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No. 76 PUBLIC DATA RESOURCES FOR EDUCATIONAL POLICY ANALYSIS AND EVALUATION

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Research on Evaluation Program

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PREFACE

The Research on Evaluation Program is a Northwest Regional Educational Laboratory project of research, development, testing, and training designed to create new evaluation methodologies for use in education. This document is one of a series of papers and reports produced by program staff, visiting scholars, adjunct scholars, and project collaborators—all members of a cooperative network of colleagues working on the development of new methodologies.

Does every major policy or evaluation question require the collection of original data? Are there existing resources that policy analysts and evaluators could consult in reference to their questions? This annotated summary identifies 65 public data resources that provide current as well as historical information pertinent to a variety of educational policy issues. The use of these resources will enable investigators to address many educational issues within a short time and without costly original data collection.

Nick L. Smith, Editor
Paper and Report Series
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Introduction to the Collection

Whenever an important educational issue arises, many administrators, policy analysts, and evaluators assume that the collection of original data will be required in order to address the issue. Perhaps this inclination has been fostered by the inquiry attitudes of educational researchers who have only just recently discovered the benefits of meta-analysis and secondary data analysis. Regardless of the source, there is a general inclination to collect new data each time an important issue is considered. While not universal, this inclination is clearly the dominant approach of many evaluators and analysts leading to the attitude among some of them that, "I can't address your question unless you give me money to collect the data."

There are alternatives to original data collection. In fact, there is a large storehouse of available information that can be used to address educational issues of a local, as well as state and national, interest. Of course, not all questions can be answered through reference to these sources, but they provide an efficient and inexpensive starting point, offer partial and sometimes complete answers to the questions at hand, and can be used to improve the precision of additional data collection efforts should those be required.

This report contains an annotated description of public data resources useful to administrators, policy analysts, and evaluators in forming and addressing educational issues. These resources are useful for addressing such questions as:

- Is adult education increasing in importance?
- Has attendance in public schools increased as a result of compulsory education laws?
Do women and minorities now have greater access to post-secondary education than before?

Has public support of education increased dramatically over the past century?

These resources are especially useful in addressing questions which require historical information. Answers to such questions do not readily jump to the fore upon reference to the proper data source, however. What is usually required is the tracking down of relevant information through multiple references to the resources identified here. Historical changes in reporting categories, definitions, and data collection procedures also require that one carefully study these sources and thoughtfully interpret the information contained in them. With some diligence, however, one can arrive at answers to questions such as those listed above or to slightly reformulated versions of them.

Each entry in the following compilation is organized according to a common format:

- Title
- Full bibliographic reference (for a given volume if the publication is a serial)
- Basic contents and organization (including dates of coverage if a serial)
- Special features (if appropriate)

You will note that many of the sources are produced by the National Center for Education Statistics (NCES) which was originally under the direction of the U.S. Office of Education. The Office of Education began collecting periodic statistical information on elementary and secondary schools with the 1869-70 school year. From 1869-70 through 1915-16 the data were included as part of the U.S. Commissioner of Education's annual reports. For 1917-18 through 1957-58 they were included in the Biennial Survey of Education for each school year ending in an even number. Since 1957-58, the reports have been issued as independent publications.
Other data pertinent to education come from the decennial census which has included data on school enrollment since 1840 and on educational attainment since 1940. Additional educational data come from the Current Population Survey (also conducted by the Bureau of Census) which has reported on school enrollment annually since 1945 and on educational achievement and illiteracy periodically since 1947. Every five years (for the years ending in "2" and "7") the Bureau of the Census also conducts the census of governments which provides data on school district finances and state and local government expenditures for education.

In addition to the NCES and Bureau of the Census studies, data are provided in publications of the National Education Association and in annual or biennial reports of education agencies in the individual states. Data relating educational attainment to employment experience are published by the Bureau of Labor Statistics and data on vocational training are available in Vocational and Technical Education, which through 1978 was issued annually by the U.S. Office of Education.

Most of the sources which follow can be obtained directly from the publishers or simply consulted in university or large public libraries. Some familiarity with the sources are required before one can easily turn to the needed information, but after a few trials they become as easy to use as an atlas or an encyclopedia.

I have provided annotations of the primary data sources to aid in the initial selection of the appropriate reports.

There are, of course, many other data sources to be considered. One should keep in mind the complete publication lists of such bodies as the Bureau of the Census, the National Education Association of America, the National Center for Education Statistics, the National Assessment of Educational Progress, the National Science Foundation—Education Directorate, and the International Evaluation Association. Also, original data will sometimes also be found in state board of education records, federal and state governmental documents, and for more
restricted questions, educational dissertations conducted within the geographic region of interest. It should also be remembered that people constitute a public data source and that a quick interview of fifteen qualified individuals might provide all the information needed to address a particular question.

