24	6	45
31.5	The time allotted for collection of data, i.e. due dates	3	18	27	48
31.6	Whether the requested data is routinely collected	21	15	24	60

Suggestions for improvement of educational data systems

A set of general guidelines to set the parameters of an improved program for educational data systems is fairly widely agreed upon. Approximately 60 percent of the respondents agree that 1) the national data collection system should continue to be voluntary, 2) data collection costs should be funded by the federal government to the extent that federal agencies increase the cost of collection by their requests to the states, and 3) the National Center for Educational Statistics of USOE should collect data from state educational agencies and have the responsibility of providing a national educational data base.

Along with partial funding of data collection by the federal government, 77 percent agree that there should be imposition of some kind of standards, although these standards are not specified.

It is interesting to note that almost one-third of the group think that the federal data collection should be non-voluntary (similar

to the U.S. Census) and of those eleven who make up the third, six agree that data collection should be totally funded by the federal government with standards imposed. In other words, 20 to 33 percent of the group can visualize more rigorous measures to insure system maintenance as a necessity for improvement.

In connection with number 3 above, most of the 60 percent indicated specifically in this question that collection by the federal government should be from state educational agencies and not from any smaller local units within the states. About 60 percent also agree that there is not a need for a new bureau within HEW to coordinate or otherwise provide a national system.

In the following set of questions the various suggested methods for improvement are broken down into their major elements. Please check (x) the statements you believe to be feasible and desirable.

	Checked %
32. Voluntary vs. non-voluntary approach	
32.1 Continue with voluntary system similar to the one which now exists	62
32.2 Federal data collection should be non-voluntary (similar to the U.SCensus)	32
33. The costs of data collection should be funded.	
33.1 Totally by the federal governments	27
33.2 partially (to cover the additional costs incurred by meeting federal agencies' requests for information) by the federal government	59
33.3 by source other than the federal government (specify)	6

	Checked %
34. The federal government should	
34.1 fund data collection and impose standards	77
34.2 fund data collection and not impose standards	15
34.3 not fund data collection, but should impose standards	0
34.4 not fund data collection and not attempt to impose standards	3
35. The National Center for Educational Statistics of U. S. Office of Education should be expanded and strengthened with a capability to	
35.1 directly collect data in the field and provide a comprehensive national educational data base	0
35.2 collect data from state and local education agencies and provide a national educational data base	62
35.3 collect directly, or from other agencies, and publish only the important information for which a demand exists, but which cannot currently be supplied from any source in the necessary form	15
35.4 disagree with idea that NCES should be involved with improvement scheme	6
36. A new bureau under the Department of Health, Education and Welfare should be established to	
36.1 collect and bring together for publication data which relates education to the other areas of socio-economic concerns	6
36.2 provide a national educational data system	12
36.3 do not agree with suggestion for new agency under HEW	59

RESPONDENTS TO CEDS QUESTIONNAIRE

REGION	RESPONDENTS	NON-RESPONDENTS
Mid-Atlantic	Connecticut	New Hampshire
	Maine	
	Massachusetts	
	Rhode Island	
	Vermont	
	Deleware	
	Maryland	
	New Jersey	
	New York	
	Pennsylvania	
Southeast	Arkansas	Alabama
	Florida	North Carolina
	Georgia	South Carolina
	Kentucky	West Virginia
	Mississippi	
	Tennessee	
	Virginia	
Mid-West	Indiana	Illinois
	Michigan	Missouri
	Ohio	Nebraska
	Wisconsin	
	Iowa	
	Kansas	
	Minnesota	

RESPONDENTS TO CEDS QUESTIONNAIRE

(continued)

REGION	RESPONDENTS	NON-RESPONDENTS
Mid-West	North Dakota	
	South Dakota	
Southwest & Rocky Mts.	New Mexico	Arizona
	Oklahoma	Colorado
	Texas	Montana
	Idaho	Utah
	Wyoming	
Far West	California	Washington
	Nevada	
	Oregon	
	Alaska	
	Hawaii	
Territories	Guam	Virgin Islands
		Samoa
		Puerto Rico

TO: State Representatives to the Committee on Educational Data Systems

FROM: Amos Kimberling, Chairman, CEDS Planning Committee

DATE: September 29, 1971

RE: Study for the President's Commission on School Finance

The Policy Institute of the Syracuse University Research Corporation in cooperation with the Maxwell Graduate School of Citizenship and Public Affairs of Syracuse University is currently engaged in a study for the President's Commission on School Finance. The report, tentatively titled IMPROVING INFORMATION SYSTEMS FOR EDUCATIONAL POLICY MAKING, focuses on issues important to educational policy makers.

Dr. Robert J. Goettel, project manager for the Policy Institute, has been in contact with me concerning the study for the past several weeks. In addition, Dr. Goettel discussed the study with the CEDS Planning Committee at the September meeting in Washington. As part of the study a survey is being made of CEDS representatives in order to answer the question: how can national data collection procedures be improved to better serve the information needs of states and local school districts as well as the federal government? The enclosed questionnaire represents one facet of that survey.

I know that in your role as a CEDS representative many of you have strong opinions about the procedures employed in collecting and disseminating data. Those opinions are critical to an understanding of the ways in which such procedures can be made more efficient and more useful to everyone concerned. For that reason, I urge you to complete the questionnaire in such a way that you are satisfied that the Policy Institute and, in turn, the President's Commission are apprised of your opinions.

You are encouraged to use the open-ended questions to make your thoughts known. Also, please comment on additional issues not addressed in the questions which you believe must be considered in the study. If you have any questions concerning the survey, contact: Dr. Robert Goettel at (315) 477-8662.

On behalf of the Policy Institute and the President's Commission I want to thank you in advance for your cooperation in this survey.

Sincerely,

Amos Kimberling

SURC Policy Institute

October 15, 1971

Approximately two weeks ago you should have received an Opinion Survey questionnaire with a cover memo from Amos Kimberling, Chairman of the CEDS Planning Committee. This questionnaire is one part of a study we at the Policy Institute of the Syracuse University Research Corporation are conducting for the President's Commission on School Finance. The study is tentatively titled "Improving Information Systems for Educational Policy Making."

We are finding completed questionnaires thus far returned to us extremely helpful in examining problems, issues, and viewpoints about Federal/State relations in an education information system. Since each CEDS representative is a critical link between his state and the Federal Government, it is essential that we obtain as complete a picture as possible of your opinions.

We urge you to participate in this survey for the President's Commission by sending a completed questionnaire with your comments to us by Friday, October 22. If you have any questions or, perhaps, if you would like us to send you another copy of the questionnaire, please call me collect at (315) 477-8662.

Please accept in advance our thanks for your cooperation.

Sincerely,

Dr. Robert J. Goettel
Project Director

RJG/km

Syracuse University Research Corporation, 723 University Avenue, Syracuse, New York 13210 tel: 315-477-8688

OPINION SURVEY

of the Representatives to the

Committee on Educational Data Systems

concerning

Educational Data Collection

1. Name:_____

2. Title:_____

3. Office address:_____

_____

_____

_____

4. Telephone number:_____

5. Brief description of your major responsibilities:

_____

_____

_____

_____

_____

_____

6. How long have you been a CEDS representative?

_____

7. What offices do you hold as a representative to CEDS? (in regional grouping, advisory committees to federal government, etc.)

_____

_____

ADEQUACY OF EXISTING INFORMATION USED IN EDUCATIONAL POLICY MAKING

Policy making in education typically requires analysis of information concerning potential and existing levels of funding, estimation of educational needs, assessment of adequacy of funding to meet educational needs, and evaluation of outcomes of educational programs being funded. In order to determine the perceived adequacy or inadequacy of such information, we are soliciting your opinions in the following questions. Unless otherwise specified, all questions throughout refer to information availability, etc., at the state level.

REVENUES

1. Does good information now exist for estimating your state's revenues for all governmental services from existing state tax sources?

1.1	-	In current budget year	Yes___No___
1.2	-	Through the next budget year	Yes___No___
1.3	-	Over the next 5 years	Yes___No___

2. Does good information now exist on the current revenue raising potentials (capacities) of all of your state's local governmental units now contributing to educational programs in the state?

