

IMPLICATIONS FROM UCEA

ACCESSING AND USING PUBLIC EDUCATIONAL DATA SOURCES FOR SCHOOL AND LEADERSHIP RESEARCH



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Much educational policy research can be conducted with existing data sources, either created for research purposes or for managing and maintaining information on public schooling systems. These often under-used resources offer rich research opportunities on the relationship between teacher and principal careers, school and district differences and student outcome changes over time.

Individual and Institutional Data

At the federal level, the National Center for Education Statistics (www.nces.ed.gov) serves as a repository for K-12 and postsecondary education data across all states. State departments of education compile comparably rich repositories of information on public schools, school districts, teachers and children within their boundaries.

Both NCES and state departments of education maintain *Individual Level* data and *Institutional Level* data. Individual level data tracks individual students or teachers and institutional data tracks schools or school districts. NCES provides universe data on K-12 (Common Core of Data) and postsecondary institutions (Integrated Postsecondary Education Data System). NCES provides annually updated information on enrollments, demographics and staffing data on all public elementary and secondary schools and districts plus financial data on school districts nationally. These data are readily available and in easily useable formats from 1986 to 2006.

Similarly, NCES provides data on higher education institutions, programs, enrollments, degree production and finances, annually updated. Baker, Orr and

Young (2007) recently used the Integrated Postsecondary Education Data System (IPEDS) to evaluate changes in degree production in educational administration over the past 10 years..

Federal source individual level data are typically contained in special surveys conducted by NCES, and the data obtained from those surveys are then available for use, by special license.

State Administrative Data

State administrative data sources, less widely used, are a potentially rich resource for policy research in education, as states are the primary locus of control of public school governance and finance. Scholars have recently become interested in exploring the potential of using state longitudinal data systems to track career patterns of teachers and school administrators and school effects. State data on teachers and principals differ from national surveys of teachers and administrators (most notably, the NCES Schools and Staffing Survey) in that (a) the best state data systems allow longitudinal tracking of individual teachers by school and district and (b) state data systems include a universe of teachers and certified administrators, rather than a sample. This yields larger, more statistically valid and reliable samples. Research using state administrative data from Wisconsin, Minnesota, Missouri and Iowa yielded pools of 600 to 1,000 elementary principals from each state, whereas the NCES survey data included 100 or fewer in each case (Baker & Punswick, 2008). Through state data, we can track principals from year to year to evaluate retention and turnover trends, which is not feasible with NCES data.

Administrative data as the primary source

In many cases, state administrative data alone can provide sufficient information for conducting research. For example, Fuller and Orr (2006) explored the career paths of Texas elementary principals, while Papa (2004) tracked New York principals. Both studies found that fewer than half of school principals stay in their current positions for more than 5 years. These findings were generated by simply tracking cohorts of existing principals over time, using their matched IDs in state data systems.

Similarly these data may be combined with state data sources on school performance data to explore the relationship between teacher and principal career patterns (particularly retention and turnover) and changes in student achievement and other student outcomes. These data can also be combined with school and district characteristics to identify demographic and economic differences.

Types of state administrative data

Each state's data system is unique, especially systems used to manage records on certified personnel in public schools. A few norms exist that facilitate their use. Most states maintain annual records of staff currently working in schools. These may be contained in an *employment record* file, where each employee is treated as a unique record or in an *assignment record* file, reflecting each different assignment held by different employees. Such files are annual, ideally with a unique ID by which individual employees may be matched over time and with IDs for the schools in which employees work or locations of their assignment. These files typically include salaries, job codes and descriptions, and may include educational background and experience.

More comprehensive educational background and certification information may be contained separately in a *certification record file*, which may include institutions attended major, degrees and certifications received and may also include certification exam scores. State departments of education may restrict access to information such as exam scores or college grades. Typically, certification record files are a cumulative record of all certified staff in a state, rather than annual files.

Implications

Policy research involving rich data on actual schooling contexts remain critical to advancing our understanding of contexts into which such reforms are to be implemented. Large scale, longitudinal universe data on state education systems provide invaluable insights into the way *real* public schooling systems work.

References

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