While this compilation contains a listing of major statistical documents related to education, it does not include computerized data bases which contain similar information. Such data bases are sometimes made publicly available by universities, the public agencies identified in this collection, and private individuals and firms such as testing corporations. Also not mentioned here are computerized statistical services such as the school district comparisons provided upon request by the Educational Research Service.

A few cautions should be kept in mind when using data from the references cited here. One should study the source of the data in each table and how they were collected in order to assess their quality and relevance to the question at hand. Data may not be comparable across tables or references due to differences in collection or analysis procedures, and the meaning of terms (such as "literacy") may vary across sources. In some cases, the questions which the data address may not be the exact questions of interest, and one should be sensitive to subtle changes in the nature of the questions as the investigation proceeds. Further, special problems arise in using these data to do meta-analyses and secondary data analyses, and appropriate technical discussions of these methods should be consulted before proceeding. However, the thoughtful use of the data sources listed in this report should assist administrators, policy analysts, and evaluators in efficiently addressing questions of interest as well as provide them an empirical, historical base for their work. By using these existing sources, less original data collection will be necessary—an important consideration in this period of declining resources.
Primary Sources

1. Statistical Abstract of the United States


- Published since 1878, the *Statistical Abstract of the United States* is the standard summary of statistics on the social, political, and economic organization of the United States. It is designed to serve as a convenient volume for statistical reference and as a guide to other statistical publications and sources (p. v). Major sections include (in the 1980 edition): (1) population; (2) vital statistics; (c) immigration and naturalization; (4) health and nutrition; (5) education; (6) law enforcement, federal courts, and prisons; (7) geography and environment; (8) public lands, parks, recreation and travel; (9) federal government finances and employment; (10) state and local government finances and employment; (11) social insurance and welfare service; (12) national defense and veterans affairs; (13) labor force, employment and earnings; (14) income, expenditures and wealth; (15) prices; (16) elections; (17) banking finance and insurance; (18) business enterprise; (19) communications; (20) energy; (21) science; (22) transportation—land; (25) transportation—air and water; (24) agriculture; (25) forests and forest products; (26) fisheries; (27) mining and mineral products; (28) construction and housing, e.g. manufacturers; (30) domestic trade and services; (31) foreign commerce and aid; (32) outlying areas under the jurisdiction of the United States; (33) comparative international statistics; (34) supplement to the energy section.

The education section (1980 edition) includes information on such topics as school enrollment, finance, attendance, scholastic attainment, transportation, and staff characteristics for public, private, elementary, secondary,
higher, and vocational education. The section includes approximately 83 tables covering 41 pages.

- The Statistical Abstract is also a useful guide to other data sources. The introductory text of each section points to other data sources and the source of data in each table is noted with the table. In addition, Appendix-IV (1980 edition) contains a 44-page guide to other sources of statistics, including 68 entries under the topic of education alone.
Published annually since 1962, the primary purpose of the Digest is "... to provide an abstract of statistical information covering the broad field of American education from prekindergarten through graduate school." (p. iii) Information on such topics as educational enrollment, finance, achievement and staffing appear in 197 tables (in the 1977-78 edition) across the six chapters: "All levels of Education," "Elementary and Secondary Education," "College and University Education," "Adult and Vocational Education," "Federal Programs for Education and Related Activities," and "Special Studies and Statistics Related to American Education." Information is also provided on topics such as international education, employment, libraries, research and development, student aid, and property. Data are also included from such testing programs as the Scholastic Aptitude Test and the National Assessment of Educational Progress. Some of the information in the Digest is for recent years only, in other cases data as far back as 1870 has been included to provide historical perspective.

The Digest is the primary source of information on federal funds for education and the data in each chapter are supplemented by a brief narrative describing current trends in American education. The 1977-78 edition, for example, contains a 7-page summary of major federal educational legislation from 1787 to 1977.
The Condition of Education


- Published annually since 1974, The Condition of Education is an "... annual statistical report describing conditions in education as well as those in the larger society that affect education." (p. iii) The issues presented in each volume (primarily through statistical displays) differ from edition to edition. The 1980 edition includes an index to topics and data contained in the previous three editions. The first three chapters of the 1980 edition address the general context of education and factors in American society affecting education at the elementary, secondary, and higher levels. The final four chapters provide information on the selected issues: higher education finance, preprimary education, adult and occupational education, and the resource disparity in elementary/secondary education. Data on such topics as student characteristics and competencies, enrollment, teacher characteristics, revenue, and occupational education are presented in 122 tables.
Published annually since 1965, this publication provides projections of statistics on enrollment, graduates, teachers, and expenditures for elementary and secondary schools and institutions of higher education. The projections are revised yearly based on new data collected by the Bureau of the Census and the National Center for Educational Statistics. In the 1978 edition, information from 1966-67 to 1976-77 was used to project to the period 1977-78 to 1986-87. The 1978 edition contains 13 figures and 36 tables on such topics as expected enrollment, earned degrees, demand and supply of instructional staff, and anticipated expenditures. Sources of the information used in the projections are also provided.