2.1	-	In current budget year	Yes___No___
2.2	-	Through the next budget year	Yes___No___
2.3	-	Over the next 5 years	Yes___No___

3. Does good information now exist for estimating each school district's local revenue?

3.1	-	In current budget year	Yes___No___
3.2	-	In the next budget year	Yes___No___
3.3	-	Over the next five years	Yes___No___

4. Does good information now exist for estimating fiscal needs of existing state educational programs?

4.1	-	In current budget year	Yes___No___
4.2	-	In the next budget year	Yes___No___
4.3	-	Over the next five years	Yes___No___

5. Is <u>good</u> information <u>readily</u> available concerning existing levels of revenues from state and local sources?

5.1	-	At school district level (LEA)	Yes___No___
5.2	-	At school level	Yes___No___

6. Is information <u>readily</u> available concerning existing levels of revenues from federal sources?

6.1	-	At school district level (LEA)	Yes___No___
6.2	-	At school level	Yes___No___

DISTRIBUTION OF FUNDS

7. Is <u>good</u> information <u>routinely</u> available which permits the state education department to trace the distribution of categorical state and federal funds?

7.1	-	To public school districts (LEA's)	Yes___No___
7.2	-	To public schools	Yes___No___
7.3	-	To private and parochial schools	Yes___No___

8. If any of your answers to question 7 are "no", do you believe that such information should be available?

8.1	-	On public school districts (LEA's)	Yes___No___
8.2	-	On public schools	Yes___No___
8.3	-	On private and parochial schools	Yes___No___

9. Does <u>good</u> information <u>now exist</u> to insure that categorical state and federal funds distributed to school districts are used for purposes intended by the state?

9.1	-	For financial auditing	Yes___No___
9.2	-	For program auditing	Yes___No___

10. If such information (question 7-9) is not readily available, what steps would you recommend be taken to insure that it becomes available?

10.1 - Change methods of reporting on programs Yes___No___

Comment_____

10.2 - Change categorical grants to block grants Yes___No___

Comment_____

10.3 - Other (Specify):_____Yes___No___

Comment_____

_____

CLASSIFICATION CRITERIA - SCHOOLS & LEA'S

11. Does good information now exist in your state which permits classification of schools and LEA's? In terms of:

	School Districts	Schools	Not Available
11.1 Racial/ethnic characteristics	_____	_____	_____
11.2 AFDC pupils	_____	_____	_____
11.3 Handicapped pupils	_____	_____	_____
11.4 Family income of pupils	_____	_____	_____
11.5 Pupils in vocational programs	_____	_____	_____
11.6 Type of community serviced (urban commercial, urban residential, suburban, commercial, non-farming rural, etc.)	_____	_____	_____
11.7 Other _____	_____	_____	_____

12. If such data are not currently available, which items do you believe should be collected?

	School Districts	Schools
12.1 Racial/ethnic characteristics	_____	_____
12.2 AFDC pupils	_____	_____
12.3 Handicapped pupils	_____	_____
12.4 Family income of pupils	_____	_____
12.5 Pupils in vocational programs	_____	_____
12.6 Type of community serviced (urban commercial, urban residential, suburban commercial, non-farming rural, etc.)	_____	_____
12.7 Other_____	_____	_____

COMMENTS _____

_____

EDUCATIONAL NEED

13. Is good information routinely available for estimating statewide requirements? For:

13.1	-	Elementary classroom teachers	Yes___No___
13.2	-	Academic subject teachers	Yes___No___
13.3	-	Handicapped teachers	Yes___No___
13.4	-	Reading specialists	Yes___No___
13.5	-	Facilities	Yes___No___

14. Should such information be available on individual school districts?

14.1	-	Elementary classroom teachers	Yes___No___
14.2	-	Academic subject teachers	Yes___No___
14.3	-	Handicapped teachers	Yes___No___
14.4	-	Reading specialists	Yes___No___
14.5	-	Facilities	Yes___No___

EVALUATION AND ACHIEVEMENT MEASUREMENT

15. How would you characterize the program evaluation information in your state concerning the following programs?

		Good	Fair	Poor	Not Available
15.1	Vocational education	____	____	____	____
15.2	Upgrading reading skills	____	____	____	____
15.3	Upgrading arithmetic skills	____	____	____	____
15.4	Other programs for disadvanteged	____	____	____	____
15.5	Pre-Kindergarten	____	____	____	____
15.6	Bi-lingual	____	____	____	____
15.7	Handicapped	____	____	____	____
15.8	Enrichment	____	____	____	____

16. Are reading and mathematics achievement information routinely available? For:

16.1	The state as a whole	Yes___No___
16.2	School districts (LEA's)	Yes___No___
16.3	Elementary schools	Yes___No___
16.4	High schools	Yes___No___
16.5	Special programs	Yes___No___

17. How are achievement data used at the state level?

17.1	As a major component of the general aid formula	Yes___No___
17.2	For the distribution of categorical state aid for compensatory programs	Yes___No___
17.3	For the distribution of federal aid	Yes___No___
17.4	For identification of target schools within school districts	Yes___No___
17.5	In response to queries from legislators	Yes___No___
17.6	Occasionally for general policy making	Yes___No___

If you have additional comments on Adequacy of Existing Information, please make them here:

_____

_____

_____

_____

_____

_____

_____

_____

RELATIVE USEFULNESS OF VARIOUS NATIONAL SOURCES OF EDUCATIONAL DATA

Much of the data that could be drawn upon evaluating current policies and in designing new programs is scattered among a variety of national agencies and organizations. This has led to an organization of national data that has become extremely difficult to pull together for policy formulation. On the other hand much of this data is (or possibly could be) extremely useful in policy making at all levels of educational administration.

18. **National agencies and organizations collect data from state education agencies, local educational agencies and schools. In your opinion, to what extent are national reports of such data <u>used</u> at the levels indicated?**

Enter numbers as appropriate:
0 don't know; no opinion
1 not used
2 used occasionally
3 used frequently

KINDS OF DATA REPORTED NATIONALLY	LEVELS State	LEA	School	COMMENTS
18.1 Enrollment Projections				
18.2 Pupil Characteristics				
18.3 Staff Levels				
18.4 Staff Characteristics				
18.5 Salary levels				
18.6 Expenditures by function				
18.7 Expenditures by program				
18.8 Achievement				
18.9 Physical Facilities				
18.10 Federal Aid				
18.11 State and Local Revenues				
18.12 Other				

19. Listed below are some common reasons why data collected by national agencies may not be useful to you at the state level. Check the appropriate column according to your experience.

		Frequently a Problem	Occasionally a Problem	Not a Problem
19.1	Data collected are not published	_____	_____	_____
19.2	Data are published too long after the period to which they apply	_____	_____	_____
19.3	Level of aggregation is inappropriate (e.g. classroom, school, school district, etc.)	_____	_____	_____
19.4	Redefining of categories renders published version useless	_____	_____	_____
19.5	Format is not appropriate	_____	_____	_____
19.6	Information is not relevant to our data needs	_____	_____	_____
19.7	National data duplicates what the state already has	_____	_____	_____
19.8	Data are of questionable accuracy	_____	_____	_____
19.9	Definition of items on data instrument not clear	_____	_____	_____
19.10	Other (Specify):_____	_____	_____	_____

20. Give a brief statement, or examples, of kinds of national data that are not used to any appreciable extent at the state level and the primary reason (s) why this is the case.

_____

_____

_____

_____

_____

_____

21. Do you feel that data collected and published nationally give an accurate description of the condition and progress of education in your state?

Yes, very accurate description _____

Moderately accurate _____

Inaccurate _____

22. What are the reasons contributing to less-than-desired levels of accuracy in describing the condition and progress of education in your state? Check all that apply.

22.1 Formats utilized to provide comparability with other states distort true description _____

22.2 Information requested is too specific for an accurate description _____

22.3 Information requested is too general for an accurate description _____

22.4 Information is too inaccurate _____

22.5 Other (Specify): _____ _____

23. What additional or substitute information would you want national agencies to collect to achieve your desired level of accuracy of describing the condition and progress of education in your state?

