

# Roddy Theobald

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## EDUCATION:

2009-2015 **University of Washington**, PhD in Statistics

2002-2006 **Carleton College**, B.A. in Mathematics

## PROFESSIONAL EXPERIENCE:

2015- **American Institutes for Research**, Researcher (2015-16) and Senior Researcher (2016-) National Center for Analysis of Longitudinal Data in Education Research (CALDER)

2010-2015 **Center for Education Data and Research**, Research Assistant

2006-2009 **Oakland (CA) Unified School District**, 7<sup>th</sup> grade math teacher at Westlake Middle School, Teach For America corps member

## EXTERNAL GRANT FUNDING:

2018-2022 **Institute for Education Sciences**, What is the value of apprenticeship for teachers? Linking preservice mentor quality to inservice teacher and student outcomes, \$1,396,583, co-PI

2017-2021 **Institute for Education Sciences**, The special education teacher pipeline in Washington State: A comprehensive analysis of preservice predictors of special education teacher career paths and effectiveness, \$1,381,671, PI

2017-2020 **National Science Foundation**, The STEM teacher pipeline in Washington State: A comprehensive analysis of preservice predictors of STEM teacher career paths and effectiveness, \$1,252,933, co-PI

2017-2019 **Institute for Education Sciences**, The teacher pipeline in Massachusetts: Connecting preservice performance measures to inservice teacher outcomes, \$399,344, PI

2015-2018 **Anonymous Foundation**, The teacher pipeline in Washington State: Examining the transition from student teaching to the classroom and implications for student achievement, \$300,000, co-PI

2015-2018 **Bill and Melinda Gates Foundation**, The teacher pipeline in Washington State: Examining the transition from student teaching to the classroom and implications for workforce diversity, \$710,391, co-PI

2015-2018 **Spencer Foundation**, Seizing a missed opportunity: Transforming the placement, evaluation, and hiring of student teachers in Spokane Public Schools, \$399,935, co-PI

2015-2017 **Institute for Education Sciences**, Predictors of postsecondary success for students with disabilities, \$589,459, co-PI

2015-2017 **Massachusetts Department of Elementary and Secondary Education**, Evaluation of state education programs: Educator preparation and licensure, \$150,000, co-PI

2015-2017 **William T. Grant Foundation**, Understanding teacher quality gaps: How did they form, and how might they be closed? \$460,433, co-PI

**PUBLICATIONS:**

- Goldhaber, D., **Theobald, R.**, and Tien, C. (in press). Why we need a diverse teacher workforce. *Phi Delta Kappan*, February 2019 Special Issue.
- Goldhaber, D., Quince, V., & **Theobald, R.** (2018). Has it always been this way? Tracing the evolution of teacher quality gaps in U.S. public schools. *American Educational Research Journal*, 55(1), 171-201.
- Goldhaber, D., **Theobald, R.**, and Tien, C. (2018). Educator and student diversity in Washington State: Gaps and historical trends. *WERA Educational Journal* 10(2), 3-9.
- Marianno, B.D., Kilbride, T., **Theobald, R.**, Strunk, K.O., Cowen, J.M., & Goldhaber, D. (2018). Cut from the same cloth? Comparing urban district CBAs within states and across the U.S. *Educational Policy*, 32(2), 334-359.
- Strunk, K.O., Cowen, J.M., Goldhaber, D., Marianno, B.D., Kilbride, T., & **Theobald, R.** (2018). It's in the contract: How the policies set in teachers' unions collective bargaining agreements vary across states and districts. *Educational Policy*, 32(2), 280-312.
- Theobald, R.**, Goldhaber, D., Gratz, T., & Holden, K. (2018). Career and technical education, inclusion, and postsecondary outcomes for students with learning disabilities. *Journal of Learning Disabilities*, 0022219418775121.
- Freeman, S., **Theobald, R.**, Crowe, A. J., & Wenderoth, M. P. (2017). Likes attract: Students self-sort in a classroom by gender, demography, and academic characteristics. *Active Learning in Higher Education*, 18(2), 115-126.
- Goldhaber, D., Cowan, J., and **Theobald, R.** (2017). Evaluating prospective teachers: Testing the predictive validity of the edTPA. *Journal of Teacher Education*, 68(4), 377-393.
- Goldhaber, D., Gratz, T., and **Theobald, R.** (2017). What's in a teacher test? Assessing the relationship between teacher licensure test scores and student secondary STEM achievement and course taking. *Economics of Education Review* 61, 112-129.
- Goldhaber, D., Krieg, J. M., & **Theobald, R.** (2017). Does the match matter? Exploring whether student teaching experiences affect teacher effectiveness. *American Educational Research Journal*, 54(2), 325-359.
- Cowan, J., Goldhaber, D., Hayes, K., and **Theobald, R.** (2016). Missing elements in the discussion of teacher shortages. *Educational Researcher* 45(8), 460-462.
- Goldhaber, D., Lavery, L., and **Theobald, R.** (2016). Inconvenient truth? Do CBAs help explain the mobility of teachers within school districts? *Journal of Policy Analysis and Management* 35(4), 848-880.
- Krieg, J., **Theobald, R.**, and Goldhaber, D. (2016). A foot in the door: Exploring the role of student teaching assignments in teachers' initial job placements. *Educational Evaluation and Policy Analysis* 38, 364-388.
- Goldhaber, D., Krieg, J., **Theobald, R.**, and Brown, N. (2015). Refueling the STEM and special education teacher pipelines. *Phi Delta Kappan* 97, 56-62.
- Goldhaber, D., Lavery, L., and **Theobald, R.** (2015). Uneven playing field? Assessing the teacher quality gap between advantaged and disadvantaged students. *Educational Researcher*, 44(5), 293-307.
- Goldhaber, D., Krieg, J., & **Theobald, R.** (2014). Knocking on the door to the teaching profession? Modeling the entry of prospective teachers into the workforce. *Economics of Education Review*, 42, 106-124.

