HONG, GUANGLEI

Ph.D., Professor

University of Chicago, Department of Comparative Human Development and the College
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Committee on Education
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EDUCATION

Ph.D. in Education, University of Michigan, Ann Arbor, Michigan, U.S., 2004
 Dissertation: Causal Inference for Multi-level Observational Data with Application to Kindergarten Retention

M.A. in Applied Statistics, University of Michigan, Ann Arbor, Michigan, U.S., 2002

M.A. in Comparative Education, East China Normal University, Shanghai, China, 1992

Graduate Certificate in American Studies, Johns Hopkins University-Nanjing University Center for Chinese-American Cultural Studies, Nanjing, China, 1991

B.A. in Educational Studies, East China Normal University, Shanghai, China, 1989

AWARDS

John Simon Guggenheim Memorial Foundation Fellowship, John Simon Guggenheim Memorial Foundation, 2021-2022

AERA Outstanding Reviewer, American Educational Research Association, 2013

William T. Grant Scholar Supplementary Mentoring Award, William T. Grant Foundation, 2010-2012

William T. Grant Scholars Award, William T. Grant Foundation, 2009-2014

NAEd/Spencer Postdoctoral Fellowship, National Academy of Education and Spencer Foundation, 2006-2007

AERA Mary Catherine Ellwein Outstanding Dissertation Award – Measurement and Quantitative Research Methodology, American Educational Research Association, Division D, 2005

Spencer Dissertation Fellowship for Research Related to Education, Spencer Foundation, 2003-2004

Joint Statistical Meetings Student Paper Competition Award, American Statistical Association, 2003

AERA Dissertation Grant, American Educational Research Association, 2002-2003

PROFESSIONAL EXPERIENCE

University of Chicago (Chicago, Illinois, U.S.)

Professor (July 2019-Present)
Inaugural Chair (June 2018-June 2021)
        Committee on Quantitative Methods in Social, Behavioral, and Health Sciences
Associate Professor with tenure (July 2012-June 2019)
Assistant Professor (July 2009-June 2012)
        Department of Comparative Human Development and the College
        Committee on Education
Faculty Associate (July 2015-Present)
        Department of Sociology
Visiting Scholar (September 2006-June 2007)
        Department of Sociology
    Courses:
    -   Applied Statistics in Human Development Research (required for doctoral students
        in the Department of Comparative Human Development)
    -   Introduction to Causal Inference
    -   Advanced Topics in Causal Inference
    -   Mediation, Moderation, and Spillover Effects
    -   Seminar: Causal Inference in Studies of Educational Interventions
    -   Seminar: Youth of the Great Recession
    -   Human Development Research Designs (required for the undergraduate major in
        Comparative Human Development and the undergraduate minor in Education and
        Society)
    -   Social Science Inquiry (college core sequence)

Ontario Institute for Studies in Education of the University of Toronto (Toronto, Ontario, Canada)

Assistant Professor (July 2004-June 2009)
        Department of Human Development and Applied Psychology
Faculty Associate (September 2003-June 2004)
        Department of Curriculum, Teaching, and Learning
    Courses:
    -   Causal Inference
    -   Path Analysis and Causal Inference
    -   Elements of Statistics (required for MA and PhD students)
    -   Introduction to Applied Statistics (required for MA and PhD students)
    -   Interpretation of Educational Research (required for MEd students)
    -   Multi-Level Modeling for Educational and Social Scientific Research

University of Michigan (Ann Arbor, Michigan, U.S.)
Graduate Student Research Assistant (June 1997-August 2002)
Graduate Student Instructor (Fall 2000, Fall 2001)

East China Normal University (Shanghai, China)
Lecturer, Assistant Professor (July 1992-July 1996)

RESEARCH GRANTS

Principal Investigator, "Causal Moderation and Mediation Analyses in Single-Site and Multisite Randomized Trials with Noncompliance," the Institute of Education Sciences (IES) Statistical and Research Methodology in Education Grants. USD 899,920, 2020-2023.

Principal Investigator, "Direct and Indirect Effects of Program Participation with an Instrumental Variable," the National Science Foundation (NSF) Methodology, Measurement, and Statistics Program, USD 450,000. (Declined)

Principal Investigator, "Methods for Investigating Causal Mechanisms in Multi-Site Experimental and Quasi-Experimental Studies," the National Science Foundation (NSF) Methodology, Measurement, and Statistics Program, USD 410,000, 2017-2021.

Co-Principal Investigator, "Drawing Connections to Close Achievement Gaps in Mathematics," the Institute of Education Sciences (IES) Education Research Program, USD 1,398,230, 2017-2021; supplementary award, $300,492, 2020-2022. (Princpal Investigator: Lindsey Richland, University of California-Irvine)

Co-Investigator, "Using Emerging Methods with Existing Data from Multi-site Trials to Learn *About* and *From* Variation in Educational Program Effects," Spencer Foundation, subcontract to the University of Chicago: USD 126,185, 2014-2017. (Principal Investigator: Howard Bloom, MDRC) (Note: Due to conflict of interest, my participation in this project was not supported by funding from the Spencer Foundation.)

Principal Investigator, "Weighting Methods for Mediation Analysis in Experimental and Quasi-Experimental Multilevel Data," the Institute of Education Sciences (IES) Statistical and Research Methodology in Education Grants, USD 850,000, 2012-2015.

Principal Investigator, "Causal inference methods for studying instruction effects on language minority students," William T. Grant Foundation Scholars Program, USD 350,000, 2009-2014; Supplementary Mentoring Award, USD 85,000, 2010-2012.

Principal Investigator, "Ratio-of-mediator-probability weighting method for estimating mediation effects," University of Chicago Startup Fund, USD 105,000, 2009-2014.

Principal Investigator, "Effects of within-class homogeneous ability grouping in early reading instruction," Social Sciences and Humanities Research Council of Canada Standard Research Grant, CAD 151,792, 2006-2009.

Principal Investigator, "Treatment effect estimation in cluster randomized experiments in the presence of partial implementation," University of Toronto Connaught New Staff Matching Grant, CAD 10,000, 2007-2008.

Principal Investigator, "Treatment effect estimation in cluster randomized experiments in the presence of partial implementation," National Academy of Education/Spencer Foundation Postdoctoral Fellowship, USD 55,000, 2006-2007.

Co-Principal Investigator, "Improving research on instruction: Models, designs, and analytic methods," Spencer Foundation Major Research Grant subcontract to the University of Toronto, USD 246,647, 2006-2009. (Principal Investigator: Dr. Stephen W. Raudenbush, University of Chicago, Department of Sociology)

Principal Investigator, "Implementation effect of kindergarten retention policy: A case study of causal inference for multi-level observational data," Social Sciences and Humanities Research Council of Canada Institutional Grant, CAD 1,700, 2005-2006

Principal Investigator, "Overall and differential effects of within-class homogeneous ability grouping in early reading instruction," Social Sciences and Humanities Research Council of Canada Institutional Grant, CAD 5,000, 2005-2006

Principal Investigator, "Causal Effects of Kindergarten Retention on Children's Cognitive Growth Mediated by Classroom Instruction," University of Toronto Connaught Startup Fund, CAD 10,000, 2004-2006.

TRAINING GRANT

Principal Investigator, "Collaborative Research: Cutting-Edge Quantitative and Computational Methods for STEM Education Research," the National Science Foundation ECR: BCSER. (Collaborating institution: Michigan State University; Principal Investigator: Ken Frank.) USD 999,828, 2020-2023.

PUBLICATIONS

(Note: Names in bold are doctoral students or postdoctal students who were under my supervision during the research collaboration.)

In North America

Book

Hong, G. (2015). *Causality in a social world: Moderation, mediation and spill-over*. West Sussex, UK: John Wiley & Sons, Ltd. (425 pages)

Edited Volume

Hong, G. (2012). *Journal of Research on Educational Effectiveness* special issue on the statistical approaches to studying mediator effects in education research. (Guest Editor)

Journal Articles

Hong, G., & **Chung, H.-J.** (online first). Assessing the impact of the Great Recession on the transition to adulthood. *Sociological Methods & Research*.
https://doi.org/10.1177/00491241221113871

Hong, G.*, Yang, F.*, & Qin, X. (2023). Posttreatment confounding in causal mediation studies: A cutting-edge problem and a novel solution via sensitivity analysis. *Biometrics, 79,* 1042-1056. (* equal first-authors)
http://doi.org/10.1111/biom.13705

Hong, Y., & Hong, G. (2021). Schools with test-based promotion: Effects on instructional time alloction and student learning in third grade. *AERA Open*, *7*(1), 1-15.

