

# Using Administrative Data in Social Policy Research



**OPRE Report #2016-62**

JULY 2016

Broad requirements for government transparency and accountability have grown over the past twenty years. To meet requirements for collecting and reporting data, federal and state agencies adopted new technological and methodological tools, resulting in large-scale administrative data sets. Unlike survey research, which collects information from population samples and may require information that is difficult for participants to recall, administrative data represent official information generated through the routine tasks of government about the universe of program participants and the services they receive. These data have the potential to help us answer pressing social policy questions, yet government stakeholders and researchers are only beginning to explore the promises of using administrative data for research purposes. As

Administrative data have the potential to help us answer pressing social policy questions. Government stakeholders and researchers are beginning to explore the promises of using administrative data for research purposes.

we move from using data only for reporting purposes to using data also for program assessment and improvement, issues arise around data access, respondent privacy, and the strategic investment

of resources. How do we balance these concerns while learning as much as possible from administrative data?

## PROMISES AND CHALLENGES

Presenters framed the challenges of using administrative data and suggested ways to move towards infrastructure and standards to make the most of administrative data for both research and policy purposes. The discussion centered on legal, technical, and political barriers to sharing data, and the current lack of centralized leadership around administrative data issues. Despite noted obstacles, presenters highlighted examples of past policy priorities that spurred data solutions to suggest a path forward, including the implementation of the

This brief is based upon an innovative methods meeting that OPRE sponsored on October 1 and 2, 2015. The meeting agenda and materials can be found at [www.opremethodsmeeting.org](http://www.opremethodsmeeting.org).

Affordable Care Act, which created mechanisms to improve integration of state data systems. Steps on this path include framing a shared vision among stakeholders, creating incentives for states and localities to integrate data, providing technical assistance on legal aspects of data sharing as well as data analytics, and fostering innovation around standards and systems for data integration. Although change may take time, presenters emphasized the value of incremental progress and a vision for the future of administrative data in evidence-based policy and innovation.

## GAINING ACCESS AND MAINTAINING CONFIDENTIALITY

During a roundtable discussion, researchers and federal officials discussed the best practices for researchers planning to use administrative data. Key themes that emerged from this discussion were the importance of understanding privacy rules, allotting the time necessary to access and understand administrative data systems and variables, and the critical role of relationships between researchers and agency representatives. Presenters encouraged researchers to think carefully about the full life cycle of data use requests before initiating a request, and to identify relevant privacy concerns at each stage. While researchers new to using administrative data may assume that costs for using these data will be low because the data already exist, the intensive time required to build effective partnerships to access, understand, and protect the data should be factored into cost estimates. You can watch the video of the conversation [here](#).

## INNOVATIVE APPLICATIONS

Despite the challenges to gaining access to and working with administrative data, there are many innovative examples that show the power of administrative data for informing decisions. They also highlight when and how different types of data (e.g., historical or current; aggregate or individual-level) can be leveraged to answer complex research questions.

- ❖ By linking historical Mother’s Pensions applicant data, the Social Security Administration’s Master Death File, the 1940 Census, and WWII enlistment data, economists found that modest cash transfers in childhood led to significant long-term health benefits for poor, male children of White mothers.<sup>1</sup>
- ❖ Using naturally occurring school choice lotteries and student-level administrative records from public schools, evaluators demonstrated that a large-scale high school reform effort in New York City resulted in increased graduation rates, college readiness, and post-secondary enrollment, and reduced the cost of school per high school graduate.<sup>2</sup>
- ❖ Combining data from one state’s Departments of Mental Health, Social Services, Public Safety, Corrections, and the Division of Court-Supported Services, researchers examined how justice involvement affected behavioral health treatment costs.<sup>3</sup>
- ❖ Researchers used administrative records to map the resources available to support young children through public and non-profit providers in a major metropolitan area. They estimated that the city’s efforts to coordinate family services saved \$3 in future health expenditures for every \$1 invested.<sup>4</sup>

- ❖ The Center for Medicare and Medicaid Innovation (CMMI) uses administrative health data to conduct rapid cycle evaluation to identify effective approaches to reducing expenditures without degrading quality of care.
- ❖ In New York City, researchers designed an experiment to test behavioral “nudges” in SNAP applications to encourage complete and accurate reporting by randomly assigning applicants to one of four redesigned online applications. Results using administrative data were used to inform improvements to the application process.
- ❖ Researchers compared program impacts on math and reading achievement using both aggregate school-level and individual student-level data. For some research questions, aggregate and individual data produced similar results, meaning that researchers should carefully consider whether aggregate data could be sufficient, as these data are often more readily available than individual-level data.<sup>5</sup>
- ❖ Comparing administrative and survey data on income, researchers found the two sources of data can tell very different stories, suggesting the importance of clear attention to the research question and the ability of specific data to address it.<sup>6</sup>

Results using administrative data were used to inform improvements to the SNAP application process.

<sup>1</sup> Aizer, A., et al. (2016). The long-run impact of cash transfers to poor families. *American Economic Review*, 106, 935-971.

<sup>2</sup> Bloom, H. S., & Unterman, R. (2014). Can Small High Schools of Choice improve educational prospects for disadvantaged students? *Journal of Policy Analysis and Management*, 33, 290-319.

<sup>3</sup> Robertson, A. G., et al. (2015). Influence of criminal justice involvement and psychiatric diagnoses on treatment costs among adults with serious mental illness. *Psychiatric Services*, 66, 907-909.

<sup>4</sup> Dodge, K. A., et al. (2014). Implementation and randomized controlled trial evaluation of universal postnatal nurse home visiting. *American Journal of Public Health*, 104, S136-S143.