- Goldhaber, D., Lavery, L., and **Theobald, R.** (2014). My end of the bargain: Are there cross-district effects in teacher contract provisions? *Industrial and Labor Relations Review* 67(4), 1274-1305.
- Theobald, R.** and Freeman, S. (2014). Is it the intervention or the students? Using linear regression to control for student characteristics in undergraduate STEM education research. *CBE—Life Sciences Education* 13, 41-48.
- Brownell, S., Wenderoth, M.P., **Theobald, R.**, Okoroafor, O., Koval, M., Freeman, S., Walcher, C., Crowe, A. (2014). How students think about experimental design: Novel conceptions revealed by in-class activities. *Bioscience* 64(2), 125-137.
- Goldhaber, D. and **Theobald, R.** (2013). Managing the teacher workforce in austere times: The determinants and implications of teacher layoffs. *Education Finance and Policy* 8(4), 494-527.
- Goldhaber, D., Liddle, S., and **Theobald, R.** (2013). The gateway to the profession: Evaluating teacher preparation programs based on student achievement. *Economics of Education Review* 34, 29-44.
- Goldhaber, D., Lavery, L., **Theobald, R.**, D'Entremont, D., and Fang, Y. (2013). Teacher collective bargaining in Washington State: Assessing the internal validity of partial independence item response measures of contract restrictiveness. *SAGE Open*, April-June 2013, 1-16.
- Goldhaber, D., Liddle, S., **Theobald, R.**, and Walch, J. (2012). Teacher effectiveness and the achievement of Washington's students in mathematics. *WERA Educational Journal* 4(2), 6-12.
- Goldhaber, D. and **Theobald, R.** (2012). Do different value added models tell us the same things? *Carnegie Knowledge Network*, October 2012.
- Goldhaber, D. and **Theobald, R.** (2011). Managing the teacher workforce: The consequences of "last in, first out" personnel policies. *Education Next* 11(4), Fall 2011, 78-83.

#### REPORTS AND WORKING PAPERS:

- Cowan, J., Goldhaber, D., & **Theobald, R.** (2017). Massachusetts educator preparation and licensure: Year 1 report. <http://www.doe.mass.edu/edprep/resources/improvement/TPS-1stYearReport.pdf>.
- Cowan, J., Goldhaber, D., & **Theobald, R.** (2018). Massachusetts educator preparation and licensure: Performance review program for initial licensure study. <http://www.doe.mass.edu/research/reports/2018/01prpil-analysis.docx>.
- Cowan, J., Goldhaber, D., & **Theobald, R.** (2018). An exploration of sources of variation in teacher evaluation ratings across classrooms, schools, and districts. CALDER Working Paper No. 197-0618-1.
- Goldhaber, D., Grout, C., Harmon, K., & **Theobald, R.** (2018). A practical guide to challenges and opportunities in student teaching: A school district's perspective. CALDER Working Paper No. 205-1018-1.
- Goldhaber, D., Krieg, J., & **Theobald, R.** (2018). The costs of mentorship? Exploring student teaching placements and their impact on student achievement. CALDER Working Paper 187.
- Goldhaber, D., Krieg, J., & **Theobald, R.** (2018). Effective like me? Does having a more productive mentor improve the productivity of mentees? CALDER Working Paper No. 208-1118-1.
- Goldhaber, D., Krieg, J., & **Theobald, R.** (2018). Exploring the impact of student teaching apprenticeships on student achievement and mentor teachers. CALDER Working Paper No. 207-1118-1.
- Goldhaber, D., Quince, V., & **Theobald, R.** (2018). How did it get this way? Disentangling the sources of teacher quality gaps across two states. CALDER Working Paper No. 209-1118-1.

