

Kevin Crouse

Data Analysis for the Public Good

Objective

I am seeking a position to leverage my expertise in research on teacher effectiveness and evidence use, my proficiency in data management and automation, and my ability to work effectively with dynamic stakeholder teams to improve outcomes for students.

Analysis programs: R, SPSS, Atlas.ti, Dedoose, Qualtrics
Programming: Python, SQL, Perl, Javascript/jQuery, Java, C
Development Skills: Database design, workflow process management, automated testing and development, agile/iterative methods, web MVC
Research Skills: Multivariate analysis, survey design, multi-level modeling, quantitative and qualitative research design

Work Experience

School District of Philadelphia, Philadelphia, PA – Senior Associate

7.2017-present In the Planning and Evidence-Based Support Office, I help school and district leaders set measurable goals, develop tools to monitor progress, and support the evaluation of and decision-making surrounding outcomes. This includes working with school leaders in continuous improvement cycles; calculating and validating performance indicators; building data systems and reports to facilitate progress monitoring; performing ad-hoc analyses to assist Assistant Superintendents and other school/district leaders; leading implementation of performance management initiatives and action planning; developing tools for operational processes.

School System Improvement Project, Piscataway, NJ – Research Analyst

9.2016-7.2017 In this role, I built data management systems to analyze, integrate, quality control, and process disparate datasets (including state rosters, local assessments, PARCC, teacher observations); conducted quantitative analyses; coordinated data-gathering with schools; create programs to identify incorrect data entry scenarios; balanced priority needs of project managers, researchers, instructional coaches, and school administrators; developed new data collection procedures to decrease errors; prepared proposals and presentations for annual reports, academic conferences, and school feedback. I primarily used SQLite and Postgres for database management, Python for automation, and R and SPSS for data analysis.

KIPP New Jersey, Newark, NJ – Summer Data Science Intern

5.2015-8.2015 For this internship during my doctoral work, I aggregated, integrated, and analyzed teacher and student data available through several databases (including PowerSchool and ADP), spreadsheets, and other data sources and

conducted interviews to understand current practices and uses of data. I used R/Shiny, Python, and Perl to conduct analyses.

McDonnell Genome Institute, Saint Louis, MO – Senior Developer

5.2000-6.2011 At the MGI, my role as a senior full-stack software developer helped to produce high quality genetic sequence for projects that included the Human Genome Project and The Cancer Genome Atlas. This included the fully lifecycle of software and database development, project management duties on teams with non-technical managers and external stakeholders, and as a rotating technical lead of ad-hoc developer teams in an agile work environment. I designed/implemented standalone application frameworks, web MVC and REST platforms, and both OLTP and OLAP Business Intelligence database systems and facilitated data-driven decision-making through data analysis tools.

Education

Rutgers University – Ph.D. Candidate in Educational Theory, Organization, Policy

9.2011-present My research focuses on (A) teacher and school effectiveness measures to understand how to improve student outcomes and implement valid assessments and (B) data-informed decision-making to understand how educational leaders and practitioners can use assessment data and research evidence to make more effective decisions. I have written articles and reports, presented work to researchers and educational leaders, and developed computational tools (online survey systems, collaboration platforms, and libraries to manage data sets) to assist in our work. 4.0 GPA.

Rutgers University – M.A. in Education

10.2014 Coursework focused on mixed methods, including multivariate statistics, social network analysis, regression, hierarchical linear modeling, survey development, factor analysis, interviewing, qualitative coding, classroom observations, path analysis. 4.0 GPA.

Washington University in Saint Louis – B.S. in Computer Science; A.B. in English Literature and Secondary Education

5.2003 Graduated with College Honors. 3.61 GPA.

Publications

Gitomer, D. and Crouse, K. (forthcoming). *Measuring the Use of Research Evidence*. Research report prepared for the William T. Grant Foundation.

Crouse, K., & Gitomer, D. H. (in review). The Impact of Aggregation Decisions on Composite Teacher Evaluation Scores. *Educational Administration Quarterly*.

Crouse, K., & Joyce, J. (2018). Race to the Top. In B. Frey (Ed.), *The SAGE Encyclopedia of Educational Research, Measurement, and Evaluation*. Thousand Oaks, CA: Sage Publications.

Crouse, K., Joyce, J., and Gitomer, D. (2017). Student Learning Objectives in teacher evaluation systems. In A. Amrein-Beardsley and K. K. Hewitt (Eds.), *Student Growth Measures: Where Policy Meets Practice*. New York: Palgrave Macmillan.

- Gitomer, D., Crouse, K., and Joyce, J. (2014). *A review of the DC IMPACT Teacher Evaluation System*. Commissioned paper prepared for the Five-Year Summative Evaluation of the District of Columbia Public Schools by the National Academy of Sciences.
- Assini, C., Crouse, K., Doyle, K., Firestone, W., ... Vines, M. (2013). From data collection to improved practice: Using principal evaluation. *NJPSA Government Relations Advocacy Update*, 5 (34).
- Schnable, P. S., Ware, D., Fulton, R. S., ..., Wilson, R. K. (2009). The B73 maize genome: complexity, diversity, and dynamics. *Science*, 326 (5956), 1112-1115.
- Wendl, M., Smith, S., Pohl, C. S., Dooling, D. D., ... Wilson, R. K. (2007). Design and implementation of a generalized laboratory data model. *BMC Bioinformatics*, 8 (362).
- Lander, E. S., Linton, L. M., Birren, B., Nusbaum, C., ... Grafham, D. (2001). Initial sequencing and analysis of the human genome. *Nature*, 409 (6822), 860-921.