KINDS OF DATA	LEVELS State	LEA	School	COMMENTS
23.1 Enrollment Projections				
23.2 Pupil Characteristics				
23.3 Staff Levels				
23.4 Staff Characteristics				
23.5 Salary Levels				
23.6 Expenditures by function				
23.7 Expenditures by program				
23.8 Achievement				
23.9 Physical Facilities				
23.10 Federal Aid				
23.11 State and Local Revenues				
23.12 Others (Specify):				

24. What data should not be collected nationally?

KINDS OF DATA	LEVELS			COMMENTS
	State	LEA	School	
24.1 Enrollment Projections				
24.2 Pupil Characteristics				
24.3 Staff Levels				
24.4 Staff Characteristics				
24.5 Salary Levels				
24.6 Expenditures by Function				
24.7 Expenditures by Program				
24.8 Achievement				
24.9 Physical Facilities				
24.10 Federal Aid				
24.11 State and Local Revenues				
24.12 Other (Specify): _____				

25. Does the kind of information currently being collected contribute to an understanding of the condition and progress of education in the United States and its territories as a whole?

Yes, very accurate description _____

Moderately accurate _____

Inaccurate _____

COMMENTS: _____

_____

_____

26. What kinds of additional or substitute information do you think would contribute to a greater understanding of the condition and progress of education in the country as a whole?

KINDS OF DATA	LEVELS State	LEA	School	COMMENTS
26.1 Enrollment Projections				
26.2 Pupil Characteristics				
26.3 Staff Levels				
26.4 Staff Characteristics				
26.5 Salary Levels				
26.6 Expenditures by Function				
26.7 Expenditures by Program				
26.8 Achievement				
26.9 Physical Facilities				
26.10 Federal Aid				
26.11 State and Local Revenues				
26.12 Others (Specify):				

If you have additional comments on Relative Usefulness of Various National Sources of Educational Data, please make them here:

POSSIBLE LIMITATIONS ENCOUNTERED IN GATHERING DATA

Problems of Data Collections

27. State and local agencies as producers of data have registered a number of complaints about the collection procedures employed by national agencies. In order to pinpoint major problem areas several possible reasons for complaint are given below. Use the following code to express the extent to which the reasons listed apply to your situation (adding problem areas as required) and give examples of specific problems which you have experienced.

Enter numbers as appropriate
0 not a problem
1 rarely a source of problems
2 minor source of problems
3 major source of problems

		Code Number	Example of Specific Problems
27.1	Duplication of data items on various surveys from national agencies and organizations	____	_____
27.2	Duplication of whole surveys	____	_____
27.3	Requests for data not otherwise collected, i.e. new item	____	_____
27.4	Need for data not established	____	_____
27.5	Data instrument given to states without sufficient lead time	____	_____
27.6	Cost of data collection burdensome	____	_____
27.7	Information does not lead to understanding of real issues	____	_____
27.8	Definitions of categories vague	____	_____
27.9	Requests for data are untimely	____	_____
27.10	Other (Specify): _____	____	_____

28. How do you think the major problem areas you checked above can be resolved?

_____

_____

_____

SUPPORT OF DATA COLLECTION

29. The burden of collecting data for the federal government is unevenly distributed among states, school districts and schools within each state. How could the agencies bearing the greater burden for supplying data be most effectively helped if additional federal funds were made available to states and local districts for data collection? Please check one.

29.1 By spending funds on strenghthening state education departments' informations systems particularly in overburdened states _____

29.2 By providing additional funds to local school districts included in survey samples _____

29.3 Have data collected by field staff of national agencies or organizations _____

29.4 Use only data regularly reported to state education agencies by the local education agency _____

29.5 Other (Specify): _____ _____

_____

30. What factors affect the quality of data reported to national agencies by state agencies? Indicate the three most important factors by ranking 1st, 2nd, 3rd.

30.1 Who pays for data collection _____

30.2 Perceptions of who benefits from the data collected _____

30.3 Size of staff available to meet all requests from all sources for data _____

30.4 Level of staff expertise _____

30.5 The time allotted for collection of data, i.e. due dates _____

30.6 Whether the state or its districts already collect the requested data _____

30.7 Quality of data provided by LEA's to state agency _____

30.8 Other (Specify): _____ _____

_____

31. What factors affect the quality of data reported to national agencies from local education agencies and schools. Indicate the three most important factors by ranking 1st, 2nd, 3rd.

31.1 Who pays for data collection _____

31.2 Perceptions of who benefits from the data collected _____

31.3 Size of staff available to meet all requests from all sources for data _____

31.4 Level of staff expertise _____

31.5 The time allotted for collection of data, i.e. due dates _____

31.6 Whether the requested data is routinely collected _____

31.7 Other (specify): _____ _____

_____

If you have additional comments on Possible Limitations Encountered in Gathering Data, please make them here:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

SUGGESTIONS FOR IMPROVEMENT OF EDUCATIONAL DATA SYSTEMS

Several methods on how to improve the collection and availability of data bearing on educational policies and programs have been suggested. The methods include many different facets which are not mutually exclusive, for example: Who should finance data collection? To what extent? Should standards be imposed? In the following set of questions the various suggested methods for improvement are broken down into their major elements. Please check (x) the statements you believe to be feasible and desirable.

32. Voluntary vs. non-voluntary approach

- 32.1 Continue with voluntary system similar to the one which now exists _____
- 32.2 Federal data collection should be non-voluntary (similar to the U.S. Census) _____
- 32.3 no opinion _____

33. The costs of data collection should be funded

- 33.1 totally by the federal governments _____
- 33.2 partially (to cover the additional costs incurred by meeting federal agencies' request for information) by the federal government _____
- 33.3 by source other than the federal government (specify): _____ _____
- 33.4 no opinion _____

34. The federal government should

- 34.1 fund data collection and impose standards _____
- 34.2 fund data collection and not impose standards _____
- 34.3 not fund data collection, but should impose standards _____
- 34.4 not fund data collection and not attempt to impose standards _____
- 34.5 no opinion _____

35. The National Center for Educational Statistics of U.S. Office of Education should be expanded and strengthened with a capability to

35.1 directly collect data in the field and provide a comprehensive national educational data base _____

35.2 collect data from state and local education agencies and provide a national educational data base _____

35.3 collect directly, or from other agencies, and publish only the important information for which a demand exists, but which cannot currently be supplied from any source in the necessary form _____

35.4 disagree with idea that NCES should be involved with improvement scheme _____

35.5 no opinion _____

36. A new bureau under the Department of Health, Education and Welfare should be established to

36.1 collect and bring together for publication data which relates education to the other areas of socio-economic concerns _____

36.2 provide a national educational data system _____

36.3 do not agree with suggestion for new agency under HEW _____

36.4 no opinion _____

If you have any additional comments on Suggestions for Improvement of Educational Data Systems, please make them here:

_____

_____

_____

_____

Thank you for your assistance. Please place this questionnaire in the attached envelope and mail. If you have additional comments or suggestions, feel free to include them on the back of this page.

