HONG, GUANGLEI

Ph.D., Associate Professor with Tenure

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Comparative Human Development Department and the 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 Education, East China Normal University, Shanghai, China, 1989

AWARDS

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

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

NAE/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

Associate Professor with tenure (July 2012-Present)
Assistant Professor (July 2009-June 2012)
>   Department of Comparative Human Development and the Committee on Education,
>   University of Chicago, Chicago, Illinois, U.S.
>   Courses:
>   - Applied Statistics in Human Development Research
>   - Causal Inference
>   - Mediation, Moderation, and Spillover Effects
>   - Social Science Inquiry (college core sequence)

Assistant Professor (July 2004-June 2009), Department of Human Development and Applied
>   Psychology, Ontario Institute for Studies in Education of the University of Toronto,
>   Toronto, Ontario, Canada
>   Courses:
>   - Causal Inference
>   - Elements of Statistics
>   - Interpretation of Educational Research
>   - Introduction to Applied Statistics
>   - Multi-Level Modeling for Educational and Social Scientific Research
>   - Path Analysis and Causal Inference

Visiting Scholar (September 2006-June 2007), Department of Sociology, University of
>   Chicago, U.S.

Faculty Associate (September 2003-June 2004), Department of Curriculum, Teaching, and
>   Learning, Ontario Institute for Studies in Education of the University of Toronto,
>   Toronto, Ontario, Canada

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

Graduate Student Instructor (Fall 2000 , 2001), University of Michigan, Ann Arbor,
>   Michigan, U.S.

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

RESEARCH GRANTS

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, USD350,000,
>   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, CAD151,792, 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, CAD10,000, 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, USD55,000, 2006-2007.

Co-Investigator, "Improving research on instruction: Models, designs, and analytic methods," Spencer Foundation Major Research Grant subcontract to the University of Toronto, USD246,647, 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, CAD1,700, 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, CAD5,000, 2005-2006

Principal Investigator, "Causal Effects of Kindergarten Retention on Children's Cognitive Growth Mediated by Classroom Instruction," University of Toronto Connaught Startup Fund, CAD10,000, 2004-2006.

PUBLICATIONS

In North America

<u>Book</u>

Hong, G. (2015). *Causality in a social world: Moderation, mediation, and spill-over*. West Sussex, UK: Wiley-Blackwell.

<u>Journal Articles</u>

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

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. (2013). Covariate-informed parallel design: Discussion of "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). 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., & 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.

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. (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, 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.

Working Papers

Garrett, R., & Hong, G. (Revised and resubmitted). Impacts of grouping and time on the math learning of language minority kindergartners.

Hong, G., Nomi, T., & Yu, B. (Revise and resubmit). Prognostic score-based difference-in-difference strategy for educational policy evaluation.

Hong, Y., & Hong, G. (Revise and resubmit). Exploring the role of in-house mentoring in the study of the Comprehensive Teacher Induction programs.

Hong, G., Pelletier, J., Hong, Y., & Corter, C. (Under review). Does literacy instruction affect kindergartners' externalizing problem behaviors as well as their literacy learning? Taking class manageability into account.

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

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. (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

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

DOCTORAL THESES (Committee Chair)

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"

Emiko Koyama,
> "Causal effect of play-based, balanced, and academics-based full-day kindergartens on children's academic and approaches to learning outcomes from kindergarten to grade 5"

DOCTORAL THESES (Committee Member)

Marshall Jean
> "Some are born great, some achieve greatness… - Examining the iterative process of ability grouping and regrouping in primary and secondary schools"

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

Sejal Patel, 2009
> "Integrated early-childhood program participation, parenting, and child development outcomes: The Toronto First Duty Project"

MASTER'S THESES

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"

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 journals: *Labour Economics*

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

DISCUSSANT

- 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

- 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

GUEST INSTRUCTOR

- Invited Guest Lecture, "Pedagogy for teaching methods courses," Comparative Human Development, University of Chicago, May 19, 2014.
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- 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 Educational Research Association
- American Statistical Association
- Society for Research on Educational Effectiveness