

THE LESSONS OF ADMINISTRATIVE DATA:

High-Profile Policy-Relevant Research Powered by Administrative Data



Data gathered by government agencies, school systems, police departments, and hospitals for purposes other than evaluation has powered some of the most important and policy-relevant research produced over the last several years. Compared to new data collected through surveys, administrative data can cost much less, allow for faster turn-around of results, enable long-term follow-up, and improve the accuracy of study findings.¹ For these reasons, and in light of the rapidly growing scope of administrative data, expanding access to these data for research purposes is a priority for both policymakers² and academic researchers.³ This document highlights a few examples of landmark studies made possible by administrative data.

PROGRAMS TO REDUCE CRIME AMONG AT-RISK YOUTH

Administrative data helped illuminate the power of summer jobs programs and cognitive behavioral therapy^{4,5} to reduce crime and violence among at-risk youth. Using state and city level arrest and incarceration data, school records, and residency data from the Cook County juvenile detention facility, researchers from the University of Chicago Crime Lab found that these programs led to large declines in violent crime, arrests, and recidivism and improvement in academic outcomes. These results ultimately led to vocal mayoral and presidential support of these programs and substantial increases in funding and youth served.

Access to administrative data eliminated the need to track down and survey thousands of youth years after they did (or did not) participate in the programs. Such a survey would have been cost-prohibitive, and obtaining responses from a sufficiently complete sample would have been nearly impossible logistically. Administrative data also alleviated the need to rely on voluntary reports of criminal activity, which are quite unreliable. One study found that survey estimates of arrests understate actual arrests (as reported in arrest data) by more than 30 percent.⁶ This would be particularly problematic if participants in a crime prevention program are less inclined to report being arrested than non-participants.

UNDERSTANDING THE IMPACT OF EXPANDING MEDICAID

Using administrative data, researchers studied the expansion of Oregon's Medicaid program to inform one of the most salient political debates of the last decade: the impact of providing health insurance to the uninsured. The state of Oregon's decision in 2008 to allocate application slots in its expanded Medicaid program by lottery offered researchers an extraordinary opportunity to understand the causal impact of the program by comparing the outcomes of lottery winners to lottery losers. In addition to a survey of lottery winners and losers, researchers measured outcomes for over 20,000 individuals using administrative data sources such as hospital records, employment data, and state and federal benefits records. The administrative data allowed researchers to discover a key finding that would have otherwise been obscured by fading memories: When researchers surveyed lottery winners and lottery losers about emergency room use, they found no statistically significant difference. However, by looking at Portland-area hospital records, researchers found that Medicaid increased emergency room use by 40 percent.

¹ For a guide on using administrative data in randomized evaluations, see Feeney, Laura, Jason Bauman, Julia Chabrier, Geeti Mehra, and Michelle Woodford. 2015. "Using Administrative Data for Randomized Evaluations." *J-PAL North America*.

² For example, see Office of Management and Budget. 2015. "Building Evidence with Administrative Data." *Analytical Perspectives, Budget of the United States Government, Fiscal Year 2016*, Chapter 7.

³ For example, see Card, David, Raj Chetty, Martin Feldstein, and Emmanuel Saez. 2011. "Expanding Access to Administrative Data for Research in the United States." Working Paper.

⁴ Heller, Sara B. 2014. "Summer jobs reduce violence among disadvantaged youth." *Science* 346 (6214): 1219-23.

⁵ Heller, Sara, Harold A. Pollack, Roseanna Ander, and Jens Ludwig. 2013. "Preventing Youth Violence and Dropout: A Randomized Field Experiment." NBER Working Paper #19014.

⁶ Kling, Jeffrey R., Jens Ludwig, and Lawrence F. Katz. 2005. "Neighborhood Effects on Crime for Female and Male Youth: Evidence from a Randomized Housing Voucher Experiment." *The Quarterly Journal of Economics* 120(1): 87-130.

Other outcomes measured included health care utilization (use of preventive care and emergency services increased), financial strain (catastrophic expenses and other measures decreased), mental health (depression rates declined), physical health (perceptions of health improved, but measured physical health did not detectably change), and employment and earnings (neither improved). Measuring all of these outcomes for both lottery winners and losers would have likely been impossible through surveys alone.⁷

SIMPLIFYING FINANCIAL AID PROCESSES

Through access to national-level data on college enrollment and financial aid, researchers found that a streamlined aid process improved access to college. Researchers partnered with H&R Block to conduct a large-scale randomized evaluation of the impact of providing financial aid application assistance to low-income adults and dependent children from low-income families.⁸ For recipients in the treatment group, H&R Block pre-populated some aspects of the free application for federal student aid (FAFSA) and provided personalized assistance and information about financial aid options. Compared to a control group that received a basic brochure on college financial aid, treatment group individuals were more likely to submit the form and receive aid, as measured in U.S. Department of Education data. Records on college registration from the Ohio Board of Regents and the National Student Clearinghouse allowed researchers to track later outcomes for over 25,000 individuals and determine that simply making it easier to apply for financial aid substantially increased the likelihood that individuals with limited means would attend college and stay in college once they enrolled. In recent years, policymakers have increasingly called for simplifying the financial aid process, and a White House report cited this study as the most direct test of the impact of reducing complexity in the financial aid application process.

UNDERSTANDING EFFECTS OF NEIGHBORHOODS

Researchers leading the Moving to Opportunity (MTO) experiment used administrative data to comprehensively examine the long-term impacts of housing voucher programs and moves to lower-poverty neighborhoods.⁹ Through MTO, families were selected by lottery to receive housing vouchers, some of which required families to move to neighborhoods with low poverty rates. Initial and mid-term studies, which leveraged unemployment insurance data, arrest records, college enrollment data, benefits data, and census data found that adults who moved had no change in employment, income, or use of government benefits (although surveys showed they were happier and healthier). However, a long-term follow-up study, made possible by access to tax records, revealed that for young children (less than 13-years-old at the time of the move), moving to a low-poverty neighborhood increased expected lifetime earnings by about \$300,000. This study also found that children who moved were more likely to attend college, attended better colleges, and lived in better neighborhoods as adults, and women were less likely to become single mothers. Administrative data allowed for long-term follow-up and was critical in assuring equivalent data coverage for both treatment and control groups, a formidable and expensive task with long-term surveys. For instance, recipients of vouchers may be more likely to have moved and thus harder to locate, or they may be more or less likely to be in jail, employed, etc. These concerns of differential coverage across treatment and control group can be mitigated using administrative data.

⁷ Taubman, Sarah, Heidi Allen, Bill Wright, Katherine Baicker, and Amy Finkelstein. 2014. "Medicaid Increases Emergency Department Use: Evidence from Oregon's Health Insurance Experiment." *Science* 343(6168): 263-8.

⁸ Bettinger, Eric P., et al. 2002. "The role of application assistance and information in college decisions: Results from the H&R Block FAFSA experiment." *The Quarterly Journal of Economics* 127.3 (2012): 1205-1242.

⁹ Chetty, Raj, Nathaniel Hendren, and Lawrence F. Katz. 2016. "The effects of exposure to better neighborhoods on children: New evidence from the Moving to Opportunity experiment." *The American Economic Review* 106.4 (2016): 855-902.