ADDITIONAL COMMENTS

Appendix B

A LISTING

OF

NATIONAL DATA SOURCES FOR EDUCATION

SELECTED EDUCATIONAL DATA - HEW/USOE

TITLE/DESCRIPTION	SOURCE	LEVEL	FREQUENCY/ SINCE	SAMPLE OR UNIVERSE
Digest of Educational Statistics (compendium of education statistics collected by O.E. and other governmental and non-governmental sources. In Elementary and Secondary it includes: enrollment, teachers and staff, schools and school districts, rooms and facilities, high school graduates, income, and expenditure data.)	NCES	state	annual (1962)	Both
Projections of Educational Statistics (based on current statistics. projects enrollment, teachers and staff needs, revenues and expenditures)	NCES	national	annual (1964)	(projects current statistics)
Statistics of Local Public School Systems (ELSEGIS) (pupils, schools, staff, and expenditures)	NCES	district	annual (1967)	Universe (25,000+ pupils) Sample (< 25,000)
Statistics of Local Public School Systems Finances (ELSEGIS SURVEY) (finances of school districts listed by enrollment size)	NCES	district	annual (1967)	"

TITLE/DESCRIPTION	SOURCE	LEVEL	FREQUENCY/ SINCE	SAMPLE OR UNIVERSE
EDUCATION DIRECTORY	O.E.		Annual	
State Governments (principal school officers of states, boards of education, vocational education, and library extension)	B.E.S.E. div of state agency cooperation	state	annual	universe
Public School Systems (name of district, superintendent's location; county name; grade span; enrollment; name of superintendent for districts 10,000 +)	NCES	district	Annual	universe
Higher Education (basic information about "college level" institutions)	NCES	institution	annual	universe
Education Associations (lists various education associations i.e. S.E.A.'s; Foundations; Religious, International Education Associations; recognition societies)	O.E. office of Public Affairs	association	annual	universe

SELECTED EDUCATIONAL DATA

TITLE/DESCRIPTION	SOURCE	LEVEL	FREQUENCY/ SINCE	SAMPLE OR UNIVERSE
Statistics of Public Elementary and Secondary Day Schools (pupils, teachers, instruction rooms, and expenditures)	NCES	state & 14 selected large cities	annual (1954)	universe of states
Statistics of Public Elementary and Secondary Day Schools Advance Report	NCES	state & 14 selected cities	annual	universe of states
Preprimary Enrollment of Children Under Six (no. and percentage of children enrolled by type of school, income, occupation, race, metro/nonmetro, region)	NCES	national	annual (1964)	sample
Bond Sales for Public School Purposes (results of bond elections; new bond sales)	NCES	national	annual 1959	survey of Bond Market reports. (Daily Bond Buyer)
Statistics of State School Systems (no. of operating and non-operating schools; elementary and secondary - some 500 to 600 items)	NCES	state	biennial 1919	universe

SELECTED EDUCATIONAL DATA - HEW/USOE, con't.

TITLE/DESCRIPTION	SOURCE	LEVEL	FREQUENCY/ SINCE	SAMPLE OR UNIVERSE
Directory Public Schools in Large Districts (lists enrollment and staff, by RACE)	Office of Civil Rights, HEW	district	periodic	sample (civil rights comprehensive reports)
Coleman Report (segregation; school characteristics and achievement measures, relation of two; special studies: i.e. Vocational Education)	NCES	7 Regions (i.e. New England)	single time (1966)	sample
Statistics of Non-Public Elementary and Secondary Schools, 65-66	NCES	national		universe
Personal Income by School District in the United States (by five digit zip codes)	NEFP	district	single time (1966 data)	iniverse

SELECTED EDUCATIONAL DATA - OTHER FEDERAL AGENCIES

TITLE/DESCRIPTION	SOURCE	LEVEL	FREQUENCY/ SINCE	SAMPLE OR UNIVERSE
Census of Population	Bureau of the Census	Census Tract	decennial	Universe
School Enrollment	"	"	(1840)	"
School Attainment	"	"	(1940)	"
Current Population Survey (S)*	Bureau of the Census	Census Tract		
School Enrollment	"	"	annually 1945	sample
Educational attainment and illiteracy	"	"	periodic 1947	"

SELECTED EDUCATIONAL DATA - OTHER FEDERAL AGENCIES, con't.

TITLE/DESCRIPTION	SOURCE	LEVEL	FREQUENCY/ SINCE	SAMPLE OR UNIVERSE
Public School Systems, Schools, and Pupils Enrolled	1967 Census of Governments Vol. 1.	S.M.S.A./ Outside S.M.S.A.*	quinquennial (1957)	universe
"	"	State	"	"
"	"	S.M.S.A.	"	"
"	"	County	"	"
Public School Systems, Schools, and Pupils Enrolled, By Type	"	state	"	"
Employment Statistics for Individual School Districts	Vol 3.	District (by county)	"	universe (3,000+ pupils)
Employment and Payrolls	Vol 3.	State (by size category)	"	universe

* S.M.S.A. stands for Standard Metropolitan Statistical Area. A two part division into metropolitan and nonmetropolitan districts will hereinafter be referred to as (M/NM)

TITLE/DESCRIPTION	SOURCE	LEVEL	FREQUENCY/ SINCE	SAMPLE OR UNIVERSE
Summary of School District Finances	1967 Census of Governments Vol. 4.	state	quinquen-- nial (1957)	universe "
General Revenue of School District	"	state (m/nm)	"	"
General Expenditures of School Districts, by Character and Object	"	"	"	"
Percent Distribution of General Revenue and General Expenditure of School Districts	"	"	"	"
School District Indebtedness and Debt Transaction	"	"	"	"
Cash and Security Holdings of School Districts	"	"	"	"
Financial Statistics of School Districts	"	state (by enroll- ment size)	"	"

SELECTED EDUCATIONAL DATA - OTHER FEDERAL AGENCIES, con't.

TITLE/DESCRIPTION	SOURCE	LEVEL	FREQUENCY/ SINCE	SAMPLE OR UNIVERSE
Financial Statistics of School Districts	1967 Census of Governments Vol. 4.	District	quinquennial (1957)	universe (3,000+ pupils)
Summary of School District Finances By Grade Covered	"	National	"	Universe
Elected Officials and Members of Governing Boards of School Districts	Vol. 6.	State and (m/nm)	"	"
Elected Officials and Members of Governing Boards of Dependent Local School Systems	"	State	"	"
Population Census Reports, Vol I Series PC(1)-A; Number of Inhabitants	Bureau of the Census	State, County (by urb and rural), SMSA, urbanized area, county subdivisions, all incorporated places, unicorp. with pop. over 100 1000.		universe
Series PC(1)-B; General Population Characteristics		as above		universe

SELECTED EDUCATIONAL DATA - OTHER FEDERAL AGENCIES, con't.

TITLE/DESCRIPTION	SOURCE	LEVEL	FREQUENCY/ SINCE	SAMPLE OR UNIVERSE
Series PC(1)-C; General Social and Economic Char.		State, County, (by urban, rural-honfarm, and rural-farm residence), SMSA, urbanized areas, and places 2,500 inhabitants plus		universe
Series PC(1)D; Detailed Characteristics		State (by urban, rural-nonfarm, and rural-farm residence, SMSA, and large cities		universe
Volume II, Subject Reports Series PC(2)		States, SMSA		universe
Housing Census Reports Volume I; Housing Characteristics for States, Cities, and Counties	Bureau of the Census			
Series HC(1)A; General Housing Char.		States(by urban and rural residence), SMSA, urbanized areas, places of 1,000 inhab. or more, counties		universe
Series HC(1)B; Detailed Characteristics		States (by urban and rural residence), SMSA, urbanized areas, places of 2,500		

SELECTED EDUCATIONAL DATA - OTHER FEDERAL AGENCIES, con't.

TITLE/DESCRIPTION	SOURCE	LEVEL	FREQUENCY/ SINCE	SAMPLE OR UNIVERSE
Volume II; Metropolitan Housing Char		SMSA, Component Counties, national summary		
Volume III; Block Statistics		one report for each urbanized area		
Volume IV; Components of Inventory Changw		US Summary and 15 Selected SMSA's		
Volume V; Residential Finance		US and Regions		
Volume VI; Estimates of "Substandard" Housing		Cities, Counties		
Joint Population-Housing Reports Series PHC(1); Census Tract Reports		SMSA's only by tract		

SELECTED EDUCATIONAL DATA - INTEREST GROUPS

TITLE/DESCRIPTION	SOURCE	LEVEL	FREQUENCY/ SINCE	SAMPLE OR UNIVERSE
The American Public School Teacher (Examines the personal and professional status of teachers)	NEA	National (4 regions)	quinquennial (1956)	sample
Teacher Supply and Demand in Public Schools	NEA	state & nation	annual (1948)	sample
Salary Schedules	NEA	district	annual (1929)	both universe (6000+ pupils) sample (<6000)
Teachers	"	"	annual	
Supervisory & administrative personnel	"	"	annual	universe (6000+ pupils)
Principals	"	"	biennial	
Salary Survey of Public School Professional Personnel, 1969 (survey of salaries paid to teachers, principals, counselors, central office administrators and others)	NEA	district (12,000+ pupils)	biennial 1921	universe (12,000+ pupils) sample (<12,000)

TITLE/DESCRIPTION	SOURCE	LEVEL	FREQUENCY/ SINCE	SAMPLE OR UNIVERSE
Estimates of School Statistics, 1970-71 (No. of units, pupils, staff, revenue and expenditures)	NEA	state	annual (1942-43)	
Selected Statistics of Local School Systems (pupil, teacher, and financial information primarily for large school districts)	NEA	district	annual (1960-61)	universe (25,000+ pupils) sample (of high salary district)
High Spots in State School Legistation	NEA	state	annual (1936)	universe
Rankings of the States (129 lists)	NEA	state		universe
Economic Status of the Teaching Profession	NEA	national	annual (1945-46)	sample
Financial Status of the Public Schools (status and trends in school finance)	NEA	state (large districts)	annual (1964)	Both

SELECTED EDUCATIONAL DATA - INTEREST GROUPS, con't.

