

Graduate School of Education  
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## APPOINTMENTS

2016 - Present     *Assistant Professor of Education*, Graduate School of Education, University of Pennsylvania

## EDUCATION

2011 – 2016     Ph.D., Statistics, Northwestern University  
Dissertation: Extensions to the Generalizability of Experiments in the Social Sciences  
Dissertation Committee: Larry V. Hedges, Bruce D. Spencer, and Hongmei Jiang

2008 – 2010     M.Ed., Mathematics Education, Lehman College, City University of New York  
Thesis: Conceptual Challenges in the Transition to Algebra for Middle School Students  
Thesis Advisor: Pauline Mattis, Ed.D.

2004 – 2008     B.A., Economics and Mathematics, Barnard College, Columbia University (*magna cum laude*)  
Minor in Physics

2006             Shanghai Jiaotong University, Shanghai, People's Republic of China  
Semester abroad in Shanghai Business Internship Program of Columbia University

## FELLOWSHIPS, AWARDS AND HONORS

2015 – 2016     Northwestern University Fellowship

2004 – 2008     British Petroleum Scholarship, Barnard College

2004 – 2008     Dean's List, Barnard College

## RESEARCH FUNDING

2017 – 2018     **Principal Investigator**, Assessing the Role of Covariates and Matching in Improving Bounds for Generalization and in Understanding Generalizations Over Time. Spencer Foundation.  
Funding: \$36,033.50.

2017 – 2018     **Principal Investigator**, Assessing the Role of Administrative Data in Improving Generalizations from Experimental Studies. University Research Foundation, University of Pennsylvania.  
Funding: \$43,495.00.

## PEER REVIEWED PUBLICATIONS

(† indicates co-first author)

1. **Chan, W.** (2018+). The Relation Among Design Parameters for Statistical Power Between Continuous and Binomial Outcomes in Cluster Randomized Trials. *Psychological Methods*.
2. **Chan, W.** (2018). Applications of Small Area Estimation to Generalization with Subclassification by Propensity Scores. *Journal of Educational and Behavioral Statistics*, 43(2), 182 – 224.
3. **Chan, W.** (2017). Partially Identified Treatment Effects for Generalizability. *Journal of Research on Educational Effectiveness*, 10(3), 646 – 669.

4. Tipton, E., Hallberg, K., Hedges, L.V., and **Chan, W.** (2016). Implications of small samples for generalization: Adjustments and rules of thumb. *Evaluation Review* (Special Issue: External Validity 2), 41(5), 472 – 505.
5. Kang, J., **Chan, W.**<sup>†</sup>, Kim, M.O., and Steiner, P.M. (2016). Practice of Causal Inference with the Propensity of Being Zero or One: Assessing the Effect of Arbitrary Cutoffs of Propensity Scores. *Communications for Statistical Applications and Methods*, 23(1), 1–20.

## UNDER REVIEW

**Chan, W.** Small Sample Adjustments for the Variance of Impact Parameters in Cluster Randomized Trials with Binary Outcomes

**Chan, W.** Bounding Approaches for Generalization. (Under Revision)

## WORKING PAPERS

Hedges, L.V. and **Chan, W.** The Impact of Downstream Clustering in Longitudinal Studies.

## PRESENTATIONS

### 2018

**Chan, W.** Bounding Approaches for Generalization. Paper presented at the Society for Research in Educational Effectiveness. Washington, D.C.

**Chan, W.** Monotonicity Assumptions in Deriving Bounds for Generalization. Paper to be presented at the American Educational Research Association Annual Meeting. New York, NY.

**Chan, W.** Presenting Quantitative Results to Interdisciplinary Audiences. Invited talk at the Interdisciplinary Studies in Human Development Lunch Meeting, Graduate School of Education, University of Pennsylvania. Philadelphia, PA.

### 2017

**Chan, W.** Bounding Approaches for Generalization. Paper presented at the Association for Public Policy Analysis & Management (APPAM) Conference. Chicago, IL.

**Chan, W.** The Relation Between Power for Continuous and Binomial Outcomes in Cluster Randomized Trials. Poster presented at the Joint Statistical Meetings. Baltimore, MD.

**Chan, W.** Bounds for Treatment Effects with Applications to Generalizability. Invited paper presented at the International Chinese Statistical Association Applied Statistics Symposium. Chicago, IL.

**Chan, W.** Small Area Estimates of the Average Treatment Effect with Applications to Generalizability. Paper presented at the American Educational Research Association Annual Meeting. San Antonio, TX.

