A New Age for Research in Rural Education?

Howley, Craig; Stern, Joyce

Appalachia Educational Lab., Charleston, W. Va.

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The National Center for Education Statistics (NCES) new classification system for location of public schools and the NCES databases will provide new opportunities for rural education researchers. NCES developed a coding system called "Johnson codes" based on zip codes and Census definitions both of rural and nonrural places and of metropolitan and nonmetropolitan counties. The system locates all public schools on a continuum of seven "types of locale" from the most extreme rural location to the most concentrated urban location. In an effort to improve use of and access to its databases, NCES is gathering new data, producing new products, providing technical assistance, and conducting training activities. NCES produces public-use files and restricted-use files. In the past, mainframe computer tapes constituted the principal format for the NCES databases. Now, NCES has begun to make data available in CD-ROM format. The National Data Resource Center, operated by NCES, is a source of free technical assistance for the educational research community. NCES envisions a substantial effort to train those interested in accessing and using its data and new products through training seminars and possibly a national conference. This article describes the following NCES statistical databases in terms of type, scope, format, kinds of data, and contacts for information: (1) Common Core of Data; (2) School District Databook; (3) National Educational Longitudinal Survey of 1988; and (4) Schools and Staffing Survey (SASS) and SASS Teacher Followup Survey. (KS)
Investment in educational research, we all know, is quite meagre. This observation is true in general, but the academic world—and most sources of funding—have long ignored rural education research. Two years ago, however, the U. S. Office of Education’s Office of Educational Research and Improvement (OERI) disseminated a federally endorsed brochure titled “An Agenda for Research and Development in Rural Education” to a wide audience.

The agenda was the product of several years’ work by interested parties from a number of federal agencies, professional associations, and academic institutions. No funds were appropriated to support implementation of the agenda, but the development and dissemination of the agenda did constitute evidence of increased concern for rural education research.

In addition to general lack of interest and meager funding, however, rural researchers have also bemoaned the lack of a consistent definition of “rural” on which to base consistent research efforts. Many data sources defined the term imprecisely (or failed completely to specify community type). On the other hand, sundry federal and state programs have employed a wide range of overlapping or contradictory definitions.

The issue of definition, however, began to be addressed at the federal level in 1989, when the National Center for Education Statistics (NCES) developed a very refined coding system to classify the location of all public schools in the nation. The “Johnson codes” are based on zip codes and use Census definitions both of rural and nonrural places and metropolitan and nonmetropolitan counties to locate all schools on a continuum of seven “types of locale”—from the most extreme rural location to the most concentrated urban location. For the first time ever, the number of students in rural areas and small towns (and in all other types of locale) could be determined nationwide (and in every state and county) using a consistent definition.

This year, NCES undertook the considerable task of merging these locale statistics (supplied in the NCES database known as the Common Core of Data, or CCD) with information from the 1990 Census. In planning for this work, NCES invited the OERI rural coordinator (Stern) and the rural coordinators of the Regional Educational Laboratories to help address the definitional issue. The specific outcome of that collaboration will be described in a later issue of this newsletter. Here, however, it is sufficient to note that by incorporating such outcomes into their planning, NCES began to pay more focused attention to the concerns of rural education researchers. Such involvement with constituents has been taking place for the last decade, as NCES transforms itself into a first-class statistical agency.

The government has invested millions of dollars in designing and conducting new surveys and creating national databases to provide information about a host of educational issues. Like many other constituents (e.g., early childhood and minority education researchers), those concerned with rural education stand to benefit substantially from the information collected by NCES. But first they have to know it exists. Hence, as its investment in producing rich databases matures, NCES is launching major efforts to improve use of and access to its databases. Strategies include gathering new data, producing new products, providing technical assistance, and conducting training activities.

Data Availability

NCES uses its databases not only to publish statistical reports (e.g., the Digest of Education Statistics and approximately 100 annual reports on specific topics), but has, for many years, marketed its data tapes to researchers who want to conduct original analyses. The database for the longitudinal High School and Beyond, for example, has been used in important studies of rural education in recent years by Walter McIntire, David Monk, Emil Haller, the Population Reference Bureau, the Aspen Institute,
and many other individuals and organizations.