- Goldhaber, D., **Theobald, R.**, & Fumia, D. (2018). Teacher quality gaps and student outcomes: Assessing the association between teacher assignments and student math test scores and high school course taking. CALDER Working Paper 185.
- Krieg, J., Goldhaber, D., & **Theobald, R.** (2018). Teacher candidate apprenticeships: Assessing the who and where of student teaching. CALDER Working Paper No. 206-1118-1.
- St. John, E., Goldhaber, D., Krieg, J., & **Theobald, R.** (2018). How the match gets made: Exploring student teacher placements across teacher education programs, districts, and schools. CALDER Working Paper No. 204-1018-1.
- Strunk, K., Goldhaber, D., Cowen, J., Marianno, B., Kilbride, T., & **Theobald, R.** (2018). Collective bargaining and state-level reforms: Assessing changes to the restrictiveness of Collective Bargaining Agreements across three states. CALDER Working Paper No. 210-1218-1.
- Theobald, R.**, Goldhaber, D., Gratz, T., & Holden, K. (2017). Career and technical education, inclusion, and postsecondary outcomes for students with disabilities. CALDER Working Paper 177.
- Theobald, R.**, Goldhaber, D., Gratz, T., & Holden, K. (2018). High school English Language Arts teachers and postsecondary outcomes for students with and without disabilities. CALDER Working Paper No. 199-0718-1.

#### **PAPERS IN PREP AND REVIEW:**

- Chen, B., Cowan, J., Goldhaber, D., & **Theobald, R.** (in prep). Straight from the source: What can preservice surveys tell us about future teacher quality?
- Cowan, J., Chen, B., Goldhaber, D., & **Theobald, R.** (in prep). From the clinical experience to the classroom: Assessing the predictive validity of the Massachusetts Candidate Assessment of Performance.
- Goldhaber, D., Grout, C., Templeton, M., & **Theobald, R.** (in prep). Seizing a missed opportunity: Transforming the placement and evaluation of student teachers in Spokane Public Schools.
- Goldhaber, D., **Theobald, R.**, & Fumia, D. (in prep). The importance of teacher assignments in explaining STEM outcome gaps.

#### **RESEARCH BRIEFS:**

- Theobald, R.** (2018). Career and technical education for students with disabilities. CALDER Research Brief.
- Cowan, J., Goldhaber, D., & **Theobald, R.** (2017). Teacher equity gaps in Massachusetts. <http://www.doe.mass.edu/research/reports/2017/10teacher-equity.pdf>.
- Goldhaber, D., Quince, V., & **Theobald, R.** (2016). Reconciling different estimates of teacher quality gaps based on value added. CALDER Policy Brief 14.
- Goldhaber, D. and **Theobald, R.** (2015). Re-framing the discussion about teacher education. Washington, DC: National Center for the Analysis of Longitudinal Data in Education Research (CALDER), American Institutes for Research.

#### **EDITORIALS AND BLOG POSTS:**

- Cowan, J., Goldhaber, D., and **Theobald, R.** (2018). Partnering to assess teacher equity gaps in Massachusetts. *Education Week Urban Education Reform: Bridging Research and Practice Blog*, January 22, 2018.
- Goldhaber, D. and **Theobald, R.** (2016). Sorting out the issues in the teacher shortage crisis. *The 74 Million*, September 22, 2016.

Goldhaber, D., Lavery, L., and **Theobald, R.** (2014). Closing the teacher quality gap. *Seattle Times*, June 9, 2014.

Goldhaber, D., Lavery, L., and **Theobald, R.** (2014). Getting serious about the teacher quality gap. *Tacoma News Tribune*, March 26, 2014.

Goldhaber, D. and **Theobald, R.** (2011). Seniority-based layoffs hurt schools, students. *Tacoma News Tribune*, July 4, 2011.