**Chan, W.** Applications of Small Area Estimation to the Generalizability of Experiments with Small Sample Sizes. Paper presented at the Society for Research in Educational Effectiveness. Washington, D.C.

### 2016

**Chan, W.** Partial Identification of Treatment Effects: Applications to Generalizability. Paper presented at the Spring Meeting of the Society for Research on Educational Effectiveness. Washington, DC.

### 2015

Tipton, E., Hallberg, K., Hedges, L.V., & **Chan, W.** Implications of Small Samples for Generalization: Adjustments and Rules of Thumb. Paper presented at the Spring Meeting of the Society for Research on Educational Effectiveness. Washington, DC.

### 2014

Kang, J. & **Chan, W.** Practice of Causal Inference with the Propensity of Being Zero or One. Paper presented at the Joint International Chinese Statistical Association-Korean International Statistical Society Applied Statistics Symposium. Portland, OR.

## PROFESSIONAL EXPERIENCE

- 2012 – 2016 Graduate Research Assistant, *Institute for Policy Research, Northwestern University*
- 2014 – 2016 Statistical Consultant, *Feinberg School of Medicine, Northwestern University*
- 2005 – 2008 Research Assistant for Professor Alan Dye, *Department of Economics, Barnard College*
- 2005 – 2006 Research Assistant, *Department of Psychology, Barnard College*

## TEACHING (\* courses I proposed)

### University of Pennsylvania

- 2017 – 2018 Methods and Designs for Educational Research (ED 545) \*
- Spring 2017 Advanced Topics in Impact Evaluation (ED 871; Co-Instructor with Robert Boruch)
- 2016 – 2018 Introductory Statistics for Education Research (ED 667)

### Northwestern University

- Fall 2015 Introduction to Statistics (STAT 202), *Instructor*
- Spring 2015 Hierarchical Linear Models (STAT 356), *Teaching Assistant*
- 2014 – 2015 Introduction to Statistics (STAT 202), *Teaching Assistant*
- Winter 2014 Probability and Statistics (STAT 383), *Teaching Assistant*
- Fall 2014 Human Rights Statistics (STAT 370), *Guest Lecturer and Teaching Assistant*
- Fall 2013 Survey Sampling (STAT 325), *Guest Lecturer*
- Fall 2013 Introductory Statistics for the Social Sciences (STAT 210), *Teaching Assistant*

### Summer Institute in Randomized Trials for Established Researchers, Northwestern University

- Summer 2013, 2014 Consultant/Group Facilitator for break-out groups

### Teach for America

- 2008 – 2011 Teacher of Arithmetic and Algebra

### Columbia University

- Spring 2007 Introduction to Statistics (STAT W1111), *Teaching Assistant*

## PROFESSIONAL SERVICE

### University

- 2017 – Present *Committee Member*, Executive Committee, Graduate School of Education, University of Pennsylvania
- 2017 – Present *Faculty Representative*, Fellowship Committee, University of Pennsylvania
- 2017 – Present *Mentor*, Quantitative Methods Reading Group, Graduate School of Education, University of Pennsylvania
- 2017 – Present *Member*, Doctoral Seminar Planning Committee, Graduate School of Education, University of Pennsylvania
- 2015 – 2016 *Colloquium Organizer*, Institute for Policy Research Q-Center, Northwestern University
- 2014 – 2015 *Colloquium Organizer*, Graduate Women Across Northwestern, Northwestern University

**Conference**

- 2018 *Session Chair*, Society for Research on Educational Effectiveness Spring Meeting
- 2017 – 2018 *Proposal Reviewer*, American Educational Research Association, Quantitative Methods and Statistical Theory (Division D) and Research, Evaluation and Assessment in Schools (Division H)
- 2017 – 2018 *Proposal Reviewer*, Society for Research on Educational Effectiveness Spring Meeting
- 2017 *Discussant*, Association for Public Policy Analysis & Management (APPAM) Conference

**Referee**

- 2018 *Grant Reviewer*, Institute of Education Sciences, Social and Behavioral Education Research Scientific Panel
- 2016 *Proposal Reviewer*, Robert Wood Johnson Foundation
- Ad hoc Campbell Collaboration Systematic Reviews, *Journal of Research on Educational Effectiveness*, *Evaluation Review*, *Action in Teacher Education*

**PROFESSIONAL MEMBERSHIPS**

Society for Research on Educational Effectiveness (SREE)  
Campbell Collaboration Methods Group  
American Educational Research Association (AERA)  
American Statistical Association (ASA)  
Association for Public Policy Analysis & Management (APPAM)  
International Chinese Statistical Association (ICSA)