Hong, G., Yang, F., & Qin, X. (2021). Did you conduct a sensitivity analysis? A new weighting-based approach for evaluations of the average treatment effect for the treated. *Journal of the Royal Statistical Society, Series A: Statistics in Society*, 184(1), 227-254.

Qin, X., Deutsch, J., Hong, G. (2021). Revealing heterogeneity in complex mediation mechanisms: Two concurrent mediators. *Journal of Policy Analysis and Management*, *40*(1), 158-190.

Qin, X., Hong, G., Deutsch, J., & Bein, E. (2019). Multisite causal mediation analysis in the presence of complex sample and survey designs and non-random nonresponse. *Journal of the Royal Statistical Society, Series A: Statistics in Society*, Vol. *182*, Part 4, 1343-1370.

Hong, G., **Qin, X.**, & Yang, F. (2018). Weighting-based sensitivity analysis in causal mediation studies. *Journal of Educational and Behavioral Statistics*, *43*(1), 32-56.

Bein, E., Deutsch, J., Hong, G., Porter, K., **Qin, X.**, & Yang, C. (2018). Two-step estimation in RMPW analysis. *Statistics in Medicine*, *37*(8), 1304-1324.

Qin, X., & Hong, G. (2017). A weighting method for assessing between-site heterogeneity in causal mediation mechanism. *Journal of Educational and Behavioral Statistics*, *42*(3), 308-340.

Garrett, R., & Hong, G. (2016). Impacts of grouping and time on the math learning of language minority kindergartners. *Educational Evaluation and Policy Analysis*, *38*(2), 222-244.

Hong, G., **Deutsch, J.**, & Hill, H. D. (2015). Ratio-of-mediator-probability weighting for causal mediation analysis in the presence of treatment-by-mediator interaction. *Journal of Educational and Behavioral Statistics*, *40*(3), 307-340.

VanderWeele, T., Hong, G., Jones, S., & Brown, J. (2013). Mediation and spillover effects in group-randomized trials: A case study of the 4R's educational intervention. *Journal of the American Statistical Association*, *108*(502), 469-482.

Hong, G., & Nomi, T. (2012). Weighting methods for assessing policy effects mediated by peer change. *Journal of Research on Educational Effectiveness* special issue on the statistical approaches to studying mediator effects in education research, *5*(3), 261-289.

Hong, G. (2012). Marginal mean weighting through stratification: A generalized method for evaluating multi-valued and multiple treatments with non-experimental data. *Psychological Methods*, *17*(1), 44-60.

Hong, G., Corter, C., **Hong, Y.**, & Pelletier, J. (2012). Differential effects of literacy instruction time and homogeneous grouping in kindergarten: Who will benefit? Who will suffer? *Educational Evaluation and Policy Analysis*. *34*(1), 69-88.

Hong, G. (2010). Marginal mean weighting through stratification: Adjustment for selection bias in multilevel data. *Journal of Educational and Behavioral Statistics*, *35*(5), 499-531.

Chen-Bumgardner, X., Xu, F., Kim, N., Hong, G., Wang, Y. (2010). Effects of cross-language transfer on first language phonological awareness and literacy skills in Chinese children receiving English instruction. *Journal of Educational Psychology*, *102*(3), 712-728.

Hong, G., & **Hong, Y.** (2009). Reading instruction time and homogeneous grouping in kindergarten: An application of marginal mean weighting through stratification. *Educational Evaluation and Policy Analysis*, *31*(1), 54-81.

Hong, G., & Raudenbush, S. W. (2008) Causal inference for time-varying instructional treatments. *Journal of Educational and Behavioral Statistics*, *33*(3), 333-362.

Hong, G., & **Yu, B.** (2008). Effects of kindergarten retention on children's social-emotional development: An application of propensity score method to multivariate multi-level data. Special Section on New Methods in *Developmental Psychology*, *44*(2), 407-421.

Hong, G., & **Yu, B.** (2007). Early grade retention and children's reading and math learning in elementary years. *Educational Evaluation and Policy Analysis*, 29(4), 239-261.

Hong, G., & Raudenbush, S. W. (2006). Evaluating kindergarten retention policy: A case study of causal inference for multi-level observational data. *Journal of the American Statistical Association*, *101*(475), 901-910.

Hong, G., & Raudenbush, S. W. (2005). Effects of kindergarten retention policy on children's cognitive growth in reading and mathematics. *Educational Evaluation and Policy Analysis, 27*(3), 205-224.

Book Chapters

Hong, G., Raudenbush, S. W. (2013). Heterogeneous agents, social interactions, and causal inference. In the *Handbook of Causal Analysis for Social Research* (pp.331-352) edited by Stephen L. Morgan. NY: Springer.

Conference Proceedings

Qin, X., & Hong, G. (2016). Analyzing heterogeneous causal mediation effects in multi-site trials with application to the National Job Corps Study. In *JSM Proceedings*, Survey Research Methods Section. Alexandria, VA: American Statistical Association. pp.910-938.
(* Winner of JSM 2016 Student Paper Competition)

Qin, X., & Hong, G. (2014). Causal mediation analysis in multi-site trials: An application of ratio-of-mediator-probability weighting to the Head Start Impact Study. In *JSM Proceedings*, Social Statistics Section. Alexandria, VA: American Statistical Association, pp.912-926.

Hong, G., Nomi, T., & **Yu, B.** (2012). Prognostic score-based difference-in-differences. In *JSM Proceedings*, Social Statistics Section. Alexandria, VA: American Statistical Association, pp. 4952-4966.

Hong, G., **Deutsch, J.**, & Hill, H. (2011). Parametric and non-parametric weighting methods for estimating mediation effects: An application to the National Evaluation of Welfare-to-Work Strategies. In *JSM Proceedings*, Social Statistics Section. Alexandria, VA: American Statistical Association, pp.3215-3229.

Hong, G. (2010). Ratio of mediator probability weighting for estimating natural direct and indirect effects. In *JSM Proceedings*, Biometrics Section. Alexandria, VA: American Statistical Association, pp.2401-2415.

Hong, G., & Raudenbush, S. W. (2003). Causal Inference for Multi-level Observational Data with Application to Kindergarten Retention Study. In *JSM Proceedings*, Social Statistics Section. Alexandria, VA: American Statistical Association, pp.1849-1856.

Other Publications

Hong, G. (2017). A review of "Explanation in causal inference: Methods of mediation and interaction." *Journal of Educational and Behavioral Statistics*, *42*(4), 491-495.

Raudenbush, S. W., & Hong, G. (2017). Three mediation stories, three analytic strategies. *Association for Psychological Science Observer*. February 2017. (https://www.psychologicalscience.org/observer/three-mediation-stories-three-analytic-strategies#.WUhANdyQxEY)

Hong, G. (2016). Discussion on "perils and potentials of self-selected entry to epidemiological studies and surveys" by Niels Keiding and Thomas A. Louis. *Journal of the Royal Statistical Society, Serial A*, *179*(2), 348-349.

Hong, G. (2013). Covariate-informed parallel design: Discussion on "experimental designs for identifying causal mechanisms" by Imai, Tingley, and Yamamoto. *Journal of the Royal Statistical Society, Serial A, 176*, 35.

Hong, G., & Nomi, T. (2012). Rejoinder. *Journal of Research on Educational Effectiveness* special issue on the statistical approaches to studying mediator effects in education research, *5*(3), 299-302.

Hong, G. (2012). Editorial comments. *Journal of Research on Educational Effectiveness* special issue on the statistical approaches to studying mediator effects in education research, *5*(3), 213-214.

Statistical Software

MMWS (published in 2015)

RMPW (published in 2016)

(These stand-alone free software programs can be downloaded from http://hlmsoft.net/ghong/)

rmpw (published in 2018)
(https://cran.r-project.org/web/packages/rmpw/index.html)

MultisiteMediation (published in 2020)
(https://cran.r-project.org/web/packages/MultisiteMediation/index.html)

Working Papers

Hong, G., Deutsch, J., Kress, P., **Trinidad, J. E.**, & **Xu, Z.** (working paper). Leveraging multisite randomized trials for equitable evaluation of global and local effectiveness of organizations.

Chung, H.-J., & Hong, G. (working paper). A new solution to endogenous confounding in racial disparity decomposition.