Grant Funded Research

- 1.2017-present **William T. Grant Foundation, New York: \$60,000.**
Understanding measures of research and evidence used by practitioners involved in the education and welfare of young people.
- 1.2012-12.2013 **American Federation of Teachers, Washington, DC: \$40,000.**
Conceptualizing and analyzing the Race to the Top teacher evaluation systems.

Academic Honors

- 2017 **Harvard Strategic Data Project**
Strategic Data Fellow (*accepted, but did not participate*)
- 3.2014 **University Council for Educational Administration**
David L. Clark Fellowship
- 5.2013-5.2015 **Rutgers University**
Pre-Doctoral Leadership Development Institute Fellowship
- 1.2008-10.2008 **Institute of International Education**
Fulbright Teaching Assistantship Grant to Malaysia
- 5.2003 **Washington University in Saint Louis**
Graduated with College Honors

University Teaching Experience

- 8.2015-5.2016 Rutgers University – *Principles of Educational Psychology*, required course for the Masters in Education. Instructor.
- 8.2014-12.2014 Rutgers University – *Education Research Methods*, survey course of research methods for first year doctoral students. Co-instructor and designer. Designed this survey course of research methods for first year doctoral students.
- 1.2011-5.2011 Washington University in Saint Louis – *Systems thinking and decision analysis*, Teaching assistant.

Invited Presentations

- Crouse, K., & Kirkedol, S. (2014). *Measurement of student learning: Student Learning Objectives*. Presented to the REL-NEI-NEERA, Implementation of Educator Evaluation Systems: Examining Problems of Practice conference, Cambridge, MA.
- Firestone, W., Hughes, P., Crouse, K., Doyle, K., & Vines, M. (2014). *From data collection to improved practice: Using principal evaluation*. Presented to the Morris Area Curriculum Network, Parsippany, NJ.

Scholarly Presentations (Selected)

- Reddy, L. A., Lekwa, A. L., Crouse, K., ..., & Kurz, A. (2018). *Predictive Validity of Classroom Observations and Self-Reflections for Student Growth*. Paper presented at the National Council on Measurement in Education 2018 Annual Conference, New York, NY.
- Glover, T. A., Reddy, L., & Crouse, K. (2018). *Instructional Coaching Actions That Predict Improved Teacher Practice*. Presented at the American Education Research Association 2018 Annual Meeting, New York, NY.
- Crouse, K. Joyce, J., & Cavera, V. (2016). *Crossing Boundaries: Reflexive Analysis of Collaborative Learning in Research Institutions*. Paper presentation at the International Conference of the Learning Sciences, Singapore.
- Crouse, K. Joyce, J., & Cavera, V. (2016). *Investigating networks of professional interaction in the academic research community*. Presented at the American Education Research Association 2016 Annual Meeting, Washington, D.C.
- Crouse, K. & Joyce, J. (2015). *Student Learning Objectives as a growth measure in Teacher Evaluation Systems*. Presented at the International Congress for School Effectiveness and Improvement, Cincinnati, OH.
- Crouse, K., Joyce, J., & Gitomer, D. H. (2014). *Comparative analysis of the design and implementation of Race to the Top teacher evaluation systems*. Presented at the American Education Research Association 2014 Annual Meeting, Philadelphia, PA.
- Crouse, K. & Gitomer, D. H. (2014). *Do approaches to combining teaching quality measures matter?* Presented at the American Education Research Association 2014 Annual Meeting, Philadelphia, PA.
- Crouse, K., Kirova, D. & Blitz, C. (2013). *Does technology help vocabulary instruction? Results of a classroom experiment*. Presented at the Rutgers Graduate Student Presentation Series, New Brunswick, NJ.
- Crouse, K. (2013). *Low-Fee private schools and high-quality education in Rural India*. Poster presented at the Comparative and International Education Society Conference, New Orleans, LA.
- Zaal, M., Ayala, J., Ford, B., Crouse, K., & Terry, J. (2013). *YPAR in the Classroom: The quest for youth empowerment through school-based civic learning*. Symposium presented at the Ethnography in Education Research Forum, Philadelphia, PA.

Community Involvement

- 5.2013-2018 **CASA of Middlesex County, New Brunswick, NJ – Advisory Board Member**
Working to build the local Court Appointed Special Advocate program in NJ. Also Board Secretary, 2015-present.
- 10.2012-2017 **Mid-Atlantic Education Review, Rutgers University – Editor**
Serving as senior editor for an electronic, peer-reviewed journal.
- 7.2013-6.2015 **North Carolina State University – Distributed groupwork study**
An online application framework for a research study in organizational psychology looking at the effects of racial bias in virtual work environments.
- 5.2005-6.2011 **Voices for Children, St Louis, MO – CASA**
A Court Appointed Special Advocate (CASA), which advocates for children in foster and group homes in an official capacity.
- 5.2009-6.2011 **Arch Reactor, St Louis, MO – Founding Member, Treasurer**
Founding member of the local Saint Louis HackerSpace/ MakerSpace, a 501(c)3 non-profit that provides a physical space for programmers, technologists, and artists.
- 1.2009-4.2011 **St Louis, MO – MetroText**
I wrote a platform that built a database from local GTFS transit data to provide point-of-transit scheduling information via SMS text messages for the Saint Louis region.