

## Curriculum Vitae

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### Education

- 2006 Ph.D. Educational Theory and Policy, Pennsylvania State University-University Park
- 2001 M.A. Sociology, University of Missouri, St. Louis,
- 1998 B.A. Sociology, University of Missouri, St. Louis, *Sum Cum Laude*
- 1995 A.A. English Literature, Toyo University Junior College, Tokyo, Japan

### Current appointment

- 2012-present Assistant Professor, College of Education, St. Louis University
- 2012-present Research Affiliate, Consortium on Chicago School Research, University of Chicago
- 2006-2012 Senior Research Analyst, Consortium on Chicago School Research, University of Chicago

### Research interests

Urban Education, Education Policy, Inequality in Education, Social Organization of Schools, Quasi-experimental methodologies, Causal Inference Theories and Methods

### Refereed Publications

- Nomi, T., & Allensworth, E. (2013). Sorting and supporting: Why double-dose algebra led to better test scores but more course failure through changes in classroom composition, climate and instruction. *American Educational Research Journal*, 50, 756-788
- Hong, G., Nomi, T., & Yu, B. (2013). Prognostic score-based difference-in-differences. In *JSM Proceedings*, Social Statistics Section. Alexandria, VA: American Statistical Association. 4952-4966.
- Nomi, T. (2012). Unintended consequences for high-skill students of an algebra-for-all policy: The effects on classroom academic composition and students' academic outcomes. *Educational Evaluation and Policy Analysis*, 34, 489-505.
- Raudenbush, S. W., Reardon, S. F., & Nomi, T. (2012). Statistical analysis for multi-site trials using instrumental variables. *Journal of Research on Educational Effectiveness: Special*

*Issue on the Statistical Approaches to Studying Mediator Effects in Education Research*, 5, 303-332.

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, 261-289.

Raudenbush, S. W., Reardon, S. F., & Nomi, T. (2012). Rejoinder: Probing Assumptions, Enriching Analysis. *Journal of Research on Educational Effectiveness: Special Issue on the Statistical Approaches to Studying Mediator Effects in Education Research*, 5, 342-344.

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, 299-302.

Nomi, T. (2010). The effects of within-class ability grouping on academic achievement in early elementary years, *Journal of Research on Educational Effectiveness*, 3:56-92.

Allensworth, E., Nomi, T., Montgomery, N., & Lee, V. (2009). College preparatory curriculum for all: Academic consequences of requiring Algebra and English I for ninth graders in Chicago. *Educational Evaluation and Policy Analysis*, 31, 367-391.

Nomi, T., & Allensworth, E. (2009). "Double-dose" algebra as an alternative strategy to remediation: Effects on students' academic outcomes, *Journal of Research on Educational Effectiveness*, 2, 111-148.

Kornhaber, M. L., Mishook, J. J., Edwards, M., & Nomi, T. (2007). Testing's influence on the arts: Some unexpected findings from Virginia. *KEDI Journal*, 3, 45-67.

LeTendre, G. K., Gonzalez, R. G., & Nomi, T. (2006). Feeding the elite: The evolution of elite pathways from star high schools to elite universities. *Higher Education Policy*, 19, 7-30.

Smith, W. H., & Nomi, T. (2000). Is Amae the key to understanding Japanese culture? *Electronic Journal of Sociology*.

### **Book chapters/ Reports/Policy briefs**

Nomi, T., & Allensworth, E. (in press). *The Costs and Benefits of Skill-Based Sorting in the College-Prep for All Era*. Chicago, IL: the Consortium on Chicago School Research.

Cortes, K., Goodman, J. and Nomi, T. (2013), A double-dose of algebra. *Education next*, 13(1),71-76.

Nomi, T., & Allensworth, E. (2011). Double-dose algebra as a strategy for improving mathematics achievement of struggling students: Evidence from Chicago Public Schools. In R. Gersten & R. Newman-Gonchar (Ed.) *Understanding RTI in mathematics*. Baltimore, MD: Brookes Publishing Co.

Nomi, T., & Pong, S. (2011). Self-fulfilling prophecy. In G. Ritzer (Ed.) *Concise encyclopedia of Sociology*. Malden, MA: Blackwell.

Nomi, T., & Pong, S. (2007). Self-fulfilling prophecy. In G. Ritzer (Ed.), *Encyclopedia of Sociology*. Malden, MA: Blackwell.