Hong, G., Yang, F., Qin, X., & **Xu, Z.** (working paper). Average treatment effect under stochastic noncompliance due to interference.

Mesghina, A., Hong, G., & **Durrell, A.** (under review). Cooperative learning in university introductory statistics classrooms: A mixed methods assessment of students' perceptions, performance, and learning.

Hong, G., Yang, F., Qin, X., & **Liang, M.** (Working paper). Weighting-based sensitivity analysis for the average treatment effect: A reanalysis of the Project STAR data.

Bein, E., **Ilamaran, A.**, & Hong, G. (Working paper). Two-step Estimation of Natural Effects in Multisite RCTs Using Artificial Outcomes.

In East Asia (selective)

Hong, G. (1996). Can equality and quality be attained simultaneously?---An interview with Dr. Jeffrey Mirel. *Journal of Foreign Education Studies*, 2, 1-7.

Hong, G. (1996). Reconsidering "compulsory obligations" specified in the Compulsory Education Act. *Educational Reference*, 2, 31-33.

Hong, G. (1996). "Key school" system and "first-class education". *Educational Reference*(3), 11-14.

Hong, G. (1996). School-based curriculum development: A review of the literature. *Journal of Elementary and Secondary Education Abroad*, 3, 17-21.

Hong, G. (1995). Different features and a common trend: A comparative study of science education in the 20th century. *Forum on Modern Education*, 5, 34-43.

Hong, G. (1995). The evolution and transformation of modern curricula. *Comparative Education Review*, 4, 25-30.

Hong, G. (1995). Theory of Knowledge: An innovative course for knowledge-seekers. *Journal of Foreign Education Studies*, 5, 9-17.

Zhong, Q., Hong, G., & Wang, X. (1995). Curriculum theories and practices. In Mingyuan Gu (Ed.), *Encyclopedia of Education* (2nd ed., Vol. 1). Shanghai: Shanghai Education Press.

Hong, G. (1994). Basics, personality, and quality education. *Shanghai Educational Scientific Research*, 12, 15-20.

Hong, G. (1994). The role of general education courses in vocational-technical education programs. *Educational Research*, 9, 23-29.

Hong, G. (1994). The supply-and-demand relationship in the U.S. educational development: Graduates and resources. *Journal of Foreign Education Studies*, 1, 75-81.

Hong, G. (1993). The supply-and-demand relationship in the U.S. educational development: Students and teachers. *Journal of Foreign Education Studies*, 6, 44-51.

Hong, G. (1993). Learning to be in a society: Social studies curriculum and instruction in the United States. *Journal of Foreign Education Studies,* 5, 22-31.

Hong, G. (1992). Local control of education in the U.S.: Principles and systems of educational autonomy. *Journal of post-secondary teacher education,* 5, 34-44.

Hong, G., & Ye, L. (1992). Strategies and effects of a decade-long staff development program in the Zhongzhu School District. In the Collaborative Research Commission on the Educational Improvement in the Zhongzhu School District (Ed.), *Climbing up from the deep valley: Educational improvement in the Zhongzhu School District* . Beijing: Educational Science Press.

REFEREED PRESENTATIONS

Hong, G., Yang, F., & Qin, X. (September, 2022). *Post-treatment confounding in causal mediation studies: A cutting-edge problem and a novel solution via sensitivity analysis.* Paper presented at the Society for Research on Educational Effectiveness Fall Conference, Washington, DC.

Hong, G., Yang, F., & Qin, X. (August, 2021). *Post-treatment confounding in causal mediation studies: A cutting-edge problem and a novel solution via sensitivity analysis.* Paper presented at the Joint Statistical Meetings (virtual).

Hong, G., Yang, F., Qin, X., & Raudenbush, S. W. (August, 2020). *An imputation-based sensitivity analysis for post-treatment confounding in causal mediation studies*. Paper presented at the Joint Statistical Meetings (virtual).

Hong, G., Yang, F., & Qin, X. (July, 2019). *Did you conduct a sensitivity analysis? A new weighting-based approach to ATT evaluations*. Paper presented at the Joint Statistical Meetings, Denver, CO.

Hong, G., Yang, F., & Qin, X. (June, 2019). *Weighting-based sensitivity analysis for evaluating the average treatment effect*. Paper presented at the International Chinese Statistical Association Applied Statistics Symposium, Raleigh, NC.

Hong, G., Yang, F., & Qin, X. (March, 2019). *Weighting-based sensitivity analysis for ATE evaluation: A re-analysis of the Project STAR data*. Paper presented at the Society for Research on Educational Effectiveness Spring Conference, Washington, DC.

Yang, F., & Hong, G. (March, 2019). *Causal mediation analysis under partial compliance in randomized trials*. Paper presented at the Society for Research on Educational Effectiveness Spring Conference, Washington, DC.

Hong, G., Qin, X., & Yang, F. (August, 2018). *Weighting-based sensitivity analysis in causal mediation research*. Paper presented at the Joint Statistical Meetings, Vancouver, BC, Canada.

Hong, G., Qin, X., & Yang, F. (April, 2018). *Weighting-based sensitivity analysis in causal mediation research*. Paper presented at the annual meeting of the American Educational Research Association, New York City, NY.

Qin, X., Deutsch, J., & Hong, G. (April, 2018). *Unpacking complex mediation mechanisms and its heterogeneity between sites in a Job Corps evaluation.* Paper presented at the annual meeting of the American Educational Research Association, New York City, NY.

Hong, G., Yang, F., & Qin, X. (March, 2018). *Weighting-based approach to sensitivity analysis*. Paper presented at the Society for Research on Educational Effectiveness Spring Conference, Washington, DC.

Qin, X., Hong, G., Deutsch, J., & Bein, E. (March, 2018). *A template for multisite causal mediation analysis*. Paper presented at the Society for Research on Educational Effectiveness Spring Conference, Washington, DC.

Qin, X., Deutsch, J., & Hong, G. (November, 2017). *Unpacking between-site heterogeneity in complex mediation mechanisms in the Job Corps impact.* Paper presented at the Association for Public Policy Analysis and Management Annual Conference, Chicago, IL.

Hong, G., & Qin, X. (April, 2017). *Weighting-based sensitivity analysis in causal mediation studies*. Paper presented at the American Sociological Association Methods Section, Chicago.

Qin, X., Bein, E., Deutsch, J., Hong, G., & Vigil, A. (March, 2017). *Unpacking complex mediation mechanisms in the multisite Job Corps evaluation*. Paper presented at the Society for Research on Educational Effectiveness Spring Conference, Washington, DC.

Hong, G., Bein, E., Deutsch, J., Qin, X., & Vigil, A. (November, 2016). *Weighting methods for unpacking between-site heterogeneity in causal mechanisms*. Paper presented at the Association for Public Policy Analysis and Management Annual Conference, Washington, DC.

Qin, X., Hong, G. (April, 2016). *Investigating heterogeneous causal mediation mechanisms in multi-site trials*. Paper presented at the Annual Meeting of the American Educational Research Association, Washington, DC.

Hong, G., Bein, E., Deutsch, J., Qin, X., & Vigil, A. (March, 2016). *Weighting approach to multisite causal mediation analysis*. Paper presented at the Society for Research on Educational Effectiveness 2016 Spring Conference, Washington, DC.

Hong, G., Deutsch, J., & Hill, H. (November, 2015). *Weighting methods for causal mediation analysis*. Paper Presented at the Association for Public Policy Analysis and Management Annual Conference, Miami, FL.

Qin, X., Hong, G. (August, 2015). *Weighting methods for assessing mediation effect variation in multi-site trials with an application to the National Job Corps Study*. Paper presented at the Joint Statistical Meetings, Seattle, WA.

Gagné, J., & Hong, G. (April, 2015). *How crucial is ELL support in kindergarten and first grade for Spanish-speaking students' math learning?* Paper presented at the 2015 annual meeting of the American Educational Research Association, Chicago, IL.

Hong, Y., & Hong, G. (April, 2015). *Exploring the role of in-house mentoring in the study of Comprehensive Teacher Induction programs*. Paper presented at the 2015 annual meeting of the American Educational Research Association, Chicago, IL.

Qin, X., & Hong, G. (August, 2014). *Causal mediation analysis in multi-site trials: An application of ratio-of-mediator-probability weighting to the Head Start Impact Study*. Paper presented at the Joint Statistical Meetings, Boston, MA.