<sup>5</sup> Jacob, R., et al. (2014). Assessing the use of aggregate data in the evaluation of school-based interventions: Implications for evaluation research and state policy regarding public use data. *Educational Evaluation and Policy Analysis*, 36, 44-66.

<sup>6</sup> Klerman, J. A., & Loughran, D. (2011). What happens to the earnings of military reservists when they are activated? Evidence from administrative data. *Defence and Peace Economics*, 22, 1-19.

---

## WORKING WITH ADMINISTRATIVE DATA

In this session, panelists discussed challenges that researchers may face when attempting to integrate data from multiple sources and identified common issues to anticipate upon receipt of data. Multistate or multiagency comparisons involve unique challenges, such as negotiating more than one data sharing agreement and the need to harmonize measures across data sets. Since administrative data are not usually intended for secondary use, data collection is typically not documented as clearly or thoroughly as survey data would be. Therefore, it is crucial that researchers understand the relevant program and policy context as a foundation for appropriate use of the data. Finally, as states participate in data consortia and develop their own systems with the capacity to both report and analyze administrative data, panelists identified important opportunities for states to share best practices and learn from one another.

---

## FEDERAL EFFORTS AND FUTURE DIRECTIONS

Building on a conversation that unfolded over the course of the meeting, presenters discussed current federal efforts to integrate administrative data into program planning and evaluation. Government agencies collect a large amount of data for accountability purposes, but recent efforts are directed towards establishing systems that can also use those data to inform program improvement. Both at the federal level and in the states, this involves meeting the twin challenges of developing the technology to support integrated data analysis and the internal expertise or strategic research partnerships for conducting and interpreting these analyses.

Panelists emphasized the continued need for efficient, sustainable systems that support the routine use of evidence in decision-making. Researchers can maximize the impact of their findings and develop further buy-in by linking research questions to the budget cycle and other priorities of agency stakeholders.

Researchers can maximize the impact of their findings and develop further buy-in by linking research questions to the budget cycle and other priorities of agency stakeholders.

Participants emphasized the importance of partnerships that are built on trusting relationships during this process.

---

## WANT TO LEARN MORE?

To access the online meeting archive, including a detailed schedule, meeting materials, and presentation slides, please visit the OPRE Innovative Methods Meeting website at [www.opremethodsmeeting.org](http://www.opremethodsmeeting.org). The site also includes materials from other innovative methods meetings that OPRE has organized and will be updated to include future meetings.

## PRESENTATIONS

### The Promises and Challenges of Using Administrative Data for Research

*The role of administrative data in evidence-based policy and innovation* – Kathy Stack, Laura and John Arnold Foundation

*Challenges in using administrative data: Legal, technical and political* – John Petril, University of South Florida

### Roundtable Discussion – Gaining Access and Maintaining Confidentiality

Panelists –

Beth Green, Portland State University

Charles Michalopoulos, MDRC

Maya Bernstein, Department of Health and Human Services

Jennifer Noyes, University of Wisconsin

Discussant – Kelly Maxwell, Child Trends

### Cool Applications – Part I

*The long term impacts of cash transfers to poor families* – Anna Aizer, Brown University

*Evaluating a large-scale high school reform using administrative data from a naturally-occurring randomized trial* – Howard Bloom, MDRC

*Treatment costs among adults with serious mental illness: Influence of criminal justice involvement and psychiatric diagnoses* – Allison G. Robertson, Duke University

*The role of administrative data within economic evaluation* – Max Crowley, Penn State University

### The Nuts and Bolts of Working with Administrative Data

*Building data sharing infrastructure at the state level* – Aaron Schroeder, Virginia Tech

*Linking data across multiple states and multiple data sources* – Julia Henly, University of Chicago

*Challenges in linking state and federal datasets* – Robert Goerge, Chapin Hall

*The role of the policy context in using and understanding administrative data* – Elizabeth Davis, University of Minnesota

### Cool Applications – Part II

*Quick turnaround with administrative health data* – Katherine Giuriceo, Center for Medicare and Medicaid Innovation

*Using random assignment to test “nudge” messaging on SNAP applications* – Kinsey Dinan, NYC Human Resources Administration

*Using aggregate state assessment data to assess the impact of school-based interventions* – Robin Jacob, University of Michigan

*Estimating the impact of reserve activation on earnings: Survey vs. administrative data* – Jacob Klerman, Abt Associates

### Federal Efforts and Future Directions

*Census Bureau efforts to utilize and share data* – Amy O’Hara, Census Bureau

*Building state capacity to use longitudinal data systems* – Missy Cochenour, AEM Corporation

*Improving service delivery through administrative data integration and analytics* – David Mancuso, Washington State Department of Social and Health Services

*Integrated data systems and their utility for policy research and evaluation* – John Fantuzzo, University of Pennsylvania

This brief was prepared by the Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services. It was developed under Contract Number HHSP23320095651WC. RTI International assisted with preparing and formatting the brief. The ACF project officers are Anna Solmeyer and Nicole Constance. The RTI project director is Anupa Bir.

This brief is in the public domain. Permission to reproduce is not necessary. Suggested citation: *Using administrative data in social policy research*, OPRE Report #2016-62, Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.

This brief and other reports sponsored by the Office of Planning, Research and Evaluation are available at [www.acf.hhs.gov/opre](http://www.acf.hhs.gov/opre).

Disclaimer: The views expressed in this publication do not necessarily reflect the views or policies of the Office of Planning, Research and Evaluation, the Administration for Children and Families, or the U.S. Department of Health and Human Services.