NCES produces two types of files for its databases: public-use files and restricted-use files. To access the restricted-use files, researchers complete an NCES license and pledge to protect the confidentiality of the data (which include variables that could be misused to compromise subjects' privacy).

**New Products**

In the past, mainframe computer tapes constituted the principal format for the NCES databases. Now, NCES has begun to make data available in CD-ROM (Compact-Disc, Read-Only-Memory) formats. The discs contain electronic codebooks and software that permit researchers to extract variables of interest in their work. The CD-ROM format is not only much easier to use than mainframe tapes, but they are also much cheaper—about $25 for each disc, as compared to $175 for each tape.

Some databases are already available in CD-ROM format. NCES contacts for each of these are:

- Common Core of Data (CCD)—Jerry Malitz (202/219-1364)
- High School and Beyond (HS&B)—Dennis Carroll (202/219-1774)
- 1987-88 Schools and Staffing Survey (SASS)—Alan Moorhead (202/219-1920)
- 1990 National Assessment of Educational Progress (NAEP) available for restricted use—Alan Moorhead (202/219-1920)

The merge of data from the CCD with Census data, called the School District Databook, will also appear in CD-ROM format and will be available by late spring, 1993.

The **OERI Bulletin** keeps readers apprised of developments at NCES. The NCES publication, *Programs and Plans of the National Center for Education Statistics*, systematically describes NCES surveys, databases, and services in some detail. This publication appears annually. The NCES Education Information Branch (1-800/424-1616) can provide a copy; the 1991 edition is also available on ERIC microfiche at most academic libraries (ERIC Document Reproduction Service No. ED 339 739).

**Technical Assistance**

The National Data Resource Center (NDRC), operated by NCES, is a new and, as yet, too seldom appreciated source of free technical assistance for the educational research community. The NDRC will provide information about or data from its resources at no charge to clients. With copies of the survey questionnaires and users' manuals in hand, a researcher without the resources to run the tapes or CD-ROMs can, for instance, ask the NDRC staff to help design summary data tables or determine sets of variables to be extracted for a research project. NDRC staff will run simple statistical analyses or extract (e.g., on floppy disks) variables of interest to the researcher. NDRC staff will also help researchers who visit NCES conduct analyses on-site. Assistance with all NCES databases—including each of those discussed in the newsletter issue—is available from NDRC staff. Contact Jerry Malitz (202/219-1364; FAX: 202/219-1751) for more information.

**Training**

NCES envisions a substantial effort to train those interested in accessing and using its data and new products. In September, OERI sponsored a hands-on training seminar for representatives from the Regional Educational Laboratories and the National R&D Centers, but NCES is also making plans for a long-term effort to train researchers with particular interests. The good news is that the first such sessions will focus on rural researchers. Jointly sponsored by OERI and the Laboratories, planning is underway to hold two training seminars late this summer, one at the Appalachia Educational Laboratory in Charleston, West Virginia, and one at the Northwest Regional Educational Laboratory, in Portland, Oregon.

Outreach for these limited-attendance sessions will come from all 10 Regional Laboratories. A national conference on the enhanced capability for rural research that NCES data allow is also under consideration. Information about all these plans will come from the Laboratories, this newsletter, the National Rural Education Association, and OERI.
Statistical Databases

Common Core of Data (CCD)

Type: universe census (annual)

Scope: All public schools, school districts, and state education agencies

Format: (1) CD-ROM (with searching, output, and table generation software included)
(2) Mainframe tapes

Illustrative kinds of data:
Schools—name of school, address, phone number, highest grade, lowest grade, operating status (e.g., operating, closed since last report, opened since last report), type (e.g., regular, vocational, special education, alternative), enrollment (by grade, by major ethnic group, total), type of locale (by the seven "Johnson codes"), free or reduced lunch count, teacher FTE.

Districts—name of district, address, phone number, agency type (e.g., regular, local component of supervisory union, state-operated, federally-operated), metro status, enrollment, high school completers, total number of teachers, fiscal data (for 1989-1990 only), from Census finance file relevant to elementary and secondary education).

State Education Agencies—name, address, phone number, staffing information (e.g., FTEs for instructional staff, guidance counselors, librarians, administrators), enrollment by grade, high school completers, state fiscal data (fiscal years 1987-1990 only).