Qin, X., & Hong, G. (July, 2014). *Causal mediation analysis in multi-site trials: An application of ratio-of-mediator-probability weighting to the Head Start Impact Study*. Paper presented at the VI European Congress of Methodology, Utrecht, the Netherlands.

Qin, X., & Hong, G. (May, 2014). *Causal mediation analysis in multi-site trials: An application of ratio-of-mediator-probability weighting to the Head Start Impact Study*. Poster presented at the 2014 Atlantic Causal Inference Conference, Brown University, Providence, RI.

Qin, X., & Hong, G. (March, 2014). *Causal mediation analysis ini multi-site trials: An application of ratio-of-mediator-probability weighting to the Head Start Impact Study*. Paper presented at the Society for Research on Educational Effectiveness 2014 Spring Conference, Washington, DC.

Hong, G., Gagne, J., & West, A. (March, 2014). *Optimal sequence of ELL services in kindergarten and first grade for Spanish-speaking students*. Virtual poster presented at the Society for Research on Educational Effectiveness 2014 Spring Conference, Washington, DC.

Hong, G. (August, 2013). *Marginal mean weighting through stratification for identifying subppulation-specific optimal treatment sequence*. Paper presented at the Joint Statistical Meetings (invited session), Montreal, Quebec, Canada.

Hong, G., Nomi, T., & Yu, B. (March, 2013). *Prognostic score-based difference-in-differences strategy for education policy evaluation*. Symposium presented at the Society for Research on Educational Effectiveness 2013 Spring Conference, Washington, DC.

Hong, Y., & Hong, G. (March, 2013). *Making sense of the "zero effect" of comprehensive teacher induction programs*. Paper presented at the Society for Research on Educational Effectiveness 2013 Spring Conference, Washington, DC.

Hong, G., Nomi, T., & Yu, B. (July, 2012). *Prognostic score-based difference-in-differences strategy applied to interrupted time series data*. Paper presented at the Joint Statistical Meetings (invited session), San Diego, CA.

Yu, B., & Hong, G. (April 2012). *Evaluation of variable selection and adjustment procedures in relation to propensity scores and prognostic scores*. Paper presented at the Annual Meeting of the American Educational Research Association, Vancouver, British Columbia, Canada.

Hong, Y., & Hong, G. (April 2012). *Test-based retention, teacher expectations, and student academic performance*. Paper presented at the Annual Meeting of the American Educational Research Association, Vancouver, British Columbia, Canada.

Hong, G., & Nomi, T. (March, 2012). *Weighting methods for assessing policy eEffects mediated by peer change*. Paper presented at the Society for Research on Educational Effectiveness spring conference, Washington, DC, U.S.

Yu, B., & Hong, G. (March, 2012). *Evaluation of model specification, variable selection, and adjustment methods in relation to propensity scores and prognostic scores in multilevel data*. Paper presented at the Society for Research on Educational Effectiveness spring conference, Washington, DC, U.S.

Garrett, R., & Hong, G. (March 2012). *Impacts of kindergarten classroom organization on mathematics learning of English learners*. Paper presented at the Society for Research on Educational Effectiveness spring conference, Washington, DC, U.S.

Hong, G., Deutsch, J., & Hill, H. (Auguest, 2011). *Weighting methods for estimating mediation effects: An application to the National Evaluation of Welfare-to-Work Strategies*. Paper presented at the Joint Statistical Meetings (topic contributed session), Miami Beach, FL.

Yu, B., & Hong, G. (August, 2011). *Evaluation of Alternative Propensity Score Based Causal Inference Approaches*. Poster presented at the Joint Statistical Meetings, Miami Beach, FL.

Hong, G., & Nomi, T. (March, 2011). *Change in peer ability as a mediator and moderator of the algebra-for-all policy effects*. Paper presented at the Society for Research on Educational Effectiveness spring conference, Washington, DC, U.S.

VanderWeele, T., Hong, G., & Jones, S. (March, 2011). *Mediation and spillover effects in group-randomized trials: A case study of the 4R's educational intervention*. Paper presented at the Society for Research on Educational Effectiveness spring conference, Washington, DC, U.S.

Hong, G. (August, 2010). *Ratio of Mediator Probability Weighting for Estimating Natural Direct and Indirect Effects*. Paper presented at the Joint Statistical Meetings (invited session), Vancouver, British Comlumbia, Canada.

Yu, B., & Hong, G. (August, 2010). *Causal Inference in Multilevel Data Through Adjustment for Prognostic Scores in Addition to Propensity Scores*. Poster presented at the Joint Statistical Meetings, Vancouver, British Comlumbia, Canada.

Hong, G. (May, 2010). *A comparison between marginal mean weighting through stratification and inverse-probability-of-treatment weighting*. Paper presented at the Annual Meeting of the American Educational Research Association, Denver, Colorado, U.S.

Hong, G., Pelletier, J., Hong, Y., & Corter, C. (March, 2010). *Homogeneous Grouping and Class Management*. Paper presented at the annual meeting of the Society for Research on Educational Effectiveness, Washington, DC, U.S.

Yu, B., & Hong, G. (August, 2009). *Variable selection for propensity score models and prognostic score models*. Poster presented at the Joint Statistical Meetings, Washington, DC, U.S.

Koyama, E., Hong, G., & Geva, E. (May, 2009). *How oral English proficiency and home literacy moderat the effectiveness of reading instruction for LM and L1 children*. Paper presented at the International Language and Reading Comprehension for Immigrant Children Conference, Toronto, Ontario, Canada.

Hong, G., Corter, C., Hong, Y., & Pelletier, J. (April, 2009). *Reading instruction time and within-class homogeneous grouping in kindergarten: Who will benefit? Who will suffer?* Paper presented at the Annual Meeting of the American Educational Research Association, San Diego, California, U.S.

Koyama, E., Hong, G., & Geva, E. (April, 2009). *How home literacy and oral English proficiency moderat the effectiveness of reading instruction for LM and L1 children*. Paper presented at the Biennual Meeting of the Society for Research in Child Development, Denver, Colorado, U.S.

Yu, B., & Hong, G. (August, 2008). *Variable selection for propensity score models*. Poster presented at the Joint Statistical Meetings, Denvor, Colorado, U.S.

Hong, G. (March, 2008). *Marginal mean weighting through stratification: Adjustment for selection bias in multi-level data*. Paper presented at the Annual Meeting of the American Educational Research Association, the New York city, New York, U.S.

Hong, G., & Hong, Y. (March 2008). *Reading instruction time and Homogeneous grouping in kindergarten: An application of the marginal mean weighting method*. Paper presented at the Annual Meeting of the American Educational Research Association, the New York city, New York, U.S.

Hong, G., & Yu, B. (March 2008). *Early grade retention and children's reading and math learning in elementary years*. Paper presented at the Annual Meeting of the American Educational Research Association, the New York city, New York, U.S.

Hong, G. (April 2007). *Policy effect on compliers in multi-level quasi-experimental designs*. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, Illinois, U.S.

Hong, G., & Yu, B. (March 2007). *Effects of kindergarten retention on children's social-emotional development*. Paper presented at the Biennial Meeting of the Society for Research in Child Development, Boston, Massachusetts, U.S.

Hong, G. (April 2006). *Multi-level experimental designs and quasi-experimental approximations for studying intervention implementation as a mediator*. Paper presented at the Annual Meeting of the American Educational Research Association, San Francisco, California, U.S.

Hong, G., & Raudenbush, S. W. (April 2005). *Potential-outcomes causal framework for multi-level data*. Paper presented at the Annual Meeting of the American Educational Research Association, Montreal, Quebec, Canada.

Hong, G., & Raudenbush, S. W. (April 2005). *Causal effects of kindergarten retention on children's reading and math learning*. Paper presented at the Biennial Meeting of the Society for Research in Child Development, Atlanta, Georgia, U.S.

Hong, G., & Raudenbush, S. W. (April 2004). *Evaluating kindergarten retention policy: Causal inference for multi-level observational data*. Paper presented at the Annual Meeting of the American Sociological Assocation Methodology Section, Ann Arbor, Michigan, U.S.

Hong, G., & Raudenbush, S. W. (April 2004). *Causal inference for multi-level observational data: Implications for educational policy analysis and program evaluation*. Paper presented at the Annual Meeting of the American Educational Research Association, San Diego, California, U.S.