Nomi, T. (2005). *Portrait of first-generation community college students*. American Association of Community Colleges, Washington DC.

### **Working papers**

Cortes, K., Goodman, J. & Nomi, T. Doubling up: The long run impacts of remedial algebra on high school graduation and college enrollment. *Under review*

Nomi, T & Raudenbush, S. Academic differentiation, instructional reform, and inequality: Evidence from a natural experiment in 60 urban high schools. *Under review*

Nomi, T. "Double-dose" English as a strategy for improving adolescent literacy: Total effect and mediated effect through change in peer ability. *Under review*

Hong, G., Nomi, T., & Yu, B. Prognostic score-based difference-in-differences strategy applied to multilevel interrupted time series data.

Nomi, T & Raudenbush, S. Algebra for all: the effect of algebra coursework and classroom peer academic composition on low-achieving students.

### **Research Grants**

Spencer Foundation

Project: Pathway to college: Understanding the mechanism of the long-term impact of ninth-grade algebra intervention on student's educational attainment in urban schools

Funding period: 1/1/2014-12/31/2014

Role: Principal Investigator (total cost: \$45,823)

Institute of Education Sciences, U.S. Department of Education

Project: Making a success of "algebra for all": A fleet of natural experiments in urban curricular reforms

Funding period: 7/1/2012-6/31/2014 (total cost \$490,831)

Role: Principal Investigator (co-PI: Stephan Raudenbush, Department of Sociology, University of Chicago. Co-Investigator: Guanglei Hong, University of Chicago, Department of Comparative Human Development)

Institute of Education Sciences, U.S. Department of Education

Project: Weighting methods for mediation analysis in experimental and quasi-experimental multilevel data"

Funding period: 7/1/2012-6/31/2015 (subaward total cost \$113,012)

Role: Co-Investigator (PI: Guanglei Hong, University of Chicago, Department of Comparative Human Development)

Institute of Education Sciences, U.S. Department of Education

Project: Doubling up?: The impact of remedial algebra on students' long-run outcomes

Funding period: 7/1/2012-6/31/2013 (subaward total costs: \$57,272)

Role: Co-Principal Investigator (Co-PIs: Joshua Goodman, Harvard Kennedy School of Government, Harvard University. Kalena Cortes, Bush School of Government and Public Service, Texas A & M University)

### **Pending Research Grants**

Presidential Research Fund, St. Louis University

Project: Turning around Missouri's persistently low performing schools: Evaluating the impact on students' outcomes after three years of implementation

Funding period: 6/1/2014-5/31/2015

Role: Principal Investigator (total cost: \$18,418)

### **Honors and Awards**

Routledge Education Class of 2011. Most popular articles published in 2010 by Routledge in Early Years and Primary/Elementary Education.

Invited participant, the AERA Emerging Scholar Workshop, Denver, CO, May, 2010

Invited participant, the AERA-FCD Summer Institute, Washington DC, July, 2009

Invited participant, the AERA Grants Program Doctoral Awardee Conference, Washington DC, September, 2007

The winner of the AERA Grants Program's Statistics Institute paper competition, 2006

American Educational Research Association Dissertation Grant, 2005-2006

Penn State College of Education Alumni Award, 2004

The Outstanding Junior Sociology Major Award, University of Missouri-St. Louis, 1997

Merit Scholarship, University of Missouri-St. Louis, 1997

### **Refereed Presentations**

Nomi, T & Raudenbush, S. (2014). Algebra for all: the effect of algebra coursework and classroom peer academic composition on low-achieving students. Paper accepted for presentation at the Society for Research on Educational Effectiveness conference, Washington DC.