TITLE/DESCRIPTION	SOURCE	LEVEL	FREQUENCY/ SINCE	SAMPLE OR UNIVERSE
A Statistical Report on Catholic Elementary and Secondary Schools	NCEA* data bank		Single time 67-68 68-69	sample
A Report on U.S. Catholic Schools	NCEA data bank		Annual (1970-71)	sample
Survey of Programs and Plans for State Assistance to Nonpublic Schools- Elementary and Secondary	NCEA	state	? 1970-71	
Directory of Catholic Special Facilities and Programs in the United States for Handicapped Children and Adults	NCEA			

* NCEA stands for National Catholic Education Association

Appendix C

RECOMMENDATIONS & CURRENT STATUS

OF KELLY COMMITTEE RECOMMENDATIONS

The Committee on Educational Finance Statistics (James A. Kelly, chairman) was appointed by the late James E. Allen, former U.S. Commissioner of Education. The Committee Report including nine specific recommendations for improving the statistical program of USOE was submitted to Dr. Allen in March, 1971. The nine recommendations, implementation plans of the National Center for Educational Statistics and cost estimates comprise this appendix section.

Recommendations of the Committee for Educational Finance Statistics and NCES Plans for Implementation

Recommendation	NCES Plan for Implementation	Estimated Cost for FY '72
1. Development and publication of a set of common denominators relevant to issues in American education with comparisons between State and local data on these denominators. The development of criteria for stratification of schools and school systems for a denominator such as demands for educational services. The development of a workable index of the incidence of poverty.	Contract with a university or research institute. They could use data from USOE and sources such as Census, ACIR, and National Assessment.	$100,000
2. Combine USOE data with local government data from the Census of Governments.	Contract with a university or other group to analyze ELSEGIS, State School Systems and Belmont data with data compatible from 1972 Census of Governments. Full implementation will have to wait for the completion of the 1972 Census of Governments.	
3. Project of mapping school districts against Census housing and population tracts.	Is presently being done on contract and is part of DSIS's 5 year plan.	
Research in the development of usable techniques for comparing Census of Population and Housing data with ELSEGIS data.	Would be done by contract with a university or research institute.	$100,000
Comparison of ELSEGIS data with 1970 Census of Population and Housing for population.		

Recommendation	NCES Plan for Implementation	Estimated Cost for FY '72
Development of new school accounting methods and formats for LEA's and revision and implementation through Handbook II series is OE Technical Assistance to States and LEA's.	Is presently being included in DSIS's 5 year plan.	
4. Expand ELSEGIS and other OE surveys to include Federal programs not administered by USOE, which are administered by schools and school districts.	Incorporate relevant questions into present questionnaires. Implementation has begun.	
Collect data concerning funds administered to school-age children within an attendance area by agencies other than schools.	Contract for a feasibility study to determine whether enough funds are distributed this way to make it worth the cost of collecting the data. Not planned for implementation in FY '72.	
5. Expand ELSEGIS sample to include a separate survey with all SMSA's in which the largest central cities are located.	Initiate a sub-survey of the ELSEGIS survey to generate data for these intra-SMSA comparisons. Presently being planned for ELSEGIS IV, this fall. Would be done in-house.	
6. Expand the ELSEGIS survey sample size.	The sample size for ELSEGIS III, 1970-71 was increased.	
7. Collect data at the individual school and administrative unit level on educational program, pupil population, personnel, revenue, expenditure, and output for a random sample of school in large cities.	Implementation of this would be dependent upon the development of workable criteria for the stratification of schools according to school and community characteristics as described in recommendation #1.	

Recommendation	NCES Plan for Implementation	Estimated Cost for FY '72
8. Collect and publish State data on an annual basis and by Federal title as well as by Federal Act.	Expansion of the State School Systems survey would be done in-house.	
9. Develop mechanisms to coordinate USOE data collection activities with those of other agencies in the Federal government.	Hire a person as liaison with other Federal agencies. Planned for FY '72.	

Appendix D

NCES SURVEYS SCHEDULED FOR FISCAL YEARS

1970, 1971, AND 1972

NCES SURVEYS SCHEDULED FOR FY 70, FY 71 AND FY 72

OF SPECIAL INTEREST TO STATE DEPARTMENTS OF EDUCATION

(NOTE: M=Mailout D=Due Date)

SURVEY TITLE		FY 71 J A S O N D J F M A M J	FY 72
Local Public School Systems (Education Directory, Part 2)	M-7/69 D-8/69	M-D	M-7/71 D-8/71
Current Expenditures Per Pupil (PL 89-10)	M-5/70 D-5/70	M/D	M-5/71 D-5/71
Statistics of State School Systems	M-2/69 D-4/69		M-2/71 D-4/71
Adult Education in Public Schools	M-4/70 D-6/70		M-4/72 D-6/72
Elementary & Secondary Public School Universe	M-10/69 D-1/70		
ELSEGIS II A School Systems Staff	M-1/70 D-2/70		
B School Systems Finance	M-1/70 D-2/70		
ELSEGIS III A School Systems Staff		M——— D	
B School Systems Finance		M——————— D	
C School Data (Universe)		M—— D	
D LEA Media Centers		M——— D	

9/25/70

SURVEY TITLE	FY 70	FY 71 J A S O N D J F M A M J	FY 72
ELSEGIS IV A School Systems Staff			M-8/71 D-12/71
B School Systems Finance			M-8/71 D-3/72
C School Data (Universe)			M-8/71 D-11/71 1/
D Offerings and Enrollment			M-8/71 D-1/72
Survey of State Library Agencies			M-8/71 D-10/71
School Staffing Survey	M-4/70 D-5/70		
Fall Survey of Public School Statistics	M-9/69 D-11/69	M--D	M-9/71 D-11/71
Non-Public (non-Catholic) School Survey		M----D	
Survey of Reading Instruction (small pretest)		M--D	M-2/72 D-3/72
Vocational Education - Student and Staff Characteristics			M-4/72 D-6/72
Longitudinal Survey:			
Early Cohort Pilot			2/
Secondary School Pilot			M-4/72 D-5/72

1/ Tentative, See footnote #4 on page 5
2/ Pilot study only in FY 72

NATIONAL CENTER FOR EDUCATIONAL STATISTICS

Surveys and Other Selected Projects 1/

FY 70, FY 71, and FY 72

	Year of Data Collection	Number of Respondents	Discussed With CEDS?
1. Local Public School Systems (Annual)			
A project involving mailing computer listings of LEA's in each State to the State Education Agencies (one per State) for manual updating and return. The changes are then edited, coded, keypunched, and merged into the existing universe file. The listings which are run from the updated files are used as a camera copy for the Education Directory; Part 2, Public School Systems. Beginning with 1969-70, the Directory will include all districts, rather than just those with enrollments over 300, as in previous years.	FY 70	55 SEA's 2/	Yes
	FY 71	55 SEA's 2	Yes
	FY 72	55 SEA's 2/	Yes
2. Current Expenditures Per Pupil (Annual)			
Collection and summary of local level expenditures for free public elementary and secondary education and computation of State and National average per-pupil expenditures. This report serves as the basis for computing ESEA, Title I State Allotments and is required annually by ESEA.	FY 70	55	Yes
	FY 71	55	Yes
	FY 72	55	Yes

1/ Including surveys and projects of particular interest to SEA's, LEA's, and elementary and secondary schools.
2/ Although 1,800 local school systems were surveyed in ELSEGIS II, in every instance the data were collected through the SEA which frequently provided data from its own records.