Hong, G., & Raudenbush, S. W. (2003). *What if these kindergartners were not retained? Causal effects of kindergarten retention versus promotion on children's literacy growth*. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, Illinois, U.S.

Hong, G. (November 2002). *Multiple theoretical perspectives on adopting and sustaining comprehensive school reform innovations*. Symposium presented at the University Council for Educational Administration Convention, Pittsburgh, Pennsylvania, U.S.

Hong, G. (April 2002). *Teacher learning through mutual observations: implications for organizational change*. Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans, Lousianna, U.S.

Hong, G., Raudenbush, S. W., & Rowan, B. (April 2002). *Instructional time, content difficulty, and disadvantaged students' academic growth*. Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans, Lousianna, U.S.

Raudenbush, S. W., & Hong, G. (April 2002). *Re-conceptualizing instructional treatments and modeling instructional regime effects on student learning*. Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans, Lousianna, U.S.

DeWoskin, J., & Hong, G. (April 2000). *East meets west in 303: A high school teacher's story about teacher learning in curriculum development*. Paper presented at the First Conference on Internationalization of Curriculum Studies, Baton Rouge, Lousianna, U.S.

Hong, G. (1997). *Multiple theoretical perspectives on school choice in the United States.* Paper presented at the Fifth International Conference on Chinese Education Approaching the 21st Century, Hong Kong, China.

Hong, G. (1995). *The dilemma of school choice in a universal compulsory educational system.* Paper presented at the Annual Meeting of the Shanghai Educational Association, Shanghai, China.

Hong, G. (1993). *Evolution of science education in the 20th century.* Paper presented at the Annual Meeting of the Chinese Society for International and Comparative Education Studies, Beijing, China.

INVITED PRESENTATIONS

Hong, G. (April 13, 2023). *Leveraging national data to investigate the causal impact of a global crisis on inequality.* Invited Presentation at the American Educational Research Association annual meeting, Advanced Studies of National Databases Significant Interest Group.

Hong, G. (April 5, 2023). *Post-treatment confounding in causal mediation studies: A cutting-edge problem and a novel solution.* Invited presentation at the University of Chicago Department of Political Science Quantitative Methods Workshop.

Hong, G. (November 11, 2022). *Assessing the impact of the Great Recession on the transition to adulthood.* Invited presentation at Pennsylvania State University Center for Social Data Analytics.

Hong, G. (October 21, 2022). *What if Martin Luther King's dream would come true?* Invited presentation at the University fo Chicago Causal Inference Reading Group.

Hong, G. (August 25, 2022). *Assessing the impact of the Great Recession on the transition to adulthood.* Invited presentation at Peking University Quantitative Social Sciences Workshop.

Hong, G. (June 1, 2022). *Assessing the impact of the Great Recession on the transition to adulthood.* Invited presentation at East China Normal University Department of Educational Psychology.

Hong, G. (May 23, 2022). *Post-treatment confounding in causal mediation studies: A cutting-edge problem and a novel solution.* Invited presentation at the University of Chicago Statistics Colloquium.

Hong, G. (January 8, 2022). *Commentary on the research priorities of the Economics of Education Laboratory.* Invited presentation at the inaugural ceremony of the Economics of Education Laboratory, East China Nornal University.

Hong, G., Frank, K., Sheng, Y., Raudenbush, S. W., & Torphy, K. (February 25, 2021). *Cutting-edge quantitative and computational methods for STEM education research.* AERA-ICPSR PEERS Workshop (attended by at least 1,600 people virtually).

Hong, G. (December 4, 2020). *Post-treatment confounding in causal mediation studies: A cutting-edge problem and a novel solution.* Invited inaugural presentation at the UCLA

Graduate School of Education and Information Studies Human Development and Psychology (HDP) and Social Research Methodology (SRM) Joint Colloquium Series.

Hong, G. (October 29, 2019). *Weighting-Based Sensitivity Analysis for Evaluating the ATT, the ATE, and the Mediated Effects*. Invited presentation at the Department of Applied and Computational Mathematics and Statistics, the University of Notre Dame, South Bend, ID.

Hong, G. (October 15, 2019). *How shaky was the causal conclusion? Weighting-based sensitivity analysis*. Invited presentation at the Education Workshop, University of Chicago, Chicago, IL.

Hong, G. (April 23, 2019). *Weighting-based sensitivity analysis for causal mediation studies*. Invited presentation to the Prevention Science and Methodology Group. (https://vimeo.com/334979198)

Hong, G. (March 28, 2019). *Impacts of grouping and time on the math learning of language minority kindergartners*. Invited presentation at the Home and School Influences on Early Learning Conference, University of Chicago Hong Kong Center. Hong Kong, China.

Hong, G. (July 20, 2018). *Unpacking between-site heterogeneity in complex causal mechanisms: The National Job Corps Study*. Invited presentation at Peking University, Beijing, China.

Hong, G. (July 5, 2018). *Unpacking between-site heterogeneity in complex causal mechanisms: The National Job Corps Study*. Invited presentation at Shanghai University, Shanghai, China.

Hong, G. (April 11, 2018). *Did you conduct a sensitivity analysis? A weighting-based approach with applications*. Invited presentation at the Department of Public Health Sciences Colloquium, University of Chicago, Chicago, IL.

Hong, G. (Nov 15, 2017). *Unpacking between-site heterogeneity in complex causal mechanisms: The National Job Corps Study*. Invited presentation at the Computational Social Science Workshop, University of Chicago, Chicago, IL.

Hong, G., & Qin, X. (May 5, 2017). *Weighting-based sensitivity analysis in causal mediation studies*. Invited presentation at the Quantitative Methods in Education, Health, and Social Sciences (QMEHSS) Workshop, University of Chicago. Chicago, IL.

Hong, G., Bein, E., Deutsch, J., Porter, K., Qin, X., & Vigil, A. (December 15, 2016). *Revealing heterogeneity in complex mediation mechanisms: Two concurrent mediators*. Invited presentation at the third full team meeting of the Spencer Foundation Project on Learning about and from Variation in Program Impacts. Washington DC.

Hong, G. (October 27, 2016). *Causality in a Social World: Moderation, Mediation, and Spill-over*. Invited webinar for the American Statistical Association Mental Health Statistics Section.

Hong, G. (August 1, 2016). *Causality in a Social World: Moderation, Mediation, and Spill-over*. Invited round table discussion at the Joint Statistical Meetings. Chicago, IL.

Hong, G. (June 21, 2016). *Moderation, Mediation, and Spillover Effects*. Invited presentation at the East China Normal University, Division of Educational Science. Shanghai, China.

Hong, G., Deutsch, J., Bein, E., Porter, K., Qin, X. (December 18, 2015). *Weighting approach to multisite causal mediation analysis*. Invited presentation at the second full team meeting of the Spencer Foundation Project on Learning about and from Variation in Program Impacts. New York City, NY.

Hong, G., Deutsch, J., Bein, E., Porter, K., Qin, X., & Yang, C. (June 4, 2015). *Weighting methods for causal mediation analysis*. Invited presentation at the first full team meeting of the Spencer Foundation Project on Learning about and from Variation in Program Impacts. New York City, NY.

Bein, E., Hong, G., Qin, X., & Yang, C. (May 16, 2015). *Two-step estimation in causal mediation analysis*. Invited presentation at the Quantitative Methods in Education, Health, and Social Sciences (QMEHSS) Workshop, University of Chicago. Chicago, IL.

Hong, G. (December 9, 2014). *Peeking into "the black box" in educational policy analysis*. Invited presentation at the Harvard Graduate School of Education. Cambridge, MA.

Hong, G. (May 2, 2014). *RMPW extensions for causal mediation analysis*. Invited presentation at Carnegie Mellon University Statistics Department. Pittsburgh, PA.

Hong, G. (May 1, 2014). *How interventions work: New weighting methods for causal mediation analysis*. Invited presentation at the Carnegie Mellon and RAND Traineeships (CMART) in Methodology and Interdisciplinary Research program. Pittsburgh, PA.

Hong, G. (March 4, 2014; April 29, 2014). *New weighting methods for causal mediation analysis*. Invited presentation to the Prevention Science and Methodology Group.

Hong, G. (October 9, 2013). *New weighting methods for causal mediation analysis*. Invited presentation at the Workshop on "Issues and Options for Learning from Variation in Program Effects" sponsored by the William T. Grant Foundation and the University of Chicago Committee on Education. Chicago, Illinois, U.S.