For more information: Call—John Sietsema, NCES, 202/219-1335 (general information); Jerry Malitz, NCES, 202/219-1364 (CD-ROM version); or Thaddous Chmura, NCES, 202/219-1619 (Mainframe tapes)

School District Databook

Type: universe census (first implementation, forthcoming spring 1993)

Scope: All public school districts (data aggregated to district level)

Format: CD-ROM (CD includes menu-driven software for tabular display and output and for export of data)

Illustrative kinds of data:
Data from CCD—name, address, enrollment (by grade and ethnicity), type of locale, fiscal data (e.g., local taxes, federal and state revenue, capital outlay)

Data from 1990 decennial census—household type (e.g., married couple, single-parent); presence and age of children in home; language spoken in home; rural/urban residence; workers in family; poverty status; educational attainment; employment status of parents; and much more

For more information: Call—Ted Drews, NCES, 202/219-1731

Notes: This product will provide the most detailed look at public school districts yet possible. Again, the unit of analysis in all cases is the district, with individual or household census data aggregated to that level. The nine CD-ROM volumes will be comparatively inexpensive. The menu-driven software will produce custom tables for printing or export to wordprocessing programs. The on-disk software will also allow users to select and export subsets of variables of interest to them, for subsequent statistical analysis or manipulation in their favorite database management or statistical analysis programs. Finally, the product will be compatible with (geographic) mapping software (separately available from private vendors).

National Educational Longitudinal Survey of 1988 (NELS:88)

Type: longitudinal sample survey

Scope: 1988 eighth grade public and private school students, their parents, their teachers, and principals of their schools base-year (1988) data and first
followup student data available now; second (1992) followup data to be released soon

Sample Design: two-stage probability sampling of students within schools, with oversampling of Hispanic- and Asian-American students

Format: (1) four mainframe tapes
(2) CD-ROM release forthcoming

Illustrative kinds of data: family and personal background items; values and interactions with parents; educational and occupational goals; perceptions about self and school; self-reported grades; four cognitive tests; parent reports (various items); school characteristics (including rural/urban location, school climate, teaching staff characteristics—as reported by principal); perceptions of student (e.g., behavior, performance, attitudes) and teacher qualifications and background—as reported by students' teachers.

For more information: Call—Jeffrey Owings, NCES, 202/219-1777

Notes: NELS:88 contains well over 1,200 variables for the base year and first followup combined. The sheer number and detail of variables—as in most NCES longitudinal and cross-sectional surveys—allows researchers to construct their own composite variables, as the needs of their research questions may suggest. But the existing variables also include composites constructed by NCES, for example, for cognitive and affective measures and for socioeconomic status.

Schools and Staffing Survey (SASS) and SASS Teacher Followup Survey (TFS)

Type: cross-sectional sample survey (with one-year followup of teachers)

Scope: public and private elementary and secondary schools teachers, principals, and schools; public school districts; conducted every three years

Sample Design: public and private schools, teachers, and principals associated with the sample schools; school districts associated with the sample public schools

oversampling of bilingual and ESL teachers, Asian and Pacific Islander teachers, Indian teachers, Bureau of Indian Affairs (BIA) schools, schools serving large numbers of American Indian and Alaskan Native students

stratification by state for public schools and by association for private schools

followup subsample of teachers who continued teaching or who left the profession (TFS)

Format: (1) CD-ROM (does not include followup)
(2) mainframe tapes

Illustrative kinds of data:

SASS: sex, age, race, and ethnicity of teachers and principals; FTE teacher counts (e.g., by certification status, by vacancies and substitutes, by new or continuing status); teacher additions or separations; teacher and principal salaries and benefits; school characteristics (e.g., enrollment, student and teacher race and ethnicity, rural/urban location, free and reduced lunch count, enrollments by grade); staffing counts by type (e.g., counselor, principal, classroom teacher); teacher income; teachers' school-related opinions and attitudes; principals' perception of school climate

TFS: current status (same school, different school, left teaching altogether); changes in assignment; new degrees by field; reasons for taking employment in different school; reasons for leaving teaching; plans to return to teaching; comparison of teaching to other professions; current earnings and income

For more information: Call—Sharon Bobbitt, NCES, 202/219-1461

Craig Howley is Co-director of the ERIC Clearinghouse on Rural Education and Small Schools.

Joyce Stern is Rural Coordinator of the US Department of Education's Office of Educational Research and Improvement.