9/25/70

	Year of Data Collection	Number of Respondents	Discussed With CEDS?
3. Statistics of State School Systems (Biennial) A project providing for the conduct of the 1969-70 survey for the biennial collection and dissemination of State summary data on the public elementary and secondary schools. Data are collected from the States and outlying areas on School districts, pupils, staff, school property, school services, and school finance. Data are edited for validity and reliability, and then published in a major publication with over 50 tables comprised of over 500 columns of data. The publication also includes some discussion of the data and a section of technical notes.	FY 71	58	Yes
4. Survey of Adult Education in Public Schools (Biennial) To obtain from State education agencies data on the adult education programs in each State, whether sponsored by or provided in public schools, with some information on enrollees, instructional staff, and type of program.	FY 70 FY 72	55 55	Yes Yes
5. Elementary and Secondary Public School Universe, 1969-70 (Annual) Maintaining and expanding the utility of a school universe and mailing list needed for internal survey and sampling procedures as well as serving the needs of other government agencies and the general public. (To be absorbed into ELSEGIS beginning with 1970-71.)	FY 70	1/	Yes

1/ Although 90,000 schools are covered by this survey, 38 SEA's provide the information from existing records.

	Year of Data Collection	Number of Respondents	Discussed With CEDS?
6. Elementary Secondary General Information Survey (ELSEGIS)			
a. ELSEGIS II A, II B, 1969			
The collection of Fall 1969 data at the district level on elementary and secondary schools, pupils, and staff, (Part A) and of 1968-69 Finances (Part B).	II A FY 70 II B FY 70	1,800 1/ 1,800	Yes Yes
b. ELSEGIS III (Annual) **ELSEGIS III A, III B, III C, III D, 1970-71**			
The collection of Fall 1970 data at the district level on elementary and secondary staff (Part A), 1969-70 Finances (Part B), and Fall 1970 Universe data at the elementary and secondary school level (Part C), and Fall 1970 school media center data at the district level on holdings, expenditures, and staff (Part D). Parts A, B, and C are intended to become the annual ELSEGIS core in future years. Part D is intended each year for other specialized studies, i.e., curriculum, facilities, etc. on a rotating basis.	III A FY 71 III B FY 71 III C FY 71 III D FY 71	2/ 2/ 2/ 2/	Yes Yes Yes Yes
c. ELSEGIS IV **(ELSEGIS IV A, IV B, IV C, IV D, 1971-72)**			
The collection of Fall 1971 data at the district level on elementary and secondary staff (Part A), 1970-71 finances (Part B), and Fall 1971 Universe data at the elementary and secondary school level (Part C), and Fall 1971 offerings and enrollments (Part D).	IV A FY 72 IV B FY 72 IV C FY 72 3/ IV D FY 72	2/ 2/ 2/ 2/	Yes Yes Yes Yes

1/ See Footnote #2 on page 3.

2/ Approximately 5,500 LEA's and 90,000 schools will be covered in this survey. However, NCES plans to contract on a cost-sharing basis with SEA's to provide these data. Wherever possible, SEA's will extract these data from existing State records and reports, so that the LEA's and schools frequently will not have to complete survey forms.

3/ Because of limited resources within NCES, the proposal was made to forego Part C, with selected items about pupils being collected on Part A. The CEDS Planning Committee has recommended that ELSEGIS IV proceed as previously scheduled. The manner of collecting Part C has not been resolved as of 9/25/70.

	Year of Data Collection	Number of Respondents	Discussed With CEDS?
7. Survey of Library Functions at the State Level 1/			
To assist with State library planning, separate library functions within State governments will be canvassed. Beginning with a survey of library development (extension) functions at the State level, other functions will be examined in turn (e.g., general collections, law libraries, legislative reference, medical libraries, etc.)	FY 72 (Tentative)	125	Yes
8. School Staffing Survey			
A survey examining the staffing patterns and functions of elementary and secondary schools and how school staffing relates to the differing pupil populations served. Attention will also be directed toward provisions of instruction for special groups of students: those with reading problems, handicapped, etc., and the methods employed to identify these students. The next survey in this area is planned for FY 73 as Part D of ELSEGIS V.	FY 70	4,500 2/	Yes
9. Fall Survey of Public Schools (Annual) 3/			
A survey of State education agencies and outlying areas to obtain data on public elementary and secondary education. Data are requested for each State, 15 largest cities (1960 census), outlying areas, and DOD overseas schools on districts, teachers, membership by grade, schoolhousing,	FY 70	58	Yes
	FY 71	58	Yes
	FY 72	58	Yes

1/ About 17 SEA's have responsibility for State library development.
2/ A sample of 4,500 principals.
3/ Data about elementary and secondary school enrollments—obtained through the Fall Survey of Public Schools and the Nonpublic School Survey—are used for OE budget purposes and for distributing funds by formula under the provisions of ESEA and the Higher Education Facilities Act, and for examining the anticipated distribution of funds under proposed legislation. Data about high school graduates, obtained from the same surveys, are used in allotting funds under the provisions of the Economic Opportunity Act of 1964, as amended, and the Higher Education Facilities Act.

	Year of Data Collection	Number of Respondents	Discussed With CEDS?
anticipated expenditures, and high school graduates. Time limitations restrict the amount and complexity of the data to be collected to that information which is considered most essential and readily available at the beginning of the school year.			
10. Non-Public School Survey, 1969-70 (Quinquennial) 1/			
This is a general information nonpublic school survey comparable to the one done in 1965. Certain basic items such as enrollment and number of teachers by various characteristics will be covered, as well as special items (including information about school libraries) for which need is shown by various users.	FY 71 FY 71	12,000 2/ 7,000 3/	Yes Yes
11. Survey on Reading Instruction			
A survey to help determine the current range of instructional practices in reading in grades K-6. This increased knowledge of the resources devoted to reading instruction, and their deployment, will serve a wide range of educational policy makers.	Pilot: FY 71 FY 72	300 2,000	Yes Yes

1/ Data about elementary and secondary school enrollments—obtained through the Fall Survey of Public Schools and the Nonpublic School Survey--are used for OE budget purposes and for distributing funds by formula under the provisions of ESEA and the Higher Education Facilities Act, and for examining the anticipated distribution of funds under proposed legislation. Data about high school graduates, obtained from the same surveys, are used in allotting funds under the provisions of the Economic Opportunity Act of 1964, as amended, and the Higher Education Facilities Act.
2/ Roman Catholic schools. (This is a NCES survey. NCES is purchasing output tables comparable to those planned for the non-Catholic school effort.)
3/ Non-Roman Catholic schools.

	Year of Data Collection	Number of Respondents	Discussed With CEDS?
12. Survey of Characteristics of Students and Teachers in Vocational Education 1/			
A study of the type of people providing and receiving vocational education—and their objectives—for describing the characteristics of participation in programs under current vocational legislation, for measuring the extent to which the programs are reaching certain population groups (e.g., low income families), and for determining the need for new legislation.	FY 72 (tentative)	175,000 students 1/ 8,350 teachers 1/	Yes Yes

1/ A sampling of schools in 1500 LEA's.
1/ Including adult education, secondary, and post-secondary vocational and technical schools. On the basis of the previous survey it has been determined that the individual students will require an average of fifteen minutes to complete the form.

	Year of Data Collection	Number Respondents	Discussed With Cods?

13. Longitudinal Surveys

The objective of the following two surveys is to begin the development of a new basic statistics program which relates preschool environment and educational (and social) experiences to later education and adult economic and social life. It will also provide statistics on the flow of students at the various branching points in the education sequence.