Hong, G. (May 17, 2013). *New weighting methods for causal mediation analysis*. Invited presentation at the University of California-Los Angeles Advanced Quantitative Methods Program. Los Angeles, California, U.S.

Hong, G. (May 11, 2013). *Mediational models with spillovers in education settings*. Invited presentation at the Causality in Political Networks Conference. The University of Chicago, Chicago, Illinois, U.S.

Hong, G. (April 17, 2013). *Ratio-of-mediator-probability weighting for causal mediation analysis*. Invited presentation at Northwestern University Institute for Policy Research. Evanston, Chicago, U.S.

Garrett, R. & Hong, G. (December 11, 2012). *Impacts of Grouping and Time on Mathematics Learning of Language Minority Kindergartners*. Invited presentation at the University of Chicago Education Workshop.

Hong, G., Nomi, T., & Yu, B. (November 2, 2012). *Prognostic score-based difference-in-differences strategy*. Invited presentation at the University of Chicago Quantitative Research Methods in Education, Health, and Social Sciences. Chicago, Illinois, U.S.

Hong, G. (October 12, 2012). *New methods for causal mediation analysis*. Invited presentation at the University of Wisconsin-Madison Interdisciplinary Training Program in Education Sciences. Madison, Wisconsin, U.S.

Hong, G. (May 24, 2012). *A probabilistic Causal Model for Mediation with Interference*. Invited presentation at the Atlantic Causal Inference Conference. Johns Hopkins University, Baltimore, Maryland, U.S.

Hong, G. (April 6, 2012). *Parametric and non-parametric weighting methods for mediation analysis: An application to the national evaluation of welfare-to-work strategies*. Invited presentation to the Childhood Intervention Methodology Working Group. University of Chicago, Chicago, Illinois, U.S.

Hong, G. (March 14, 2012). *Covariate-informed parallel design: Comments on "experimental designs for identifying causal mechanism" by Imai, Tingley, and Yamamoto*. Invited discussion at the Royal Statistical Society Ordinary Meeting. London, U.K.

Hong, G. (June 23, 2011). *English language learners: Experience and effects*. Invited presentation at the 29th Annual William T. Grant Scholars' Retreat, Aspen, Colorado, U.S.

Hong, G. (May 11, 2011). *Is homogeneous grouping beneficial or harmful in kindergarten? For whom and when?* Invited presentation at Peking University, Beijing, China

Hong, G. (Oct 4, 2010). *Is homogeneous grouping beneficial or harmful in kindergarten? For whom and when?* Invited presentation at the University of Chicago Education Workshop, Chicago, Illinois, U.S.

Hong, G., Jones, S., VanderWeele, T. (Jan 13, 2010). *Mediation and spillover effects in group-randomized trials: A case study of the 4Rs program*. Invited presentation at the William T. Grant/Spencer Foundations Grantee Meeting. Washington DC, U.S.

Hong, G. (March 24, 2009). *Effects of reading instruction time and homogeneous grouping in kindergarten: An application of marginal mean weighting through stratification*. Invited presentation at the Katholieke Universitiet Leuven, Faculty of Psychology and Educational Sciences, Leuven, Belgium.

Hong, G. (May 6, 2008). *Reading instruction time and homogeneous grouping in kindergarten: An application of the marginal mean weighting method*. Invited presentation at the University of Chicago Education Workshop, Chicago, Illinois, U.S.

Hong, G. (April 28, 2008). *Design and analytic approaches to studies of instructional effectiveness*. Invited presentation at the First Annual University of Michigan Conference on Education Policy Research, Ann Arbor, Michigan, U.S.

Hong, G. (March 10, 2008). *Marginal mean weighting method for evaluating concurrent multi-valued instructional treatments*. Invited presentation at the Northwestern University, School of Education and Social Policy, Evanston, Illinois, U.S.

Hong, G. (January 14, 2008). *Effects of kindergarten retention on children's cognitive and social-emotional development*. Invited presentation at the University of Chicago, Department of Comparative Human Development, Chicago, Illinois, U.S.

Hong, G. (December 11, 2007). *Reading instruction time and homogeneous grouping in kindergarten: An application of the marginal mean weighting method*. Invited presentation at the University of Michigan, School of Education, Ann Arbor, Michigan, U.S.

Hong, G. (October 19, 2007). *Marginal mean weighting method for evaluating concurrent multi-valued instructional treatments*. Invited presentation at the 2007 Annual Meeting of the National Academy of Education Postdoctoral Fellows Forum, Washington DC, U.S.

Hong, G. (October 12, 2007). *Marginal mean weighting with an application to evaluating the effects of concurrent instructional treatments*. Invited presentation at the University of Wisconsin-Madison Interdisciplinary Training Program in Education Sciences, Madison, Wisconsin, U.S.

Hong, G., & Hong, Y. (October 5, 2007). *Reading instruction time and homogeneous grouping in kindergarten: An application of the marginal mean weighting method*. Invited presentation at the New Investigators Network Meeting, Canadian Research Institute for Social Policy, University of New Brunswick, Fredericton, NB, Canada

Hong, G. (April 25, 2007). *Evaluating kindergarten retention policy: A case study of causal inference for multi-level observational data*. Invited presentation at the University of Michigan Causal Inference Symposium, Ann Arbor, Michigan, U.S.

Hong, G. and Yu, B. (April 24, 2007). *Effects of kindergarten retention on children's cognitive and social-emotional development*. Invited presentation at the Center for Human Potential and Public Policy, Harris School of Public Policy Studies, University of Chicago, Chicago, Illinois, U.S.

Hong, G. (January 30, 2007). *Marginal mean weighting adjustment for selection bias*. Invited presentation at the Education Workshop, University of Chicago, Chicago, Illinois, U.S.

Hong, G. and Yu, B. (January 25, 2007). *Effects of kindergarten retention on children's cognitive growth and social-emotional development*. Invited presentation at the Joint Developmental Science Program, University of Toronto, Toronto, Ontario, Canada

Hong, G. (November 13, 2006). *Treatment Effect Estimation in Cluster Randomized Experiments in the Presence of Partial Implementation*, National Opinion Research Center at the University of Chicago Education Group Lunch Talk, Chicago, Illinois, U.S.

Hong, G. and Raudenbush, S. W. (September 21, 2006). *Evaluating kindergarten retention policy: A case study of causal inference for multi-level observational data*. Invited presentation at the Department of Statistics, University of Toronto, Toronto, Ontario, Canada

Hong, G. and Yu, B. (May 15, 2006). *Kindergarten Retention and Educational Outcomes*. Invited presentation at the "Public policies and child well-being conference," Andrew Young School of Policy Studies, Georgia State University, Stone Mountain Park, Georgia, U.S.

Hong, G. and Raudenbush, S. W. (February 27, 2006). *Evaluating kindergarten retention policy: A case study of causal inference for multi-level observational data*. Invited presentation at the Department of Statistics, University of Chicago, Chicago, Illinois, U.S.

Hong, G. (January 20, 2006). *Evaluating kindergarten retention policy: A case study of causal inference for multi-level observational data*. Invited presentation at the Measurement, Evaluation, and Assessment Program, University of Connecticut, Storrs, Connecticut, U.S.

Hong, G. (January 20, 2006). *Causal effects of kindergarten retention on children's cognitive growth in reading and mathematics*. Invited presentation at the Neag School of Education, University of Connecticut, Storrs, Connecticut, U.S.

Hong, G. (November 19, 2005). *Causal effects of kindergarten retention on children's cognitive growth in reading and mathematics*. Colloquium presentation at the Human Development and Applied Psychology Department, Ontario Institute for Studies in Education of the University of Toronto, Toronto, Ontario, Canada.

Hong, G. (June 15, 2005). *Applications of causal inference theories and methods to multi-level, longitudinal observational data: Kindergarten retention and intensive math instruction*. Invited presentation at "Raising and leveling the bar: A collaborative research initiative on children's learning, behavioural, and health outcomes – all investigators meeting," Canadian Research Institute for Social Policy, University of New Brunswick, St. Andrew's, New Brunswick, Canada.

Hong, G. (June 6, 2005). *Evaluating kindergarten retention policy: A case study of causal inference for multi-level observational data*. Invited presentation at the School of Education, Stanford University, Palo Alto, California, U.S.

Hong, G. (May 31, 2005). *Causal effects of kindergarten retention on children's reading and math learning*. Invited presentation at the Summer Programme in Data Analysis: SPIDA 2005, York University, Toronto, Ontario, Canada.