The report provides detailed information on the methodology used to make the projections, both within the body of the report and in a 20-page appendix.
The U.S. Census Bureau provides an enormous amount of data on population, housing, agriculture, construction, education, industry, and transportation. The 1970 Census User's Guide contains general information on the decennial census (first conducted in 1790). Part 1 is relevant to all census data products, while Part 2 deals exclusively with data on computer tape. A variety of bound census information is provided, such as the series of volumes on population characteristics by state, and the census tract records on population and housing for each of the 241 standard metropolitan statistical areas in the U.S.

Prior to 1970, special reports on such topics as housing, industry, etc. were issued as part of the census. Since 1970 a series of special reports have been published as additions to the census. Nine series of such reports were released in the 1970s:

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Special reports of interest in education include those on school enrollment and educational attainment:


The U.S. Census also produces a series of Current Population Reports including such titles as:

Compendium of HEW Evaluation Studies


The purpose of the Compendium is to provide, in one volume, descriptions of the evaluations conducted on projects of the Department of Health, Education, and Welfare (HEW) over the past several years. Descriptions of 1386 evaluations of projects in over 35 federal agencies (such as the National Institutes of Education, Drug Abuse, Mental Health, Aging, Dental Research, etc.) are provided, each entry containing such information as the project sponsor, project title, evaluation contractor, type of evaluation, funding level, and dates of the project. Although the abstract describing the evaluation procedures and results is often too brief to be very useful, information is provided on how to obtain copies of the evaluation documents. Subject, sponsor, and program name indices are provided to assist in locating desired evaluations.
Federal Program Evaluations


- The General Accounting Office produces this directory (the 1978 publication is the second edition, a third edition may now be available) of evaluation studies supported by federal agencies. The FY78 edition contains reports of evaluations for the period July 1, 1975 through June 30, 1977 and contains 300 HEW evaluation studies.
The Policy Analysis Source Book for Social Programs


- This Source Book contains an annotated bibliography of approximately 4,000 abstracts of policy analyses and evaluations of federal health, housing, energy, education, and welfare programs. It is reported to be the only collection of studies selected on the basis of quality and usefulness and covers evaluations funded by both private and government sources. The Source Book is extensively indexed.
Annual Evaluation Report on Programs Administered by the U.S. Office of Education


- Published annually since 1970, the Annual Evaluation Report reviews programs administered by the Office of Education (OE) and provides for nearly all of them the following information: a funding history, a description of program goals and operations, a report on program effectiveness and progress, and a listing of ongoing and planned evaluation studies. This 684-page document (the 1979 edition) contains a description of the OE evaluation strategy and the highlights of studies completed in the past year. The bulk of the report contains descriptions of the evaluation of 17 elementary and secondary programs (such as Emergency School Aid Act, Bilingual Education, Follow Through, etc.), 31 post-secondary education programs, 13 handicapped programs, 8 occupational programs, and 22 developmental programs (Teacher Corps, Metric Education, etc.).
As one of a series of publications (the 1976 edition is the sixth in the series), this report "was developed because reliable data were needed on individual local public school systems for planning, policy, and research purposes." (p. iii) The data for the 1972-73 period, presented in the 59 tables (in the 1976 edition) were developed from national estimates and a survey of 933 school districts. The report provides information on school revenues and expenditures in a variety of categories such as allocable to pupil costs and capital outlay, and expended by the local school system or other agencies. The information is broken down by enrollment size, geographic region, and metropolitan status.
Statistics of State School Systems


This report, one of a series of such reports, presents data on public elementary and secondary schools primarily for the period 1973-74, although approximately one-fifth of the 64 tables contain information from earlier years for comparison purposes. A 20-page narrative, supplemented by tables, presents an overview of such topics as the administrative organization of education, staff and student characteristics, including enrollments, and information on school transportation, lunch programs, sources of income and revenue. The 52 basic data tables supplementing the narrative provide detailed information reported state by state.
12 Standard Education Almanac


- The 1980-81 edition of the Standard Education Almanac is the thirteenth in a series of annual volumes designed