#### **PRESENTATIONS, WEBINARS, AND WORKSHOPS:**

*Presentations by co-authors omitted*

- 2018 **CALDER Webinar Series.** Recent developments in research on Career and Technical Education.
- 2018 **Association for Public Policy Analysis and Management Fall Conference**, Washington, DC. What can preservice surveys tell us about future teacher quality?
- 2018 **College and Career Readiness and Success Center Webinar Series.** Pursuit of equity: Teacher preparation for the inclusion of students with disabilities in career and technical education.
- 2018 **College and Career Readiness and Success Center Webinar Series.** Pursuit of equity: Leveraging career and technical education for students with disabilities.
- 2018 **College and Career Readiness and Success Center Webinar Series.** Pursuit of equity: Aligning transition planning from the state, district, and school levels.
- 2018 **American Educational Research Association Annual Meeting**, New York, NY. How did it get this way? Disentangling the sources of teacher quality gaps across two states.
- 2018 **Washington State Professional Educator Standards Board**, Des Moines, WA. Processes in the teacher pipeline impacting teacher workforce diversity and student achievement.
- 2018 **Association for Education Finance and Policy Conference**, Portland, OR. How did it get this way? Disentangling the sources of teacher quality gaps across two states.
- 2017 **Association for Public Policy Analysis and Management Fall Conference**, Chicago, IL. Seizing a missed opportunity: Transforming the placement and evaluation of student teachers in Spokane Public Schools.
- 2017 **University of Washington Secondary Special Education Doctoral Leadership Program Seminar**, Seattle, WA. Career and technical education, inclusion, and postsecondary outcomes for students with disabilities.
- 2017 **University of Vermont College of Education**, Burlington, VT (remote). Career and technical education, inclusion, and postsecondary outcomes for students with disabilities.
- 2017 **Association for Education Finance and Policy Conference**, Washington, DC. Predictors of intermediate and postsecondary outcomes for students with disabilities.
- 2017 **University of Washington Center for Statistics in the Social Sciences Seminar**, Seattle, WA. Does the match matter? Exploring how student teaching experiences affect teacher effectiveness.
- 2016 **Western Washington University Economics Seminar**, Bellingham, WA. Does the match matter? Exploring how student teaching experiences affect teacher effectiveness.
- 2016 **Association for Education Finance and Policy Conference**, Denver, CO. Lord's paradox and targeted interventions: The case of special education.
- 2015 **Association for Public Policy Analysis and Management Fall Conference**, Miami, FL. Does the match matter? Exploring how student teaching experiences affect teacher career paths and effectiveness.

- 2015 **Joint Statistical Meetings**, Seattle, WA. Single World Object Oriented Plates (SWOOPs): A graphical framework for causal reasoning in multivariate, multilevel, and longitudinal settings.
- 2015 **Association for Education Finance and Policy Conference**, Washington, DC. Inconvenient truth? Do CBAs help explain the mobility of teachers within school districts?
- 2014 **Society for the Advancement of Biology Education Research National Meeting**, Minneapolis, MN. Making sense of regressions with student outcome data.
- 2014 **American Education Research Association Annual Meeting**, Philadelphia, PA. Response to intervention? Estimating the causal effect of special education services on student performance.
- 2014 **American Education Research Association Annual Meeting**, Philadelphia, PA. My end of the bargain: Are there cross-district effects in teacher contract provisions?
- 2014 **Society for Research on Educational Effectiveness Spring Conference**, Washington, DC. Evaluating non-randomized educational interventions: A graphical discussion.
- 2013 **Northwest Math Conference**, Bellevue, WA. Pictures, measures, and models of association in data.
- 2012 **Association for Education Finance and Policy Conference**, Boston, MA. My end of the bargain: Are there cross-district effects in teacher contract provisions?
- 2011 **Association for Education Finance and Policy Conference**, Seattle, WA. Managing the teacher workforce in austere times: The determinants and implications of teacher layoffs.

#### **AWARDS AND FELLOWSHIPS:**

- 2013 **Z.W. Birnbaum Award for Outstanding General Exam**, University of Washington Department of Statistics
- 2010 **Dorothy M. Gilford Prize for Excellence in Teaching by a Graduate Student**, University of Washington Department of Statistics
- 2009 **VIGRE Fellowship**, University of Washington Department of Statistics and the National Science Foundation

#### **UNIVERSITY TEACHING EXPERIENCE:**

- 2014 **University of Washington**, Instructor for STAT 395: Probability II
- 2012 **University of Washington**, Instructor for STAT 220: Basic Statistics
- 2009 **University of Washington**, Teaching Assistant for STAT 221: Statistical Concepts and Methods for the Social Sciences (Instructor: June Morita)

#### **EXTERNAL REVIEWER FOR:**

*Action in Teacher Education*  
*Active Learning in Higher Education*  
*American Educational Research Association*  
*American Educational Research Journal*  
*American Statistician*  
*CBE—Life Sciences Education*  
*Economics of Education Review*  
*Education Economics*  
*Educational Evaluation and Policy Analysis*  
*Education Finance and Policy*  
*Educational Policy*

*Educational Researcher*  
*Elementary School Journal*  
*Journal of Educational and Behavioral Statistics*  
*Journal of Teacher Education*  
*Journal of Research on Educational Effectiveness*  
*SAGE Open*