Hong, G. (October 7, 2004). *Causal inference for multi-level observational data with application to kindergarten retention*. Invited presentation at the American Educational Research Association Doctoral Conference. Washington, D.C., U.S.

Raudenbush, S. W., & Hong, G. (December 4, 2002). *Causal inference in educational research*. Invited presentation at colloquium for the Combined Program in Education and Psychology (CPEP), University of Michigan, Ann Arbor, Michigan, U.S.

Raudenbush, S. W., Hong, G., & Rowan, B. (March 11, 2002). *Studying the causal effects of instruction with application to primary-school mathematics.* Invited presentation at the Research Seminar II: Instructional and Performance Consequences of High-poverty Schooling, National Center for Educational Statistics, Washington, D.C., U.S.

GRADUATE STUDENT AND POSTDOC SUPERVISION

POSTDOCTORAL SCHOLARS

Youngjo Im (July 2014 to June 2015)
Yihua Hong (January 2012 to June 2015)
Bing Yu (February 2012 to January 2013)
Rachel Garrett (July 2011 to July 2013)

DOCTORAL THESES (Committee Chair or Co-Chair)

University of Chicago

Xu Qin (Final oral examination date: April 24, 2018)
"Causal mediation analysis in multi-site trials"
(Winner of an American Statistical Association Student Paper Award in 2016; recipient of a National Academy of Education/Spencer Dissertation Fellowship in 2017; winner of an American Educational Research Association Division D Outstanding Dissertation Award in 2019; recipient of the William E. Henry prize for the best PhD dissertation in the Department of Comparative Human Development)

Sarah Cashdollar (Final oral examination date: May 7, 2021)
"Career and technical education in the era of college and career readiness: influences on youth postsecondary aspirations in 'Oaksburg, USA'"
(Recipient of a predoctoral research grant from the Hymen Milgrom Supporting Organization)

Jose Eos Trinidad (Final oral examination data: March 27, 2023)
"Organizational networks and school improvement: Local state-society collaborations in the national spread of dropout prediction data systems"
(Recipient of a National Academy of Education/Spencer Dissertation Fellowship in 2022)

Ontario Institute for Studies in Education of the University of Toronto

Emiko Koyama (Final oral examination date: July 14, 2015)
"Evaluating the short- and long-term impacts of didactic, developmental and combined approaches to kindergarten teaching in low and high SES classrooms"

Yihua Hong (Final oral examination date: Nov 21, 2011)
"Teacher matters: Re-examining the effects of grade-3 test-based retention policy" (Winner of an American Educational Research Association Dissertation Grant)

Bing Yu (Final oral examination date: Nov 18, 2011)
"Variable selection and adjustment in relation to propensity scores and prognostic scores: From single-level to multilevel data"

DOCTORAL THESES (Committee Member)

University of Chicago

Almaz Mesghina (2021)
"From distress to "eustress": contextual and cognitive factors in the arousal-performance relationship"

Alexis Howard (2019)

"Exploring the experience of disabilities of self-care among aging Latinos in the United States"

Emily Lyons (2019)

"Stereotype threat and evaluative pressure in the classroom: Impacts of stereotype threat and evaluative pressure during cognitively-taxing mathematics instruction"

Kristina Lynn Pagel (2019)

"Sex differences in heart disease in older adults: Inflammatory mechanisms and psychosocial factors"

Keisha Harris (2018)

"Somos Uma Salada de Fruta: Adolescent achievement in Brazilian and Colombian structures of opportunity"

Marshall Jean (2016)

"Can you work your way up? - Ability grouping and the development of academic engagement"

Joseph Tennant (2015)

"The role of harm in judgments of moral violations in two American sub-cultures and their implications for moral psychological research"

Ontario Institute for Studies in Education of the University of Toronto

Sejal Patel (2009)

"Integrated early-childhood program participation, parenting, and child development outcomes: The Toronto First Duty Project"

Mark Bartoshuk (2008)

"Minority coping: The role of interpersonal factors in gay men's experience of minority stress and depression"

Fataneh Farnia (2006)

"Modeling growth in reading fluency and reading comprehension in EL1 and ESL children: A longitudinal, individual growth curve analysis from first to sixth grade"

MASTER'S THESES

University of Chicago

Amanda "Andy" Peters (2021)

"Local immigration enforcement and violent crime"

Ryan Wang (2020)

"The community heterogeneity of earnings from flexible work"

Lucero Vargas (2019)

"The effect of non-cognitive skills on academic performance: Evidence from Mexico"

Xiangyu Tao (2017)

"Rethinking alcohol consumption and marital quality among older adults: Three propensity score analyses"

Ontario Institute for Studies in Education of the University of Toronto

Marija Glisic (2009)

"Effectiveness of school policies prohibiting adolescent alcohol and drug use"

Natasha Jamal (2009)

"Mexican-American parents' working hours, parental involvement, and adolescent academic achievement"

Sara Rattanasithy (2008)

"Teacher education effects on student academic achievement"

TRIAL RESEARCH PAPERS

Ashley Uphoff (2023)

"Pre-pandemic student-teacher trust predicted student attendance during COVID-19 remote learning"

Alexander Koenig (2022)

"Violence, equity, and community voice in Chicago Public Schools' reimagining of school safety"

Jose Eos Trinidad (2021)

"Social consequences and context of adverse childhood experiences"

Johan Rocha (2020)

"Ties in transition: Influence of management protocol on social networks and social capital in immigrant shelter near Southern Mexico"

Arvind Ilamaran (2019)

"Impact of poly-victimization on academic aspirations, outcomes and asipiration-achievement gap among middle adolescents in Chicago: An exploration of causal mechanisms based on the Project on Human Development in Chicago Neighborhoods"

Mengyuan Liang (2019)

"Why are women higher achieved and lower paid than men: Evidence from the Baccalaureate and Beyond Longitudinal Study 1993 cohort"

Sarah Cashdollar (2017, second reader)

"The role of student-teacher racial (mis)match in shaping students' perceptions and responses to teacher authority"

Xu Qin (2014)

"Causal mediation analysis in multi-site trials: An application of ratio-of-Mediator-probability weighting to the Head Start Impacts Study"

Hae Min Byeon (2013)
"Silenced in the foreign language: Language minority students' development of social competence"

Cassie Freeman (2012, second reader)
"Using what we know: Instances of spontaneous analogical knowledge transfer during higher order thinking"

RESEARCH ASSISTANTS

Yihua Hong, Bing Yu, Emiko Koyama, Mahshid Azimi, Marija Glisic, Jonah Deutsch, Andrew West, Joshua Gagne, Xu Qin, Arvind Ilamaran, Mengyuan Liang, Almaz Mesghina, Ha-Joon Chung, Zhengyan Xu

TEACHING ASSISTANTS

Barnabas Emenogu, Bing Yu, Emiko Koyama, Alan Huang, Marshall Jean, Jonah Deutsch, Joseph Tennant, Hae Min Byeon, Xu Qin, Kristina Lynn Pagel, Rebecca Hinze-Pifer, Rebecca Rose Frausel, Nick Judd, Ling Chen, Michael Park, Sadiq Patel, Alexis Howard, Emily Lyons, Almaz Mesghina, Arvind Ilamaran, Yudong Zhang, Simon Shachter, Mengyuan Liang, Karlyn Gorski, Aron Marie, Xue Han, Gyamfuah Sarfo-Mensah, Lily Ye, Eliot Weinstein, Ellen Hsieh, Zijun Zheng, Johan Rocha, Jose Eos Trinidad, Seung Chul Lee, Kaya Borlase

PROFESSIONAL SERVICE

EDITOR and REVIEWER

- Guest Editor for the *Journal of Research on Educational Effectiveness* special issue on the statistical approaches to studying mediator effects in education research, Volume 5, Number 3, July 2012

- Editorial Board Member of *Educational Evaluation and Policy Analysis*, *Effective Education*, *Journal of Educational and Behavioral Statistics*, *Journal of Research on Educational Effectiveness*

- Referee for education journals: *American Educational Research Journal*, *American Journal of Education*, *Canadian Journal of Education*, *Educational Evaluation and Policy Analysis*, *Effective Education*, *Elementary School Journal*, *Journal of Advanced Academics*, *Journal of Research on Educational Effectiveness*, *Journal of Research in Mathematics Education*, *Review of Educational Research, Studies in Educational Effectiveness*

- Referee for statistics journals: *Journal of the American Statistical Association, Journal of Educational and Behavioral Statistics*, *Journal of the Royal Statistical Society, Statistical Methods and Applications*

- Referee for psychology journals: *Developmental Psychology*, *Journal of Educational Psychology*, *Multivariate Behavioral Research*, *Psychological Methods*

- Referee for sociology journals: *American Journal of Sociology*, *Social Forces*, *Sociology of Education*

- Referee for economics and public policy journals: *Labour Economics*, *Joural of Policy Anaysis and Management*

- Referee for granting agencies: Institute of Education Sciences, National Science Foundation, Spencer Foundation, William T. Grant Foundation

DISCUSSANT

- Discussant for the symposium "Causal mediation in education research: Opportunities and challenges of examining intervention mechanisms" presented by Brian Vegetabile, Donna Coffman, Megan Schuler, and Daniel McCaffrey, by Xu Qin and Fan Yang, and by Trang Quynh Nguyen, Ian Schmid, and Elizabeth Stuart at the Society for Research on Educational Effectiveness virtual conference, July 25, 2020.