  (1) to provide important, current, comprehensive data about education from a multiplicity of sources in a single volume, (2) to refer the reader to additional sources of information about the various subjects included in the present volume, and (3) to present significant analytical and/or expert opinion on selected educational topics. (Introduction)

  In addition to 72 articles on major topics under the areas of elementary/secondary education, higher education, adult and continuing education, and issues in education (many containing detailed statistical data), the volume contains 34 additional major chapters of related statistics and sources of additional information.
Historical Statistics of the United States


Historical Statistics contains data from colonial times to a given year. This first edition, issued in 1949, covered the period from 1789 to 1945, the second edition, issued in 1960, covered colonial times to 1957, and the third edition, issued in 1975, covers colonial times to 1970. The two parts of the 1975 edition (1,200 pages) include data under 24 major categories: (1) population, (2) vital statistics and health and medical care, (3) migration, (4) labor, (5) prices and price indexes, (6) national income and wealth, (7) consumer income and expenditures, (8) social statistics, (9) land, water, and climate, (10) agriculture, (11) forestry and fisheries, (12) minerals, (13) construction and housing, (14) manufacturers, (15) transportation, (16) communications, (17) energy, (18) distribution and services, (19) international transactions and foreign commerce, (20) business enterprise, (21) productivity and technological development, (22) financial markets and institutions, (23) government, (24) colonial and pre-federal statistics.

The section on education, listed under social statistics, includes 29 tables on such topics as enrollment, revenue, expenditures, staff, transportation, achievement and literacy for both elementary/secondary and higher education.

Provided for each major topic and subtopic area is a narrative description of the sources of the reported data, problems with the data, and other information useful in interpreting the data.
14 Biennial Survey of Education


- From 1917-18 through 1957-58, the educational statistics collected by the Office of Education were included in the *Biennial Survey*. Early editions of the *Biennial Survey* consist mainly of narrative reports on various aspects of education. Here statistics were presented in the context of supporting points made in the body of the report. Over the years, the presentation of narrative comments were limited to the introduction of each section. The topics covered in each biennial survey varies, to some extent, from survey to survey. There has, however, been some consistency in the early chapters. The first chapter usually presents a statistical summary of education. The second chapter contains the statistics concerning state school systems." (Green, et al. *The Institutions and Processes of Education: A Data Book*, p. 480)
From 1867 through 1916 the educational data collected by the Office of Education were contained in the annual report of the U.S. Commissioner of Education. These reports contain both narrative and statistical descriptions of education in the United States and in the later reports, contain narrative discussion. "It begins with a general survey of education followed by discussions of educational legislation, education in larger cities, education in smaller cities; education in rural areas; elementary, secondary, and higher education; vocational education; education in the professions; education at home; education of immigrants; education in other countries; and more. The second part (or volume) also contains some narrative, but concentrates on the presentation of data. It is in this section that extensive data in support of, or in contradiction to, earlier reports can be found." (Green, et al. The Institutions and Processes of Education: A Data Book, pp. 480-481)
Other Sources

Other major sources of information related to education include the following:


#18 Bureau of Indian Affairs. *Statistics Concerning Indian Education.* Annual.


#21 Department of Education. *Annual Report.*


#26 National Center for Education Statistics. *Associate Degrees and Other Formal Awards Below the Baccalaureate.* Annual.


#31 National Center for Education Statistics. *Fall Enrollment in Higher Education.* Annual.


#35 National Center for Education Statistics. Reports issued from High School and Beyond, a National Longitudinal Study for the 1980s. See especially, Information for Users, Base Year 1980 Data.


#43 National Science Foundation. Academic Science: Graduate Enrollment. Annual.

#44 National Science Foundation. Academic Science: R&D Funds. Annual.


#46 National Science Foundation. Graduate Science Education: Student Support and Postdoctorals. Annual.
| #49 | National Science Foundation. Decline in Recent Science and Engineering Doctoral Faculty Continues Into 1978. (NSF 79-301). |
| #50 | National Science Foundation. Hiring of Science and Engineering Faculty by 2- and 4-Year Colleges. (NSF 78-309). |
| #51 | National Science Foundation. Stock of Science and Engineering Master's Degree-Holders in the United States. |
| #53 | Office for Civil Rights. Directory of Public Elementary and Secondary Schools in Selected Districts--Enrollment and Staff by Racial-Ethnic Group. (Fall 1972, most recent.) |


Footnote

1 This collection draws heavily, in both conception and organization, on Appendix C of The Institutions and Processes of Education: A Data Book (Thomas F. Green, et al., Syracuse, New York: School of Education, Syracuse University, 1981). I wish to express my appreciation to Dr. Green and the members of the faculty and staff of the Cultural Foundations department for affording me the opportunity to produce this compilation while I was in residence at Syracuse University.