A need exists to achieve a better understanding of the educational growth of students during and after their participation in the educational process. The data base will afford governmental agencies and educational policy makers a tool for assessing the relative effectiveness of different sequences of educational experiences for various categories of students. Special emphasis will be given to the measurement of motivations and other noncognitive elements; these will be used to trace degrees of success in schools, occupational histories, and other adult experiences.

Both of these surveys will be preceded by and be dependent on studies designed to help define the problems associated with conducting longitudinal surveys and with an analytic review of the various longitudinal studies and surveys now underway or previously completed by others. It is expected that these studies will provide guidance for linking this program with other surveys, eliminate duplication, and to reinforce the knowledge to be gained from each.

	Year of Data Collection	Number Respondents	Discussed With Cods?
a. Early Cohort Survey This will consist of a sample of preschool and early-school children.	FY 72	1/	Yes
b. Secondary School Cohort Survey	FY 72	20,000	Yes

1/ Pilot study only.

9/25/70

RELATED PROJECTS

1. Terminology Manual: Adult Education

2. Terminology Handbook: Community Characteristics

3. Terminology Handbook: State Education Agencies

4. Revision of Terminology Handbook: Financial Accounting for Local and State School Systems

5. Revision of Terminology Handbook: Staff Accounting for Local and State School Systems (Beginning FY 72)

6. Technical Services to State Education Agencies (Beginning FY 72)

By a contractual arrangement, specialized consultative services provided to State education agencies and, through them, to such local school systems as they may designate, assisting agencies at both levels to standardize and improve educational records and reports through plans and programs having the purpose of implementing the standardized educational terminology of the handbooks in the State Educational Records and Reports Series of the U. S. Office of Education. Through consistent service a progressively higher degree of comparability of educational information may be achieved, and consequently a higher quality of statistical reports and better communication of information and knowledge about educational activity in the Nation.

7. Implementation of the Revised Financial Accounting Handbook (Beginning FY 72)

A project in which an appropriate local school district of middle-to-large size will, through a contractual arrangement, produce a workable systems design for implementing the revised financial accounting handbook, implement the handbook in a logical and orderly manner, and develop written materials which would enable other local school systems to implement the handbook.

8. Catalog and Distribution of Federal Funds for Educational Activities

A project identifying all educational activities of the administering agencies of the Federal government; describing program beneficiaries by level, special class or group, and kind of assistance; indicating requirements for participation; and reporting amounts made available by city, State, or other desired recipient.

9. Library General Information System (LIBGIS) (Annual beginning in FY 73)

Development of a generalized, data-collection system for libraries of all types, using State agencies as collection agents.

A minimum of core items will be obtained each year of critical need to the OE program staff for libraries of all types (Academic, Public, School, Federal, State, Special) with selected special studies conducted periodically to respond to current problems.

10. Obtaining Census Data for School Districts (Phase I: Mapping)

A study providing reliable statistics which will enable the Federal government and State governments to make decisions for better utilization of educational funds and resources. The Census data will provide an excellent description of the community from which the school system draws its pupils with information about, for example, family income, drop-out statistics, educational level, housing characteristics, racial distribution, and other socioeconomic characteristics.

11. Vocational Education Program Directory (Biennial)

Preparing a directory in FY 71 of vocational education programs by type and level of program, by State, district, and school. It is planned to prepare this directory from existing NCES records. Should the effort be unsuccessful, it may give rise to a survey in a later year.

12. Environmental/Ecological Education

A project designed to provide preliminary observations about the nature and status of environmental and ecological education (EEE), while developing and field testing sets of questions and indicators about EEE which may be included as part of NCES surveys in FY 72 and later.

Appendix E

MATERIALS RELATED TO THE CONFERENCE ON IMPROVING INFORMATION SYSTEMS FOR EDUCATIONAL POLICY MAKING

1. Conference participants

2. Agenda

3. "Information Systems for Educational Policy Making: Micro-Economics of Elementary and Secondary Education" by Professor Jesse Burkhead, Maxwell Graduate School, Syracuse University

A Conference on

IMPROVING INFORMATION SYSTEMS FOR EDUCATIONAL POLICY MAKING

A part of a project conducted for

The President's Commission on School Finance

by the

Policy Institute
of the Syracuse University Research Corporation

in cooperation with the

Maxwell Graduate School of Citizenship & Public Affairs of Syracuse University

at the

Lake Meadows Inn, Cazenovia, N.Y.
June 17th & 18th, 1971

LIST OF PARTICIPANTS

Policy Institute & Maxwell School

Ralph K. Andrew - Policy Institute Research Assistant
Stephen K. Bailey - Chairman, Policy Institute
Roy Bahl - Director, SURC Urban and Regional Research Center
Joel S. Berke - Director, Educational Finance and Governance Program
Jesse Burkhead - Professor of Economics, Maxwell School
Jerry Calderone - Policy Institute Research Assistant
Kathleen A. DiTullio - Policy Institute Administrative Assistant
Robert J. Goettel - Project Director
Barrie L. Goldstein - Policy Institute Research Assistant
Paul Irwin - Policy Institute Research Associate
Michael Marien - Research Associate, SURC Educational Policy Research Center
Jerry Miner - Professor of Economics, Maxwell School
Roger Parry - Research Assistant, School of Education
Seymour Sacks - Professor of Economics, Maxwell School
Ronald White - Policy Institute Research Assistant

President's Commission

Richard Barr - Research Associate
Norman Karsh - Staff Director
Sigmund Sklar - Research Director

Outside Consultants & Representatives

Sam Bliss - Director, Educational Resource Management Center, Northern Arizona University
Jean Flanigan - Assistant Director, Research Division, National Education Association
Edward Glassman - Educational Specialist, Office of Education
Carol Hobson - Chief, Elementary & Secondary Educational Surveys Branch, Office of Education
Eugene McLoone - Professor of Economics & Education, University of Maryland
John Polley - Assistant Commissioner for Educational Finance & Management Service, New York State Educational Department
John Stiglmeier - Director, Information Center for Education, New York State Education Department
Charles Sullivan - Measurement Research Corporation of Westinghouse Learning
John Wood - Office of Education

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AGENDA
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Thursday June 17

9:30 - 10:15 - *WELCOME*

Stephen K. Bailey, Chairman

INTRODUCTIONS

Joel S. Berke

PRESIDENT'S COMMISSION ON SCHOOL FINANCE

Norman Karsh

NATIONAL CENTER FOR EDUCATIONAL STATISTICS

Mrs. Carol J. Hobson

10:15 - 11:00 - *MEASURING FISCAL NEED, CAPACITY, AND EFFORT*

Robert J. Goettel

11:00 - 11:15 - Coffee

11:15 - 12:15 - *MEASURING EDUCATIONAL NEED*

Joel S. Berke

12:30 - 2:00 - Lunch

2:00 - 3:00 - *MEASURING CURRENT RESOURCES - EXPENDITURES & SERVICES*

Robert J. Goettel, Moderator
Eugene Mcloone

3:00 - 3:15 - Coffee

3:15 - 4:15 - *MEASURING FEDERAL AID FLOWS*

Joel S. Berke, Moderator
Seymour Sacks

4:30 - 5:30 - Cocktails

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AGENDA

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Friday June 18

9:30 - 11:00 - *MEASURING EDUCATIONAL IMPACT*

Robert J. Goettel, Moderator

Jesse Burkhead

11:00 - 11:15 - Coffee

11:15 - 12:15 - *EMERGING AREAS OF CONCERN*

Joel S. Berke, Moderator

Jerry Miner

12:30 - 2:00 - Lunch

2:00 - 4:00 - *WINDUP & SUMMARY*

Information Systems for Educational Policy Making:

Micro-Economics of Elementary and Secondary Education

Professor Jesse Burkhead
Maxwell School

I. General Background

Ten years ago Schultz, Becker and others were engaged in the "rediscovery of the human agent". This pioneering work, generally at the macro level, produced some interesting findings on the investment value of education, on the contribution of training and education to gross output (education in a macro production function), and introduced the concept of measuring educational outcomes in terms of an improvement in discounted lifetime earnings. This literature undoubtedly contributed to a generalized shift in public attitudes toward education. Our national Cold War response to Sputnick in 1957 was the National Defense Education Act of 1958; in the last decade, our response to all problems of unemployment, poverty, and racism has been: more resources must be devoted to education.