- Member of the doctoral evaluation commission on the PhD project of Mieke Goos, "Early-grade retention: Effects on children's academic growth, psycho-social growth, and school trajectory throughout elementary education," Katholieke Universitiet Leuven, Faculty of Psychology and Educational Sciences, Leuven, Belgium, March 25, 2009.

- Discussant for the symposium "Statistical techniques for drawing sound inferences in studies of educational programs and practices" presented by Michael Seltzer, Jinok Kim, Junyeop Kim, and Hye Sook Shin from the University of California-Los Angeles at the Annual Meeting of the American Educational Research Association, the New York city, New York, U.S., March 28, 2008.

- Discussant for the Workshop on Value-Added Achievement Models, jointly sponsored by the U.S. Department of Education Institute of Educational Science pre-doctoral training programs at the University of Wisconsin-Madison and the University of Chicago, Madison, Wisconsin, November 1, 2006.

- Discussant for the symposium "Statistical techniques and strategies for addressing questions concerning the conditions under which educational programs are effective and for whom" presented by Michael Seltzer, Jinok Kim, and Junyeop Kim from the University of California-Los Angeles at the Annual Meeting of the American Educational Research Association, San Francisco, California, U.S., April 10, 2006.

PANALIST

- Panelist in the session on "Publishing," AERA Doctoral Conference, Washington DC, U.S., September 28, 2007.

WORKSHOP INSTRUCTOR

- Peking University Center for Social Research Summer Program (two weeks), "Causal Inference and Causal Mediation Analysis." Beijing, China. July 9-20, 2018.

- The 6th Summer Program in Applied Social Science Research Methods (one week), "Causal Inference." Shanghai, China. July 17-22, 2017.

- Society for Research on Educational Effectiveness (SREE) Professional Development Workshop (half-day), "New Weighting Methods for Causal Mediation Analysis." Co-presented with Jonah Deutsch and Xu Qin. Washington DC, March 1, 2017.

- Doris Duke Fellowship Methods Workshop, "New Method for Causal Mediation Analysis." Chapin Hall, Chicago, IL, September 15, 2016.

- Stanford University Center for Education Policy Analysis Workshop for IES Predoctoral Fellows, "Weighting Methods for Causal Mediation Analysis." Palo Alto, CA, July 21, 2016. (https://www.youtube.com/watch?v=tZru8KbU_48)

- National Council for Measurement and Evaluation (NCME) Training Session, "New Weighting Methods for Causal Mediation Analysis." Washington DC, April 7, 2016.

- American Educational Research Association (AERA) Professional Development Course (half-day), "New Weighting Methods for Causal Mediation Analysis." Co-presented with Jonah Deutsch; live streamed and archived online at www.aera.net Virtual Research Learning Center. Chicago, IL, April 17, 2015.

- University of California-Los Angeles Advanced Quantitative Methods Program Workshop, "MMW-S: A Generalized Method for Causal Inference." Los Angeles, California, U.S., May 17, 2013.

- American Educational Research Association (AERA) Professional Development Course (one-day), "MMW-S: A Generalized Method for Causal Inference," co-presented with Rachel Garrett, Yihua Hong, and Bing Yu. San Francisco, California, U.S., April 26, 2013.

- Randomized Controlled Trials (RCTs) for Clinical and Behavioral Settings, a half-day session in the Quantitative Training Program of the Center for Research Methods and Analysis at the University of Kansas, Lawrence, Kansas, U.S., June 7, 2012.

- American Educational Research Association (AERA) Professional Development Course (half-day), "MMW-S: A Generalized Method for Causal Inference," co-presented with Rachel Garrett, Yihua Hong, and Bing Yu. Vancouver, British Columbia, Canada, April 14, 2012.

- Inter-university Consortium for Political and Social Research (ICPSR) Summer Program in Quantitative Methods of Social Research, "Applying Hierarchical Models to Causal Inference," a full-day session in *Hierarchical Linear Models II: Advanced Topics*, Ann Arbor, Michigan, U.S., July 8, 2010.

- Inter-university Consortium for Political and Social Research (ICPSR) Summer Program in Quantitative Methods of Social Research, "Hierarchical Linear Models II: Advanced Topics," co-presented with Stephen W. Raudenbush, Ann Arbor, Michigan, U.S., July 6-9, 2009.

- National Council on Measurement in Education (NCME) Training Session, "Applying Hierarchical Models to Causal Inference," co-presented with Stephen W. Raudenbush, San Diego, California, U.S., April 13, 2009.

- National Council on Measurement in Education (NCME) Training Session, "Applying Hierarchical Models to Causal Inference," co-presented with Stephen W. Raudenbush, the New York city, New York, U.S., March 24, 2008.

- American Educational Research Association (AERA) Professional Development Course, "An Overview of Causal Inference Theories and Methods in Education," co-presented with Stephen W. Raudenbush, the New York city, New York, U.S., March 23, 2008.

- Inter-university Consortium for Political and Social Research (ICPSR) Summer Program in Quantitative Methods of Social Research, "Hierarchical Linear Models II: Advanced Topics," co-presented with Stephen W. Raudenbush, Eileen Sayer, and Christopher Johnson, Ann Arbor, Michigan, U.S., July 11-13, 2007.

- National Council on Measurement in Education (NCME) Training Session, "Applying Hierarchical Models to Causal Inference," co-presented with Stephen W. Raudenbush, Chicago, Illinois, U.S., April 9, 2007.

- Inter-university Consortium for Political and Social Research (ICPSR) Summer Program in Quantitative Methods of Social Research, "Hierarchical Linear Models II: Advanced Topics," co-presented with Stephen W. Raudenbush and Christopher Johnson, Ann Arbor, Michigan, U.S., July 7-9, 2006.

- National Council on Measurement in Education (NCME) Training Session, "Applying Hierarchical Models to Causal Inference," co-presented with Stephen W. Raudenbush, San Francisco, California, U.S., April 7, 2006.

- AERA Statistical Institute, "Statistical Analysis for Educational Policy," co-presented with Stephen W. Raudenbush, William Schmidt, and David Kaplan, American Educarional Research Association, New Orleans, Louisianna, U.S., April 2002.

- Workshop on "Statistical Models for Estimating School and Teacher Effects on Student Learning," presented with Stephen W. Raudenbush, Consortium for Chicago School Research, Chicago, Illinois, U.S., July 10, 2001.

WORKSHOP COORDINATOR

Quantitative Methods for Education, Health, and Social Sciences (QMEHSS) Workshop at the University of Chicago, 2013-2014, 2018-2019.

GUEST INSTRUCTOR

- Invited Guest Lecture, "A model for school learning," Introduction to Human Development course, Comparative Human Development, University of Chicago, November 17, 2015.

- Invited Guest Lecture, "Pedagogy for teaching methods courses," Comparative Human Development, University of Chicago, May 19, 2014.

- Invited Guest Lecture, "Propensity Score-Based Causal Inference Methods," Harris School of Public Policy Studies, University of Chicago, May 15, 2007.

- Invited Guest Lecture, "Introduction to Multi-level Modeling," Ontario Institute for Studies in Education of the University of Toronto, Canada, March 7, 2005.

PROFESSIONAL ASSOCIATION MEMBERSHIP

- American Statistical Association
- American Educational Research Association
- American Sociological Association
- Association of Public Policy Analysis and Management
- Society for Research on Educational Effectiveness
- Society for Causal Inference