The concern with the macro aspects of investment in education spawned an equivalent concern with micro-economic aspects. Here the issue is simply: how can educational outputs be maximized from a given volume of resource inputs. This approach requires that the school be looked at as if it were a producing firm, engaged in economic optimizing in the same way that a business firm is engaged in optimizing net revenue.

The micro-economics of education, sometimes called systems analysis, and sometimes linked with program budgeting, and sometimes cast in terms of production functions or input-output relationships, has been pursued by such economists as Benson, Levin, Katzman, Ribich, Burkhead-Fox-Holland and others. (The Coleman Report is not irrelevant to this type of research). The results, to date, have been most disappointing.

In all the empirical work that has been done it has been discovered that out-of-school influences are far more important on educational outcomes than in-school influences. The socio-economic characteristics of the children count far more than anything that goes on in the classroom. To be sure, some teacher characteristics seem to be moderately significant (Benson, Levin, Burkhead-Fox-Holland). The verbal skills of the teacher carry over into the verbal skills of students; more experienced teachers produce better test scores than inexperienced teachers. But none of the empirical work has discovered that smaller class size (within the ranges investigated), newer buildings, increased expenditures on the library, or on equipment, or on auxiliary personnel have any important effect on school outputs, where such outputs are measured in terms of test scores, drop-outs or continuing education.

Nevertheless, there is on-going interest in approaching the micro-economics of education by way of program budgeting and there are knowledgeable authorities who feel that additional experience will yield a better understanding of resource allocation patterns within schools and among schools within a specific school system (J. Alan Thomas, The Productive School).

Finally, the background for an examination of the micro aspects of education must include reference to a growing feeling on the part of many contemporary critics that elementary and secondary schools, with few exceptions, are the very antithesis of education. Miner has put the point well:

> Policy toward education as an industry cannot ignore the role of the schools in fostering racism and stultifying intellectual and emotional growth. Without accepting in full the views of Kozol, Silberman, Kohl, Illich and others, those concerned with policy cannot look only at the resources needed to attain equality in the performance of schools or of pupils without regard to whether any of these performances are personally or socially destructive...If the production function in schools cannot be

altered to reduce their destructive effects to tolerable limits, greater emphasis on alternative educational instruments is called for.

II. The nature of the problem

One way in which the micro-economics of education may be conceptualized is to start with a recognition that there is a vector of inputs, a vector of activities within the school and a vector of outputs:

$$\begin{matrix} I_a \\ \vdots \\ I_z \end{matrix} \qquad \begin{matrix} A_a \\ \vdots \\ A_z \end{matrix} \qquad \begin{matrix} O_a \\ \vdots \\ O_z \end{matrix}$$

Each of these vectors presents formidable conceptual and measurement problems and there are complex inter-actions among the elements within and between vectors.

With no pretension at comprehensiveness, the following may be noted as some of the most difficult problems that are encountered:

1. The input vector must encompass all real resource costs, such as teachers, administrators, buildings and supplies. But the price of inputs, as with teachers, and their salaries, may not adequately reflect quality variations. Moreover, perhaps the most significant input to the education industry is student time, and how is this to be valued? Student inputs are also conditioned by home and neighborhood. How is this to be taken into account in the input vector? (Burkhead-Fox-Holland treated SES as a "status variable" and thus made it the first input into the "production function.")

2. The activity vector reflects the combinations of factors (student time, teacher time, equipment) that the school utilizes in order to conduct certain activities, such as specified numbers of arithmetic classes of specified size, and specified numbers of extra-curricular activities such as athletics, driver-education and the flag-salute.

Unfortunately, no elementary or high school principal has sufficient knowledge of marginal productivities to secure the least-cost combination of such factors.

3. The output vector presumably reflects the goals that the school has established for itself, or that society has imposed upon it. There are obviously multiple goals--no single output here--and therefore the economist traditionally proposes to cost out the goals and establish appropriate trade-offs among them. This could sweep all the important value judgments under the rug. Who is to decide, and on what basis, that it is more important to raise the eighth grade lower quartile reading scores than the eight grade upper quartile reading scores? Who shall decide that mentally retarded children shall have a class size that does not exceed four? Economists tiresomely warn that resources are limited, but there is no trade-off analysis that will eliminate the need for value judgments that must be made on non-economic grounds.

Thus the output vector, in systems approach, comes to rest heavily on that which can be quantified--test scores and drop-outs. No one has yet discovered how to measure the far more significant outputs of education (in-school and out-of-school) such as integrity, creativity, and a sensitivity to human relationships.

III. Data requirements for micro-economic analysis of elementary and secondary education.

In spite of the many formidable conceptual problems, and the listing in II is by no means complete, it may still, quite possibly, be desirable for USOE or state departments of education to encourage additional systems analysis linked with the budget. This must be established and administered at the school district level, and disag-

gregated at least to the level of each individual school. Organizationally, there must be a central school district budget and evaluation staff that prepares the manual, defines the inputs, activities and outputs, and enlists the cooperation of school principals and teachers. The minimum data requirements are as follows:

1. Inputs
   - 01. Instructional costs (with teacher characteristics)
   - 02. Administrative costs
   - 03. Auxiliary personnel costs (guidance, librarians, etc.)
   - 04. Materials and supplies
   - 05. Buildings and grounds.
   - 06. SES of pupils (possibly obtainable by annual questionnaires on housing conditions or occupation of parents).
2. Activities
   - 01. Class size, to whatever degree of disaggregation seems appropriate.
   - 02. Extra-curricular activities
   - 03. Staff relationships (perhaps an index of staff participation, or an evaluation of the effectiveness of the principal)
3. Outputs
   - 01. Test scores (verbal, quantitative)
   - 02. Dropouts
   - 03. Continuing education
   - 04. Socialization (an index of vandalism)?

It may be noted that test scores should be derived from the same test administered at successive grade levels, so that "value-added" can be estimated. This will require a different testing procedure than that now commonly employ in elementary and secondary education, where

tests are used primarily for tracking and guidance counseling.

IV. Possible outcomes

1. If employed over a period of years, the foregoing type of systems analysis might contribute to better judgments about costs and effectiveness of specific programs and thus serve up some numbers that would be helpful in educational policy making. At minimum, it would provide information on the costs of innovations. It should be noted, however, that where the SES characteristics of a school are changing rapidly, over-time analysis is virtually impossible. It may also be impossible in depressed areas where teacher turnover is (numerically) 100 percent of ADA, or where teacher turnover is as high as 25 percent during a given school year. It may also be impossible in schools that are undergoing major organizational transitions in terms of community participation and control.

2. In relatively stable situations, systems may also contribute insights on proper factor combinations -- better information than we now have on class size consequences, on the utilization of teacher aids, or on the utilization of auxiliary personnel.

These are modest outcomes, but may nevertheless be worth pursuing. Unfortunately, there are far too many gaps in our existing knowledge to be confident that systems analysis can make a major contribution. The biggest gap of all is the absence of a defined relationship between what is measurable and what is known about learning theory. There is no reason to suppose that learning is a linear function. Indeed, there is every reason to suppose that there are abundant thresholds and discontinuities. What is the importance of pre-school, Headstart type programs? Are there crucial years in the acquisition of reading skills, such as the first grade or the fourth

grade? Educational psychologists have not yet provided any answers and perhaps none are forthcoming. But until systems analysis is linked with learning theory it will always hang at least partially in mid-air.

It is also possible that the "system" of education in any society is a seamless web that defies analytic treatment. Schools are established to "educate" the work force in the skills that the economy requires. Students are tested and credentialled in terms of these skills. In-school and out-of-school influences cannot be separated. We get what we deserve and the "efficient" use of educational resources may be a subsidiary concern in a society as wasteful as ours.

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