- Allensworth, E., Nomi, T & Happen, J. (2014). Getting back on track: Pay-offs to expanding Summer Credit Recovery in ninth-grade Algebra. Paper accepted for the American Educational Research Association, Philadelphia, PA.
- Cortes, K., Goodman, J., & Nomi, T. (2014). Intensive math instruction and educational attainment: Long-run impacts of double dose Algebra. Paper presented at the American Economic Association, Philadelphia, PA.
- Nomi, T. (2013). "Double-dose" English as a strategy for improving adolescent literacy: Total effect and mediated effect through classroom peer ability change. Paper presented at the American Educational Research Association, San Francisco, CA.
- Nomi, T. (2013). Prognostic Score-Based Difference-in-Differences Strategy Applied to Multi-level Time Series Data: Evaluation of an Algebra-for-All Policy in Chicago. Paper presented at the Society for Research on Educational Effectiveness conference, Washington DC.
- Allensworth, E., & Nomi, T. (2013). Pay-Offs from Expanding Summer Credit Recovery in Algebra. Paper presented at the Society for Research on Educational Effectiveness conference, Washington DC.
- Goodman, J., Cortes, K., and Nomi, T. (2013) Doubling Up: Intensive Math Instruction and Educational Attainment, Paper presented at the Society for Research on Educational Effectiveness conference, Washington DC.
- Nomi, T., & Raudenbush, S. W. (2012). Impact of Curricular Reform On Course-Taking, Classroom Composition, and Achievement: A Multi-Site Regression Discontinuity Design. Paper presented at the Association for Public Policy Analysis and Management, Baltimore, MD.
- Cortes, K., Goodman, J., & Nomi, T. (2012). Doubling up: the Long Run Impacts of Remedial Algebra On High School Graduation and College Enrollment. Paper presented at the Association for Public Policy Analysis and Management, Baltimore, MD.
- Hong, G., Nomi, T., & Yu, B. (2012). Prognostic Score-Based Difference-in-Differences Strategy Applied to Interrupted Time Series Data. Paper presented at Joint Statistical Meetings, San Diego, CA.
- Cortes, K., Goodman, J., & Nomi, T. (2012). Doubling Up: The Long Run Impacts of Remedial Algebra on High School Graduation and College Enrollment. Paper presented at the NBER Education Program Meeting, Boston, MA.
- Hong, G., & Nomi, T. (2012). Weighting Methods for Assessing Policy Effects Mediated by Peer Change. Paper presented at the Society for Research on Educational Effectiveness conference, Washington DC.

- Raudenbush, S., Reardon, S., & Nomi, T. (2012). Statistical Analysis for Multi-Site Trials Using Instrumental Variables. Paper presented at the Society for Research on Educational Effectiveness conference, Washington DC.
- Nomi, T., & Raudenbush, S. (2012). Understanding Treatment Effects Heterogeneities Using a Multi-Site Regression Discontinuity Design: Example from a "Double-Dose" Algebra Study in Chicago. Paper presented at the Society for Research on Educational Effectiveness conference, Washington DC.
- Nomi, T. (2011). Understanding Treatment Effects Heterogeneities using a Multi-site Regression Discontinuity Design: an Example from a Double-dose Algebra Study in Chicago. Paper presented at the International Symposium on the Economics of Education, Chinese University of Hong Kong.
- Nomi, T., & Allensworth, E. (2011). Sorting and Supporting: Why Double-Dose Algebra Led to Better Test Scores but More Course Failure through Changes in Classroom Composition, Climate and Instruction. Paper presented at the American Educational Research Association, New Orleans, LA.
- Nomi, T., & Raudenbush, S. (2011). Context-specific Effects of High School Curricular Reform and the Resilience of Social Structure. Paper presented at the American Educational Research Association, New Orleans, LA.
- Hong, G., & Nomi, T (2011). Change in Peer Ability as a Mediator and Moderator of the Effect of the Algebra-For-All Policy on Ninth Graders' Math Outcomes. Paper presented at the Society for Research on Educational Effectiveness conference, Washington DC.
- Nomi, T., (2010) Unintended consequences of an Algebra-for-all policy on high-skill students: Evidence from Chicago Public Schools. Paper presented at the Association for Public Policy Analysis and Management, Boston, MA.
- Nomi, T., (2010) "Double-dose" English as a strategy for improving adolescent literacy: Evidence from Chicago Public Schools. Paper presented at the American Educational Research Association, Denver, CO.
- Nomi, T., (2010). Unintended consequences of an Algebra-for-all policy: The effects on classroom academic compositions and students' academic outcomes. Paper presented at the Society for Research on Educational Effectiveness conference, Washington DC.
- Nomi, T., & Allensworth, E. (2009). The costs and benefits for low-and high-skill students of tracking with supports in high school algebra classes. Paper presented at the Annual American Sociological Association Meeting, San Francisco, CA.
- Allensworth, E., Nomi, T., Montgomery, N., & Lee, V (2009). College preparatory curriculum for all in Chicago high schools: Consequences of 9th-grade course taking in Algebra and English on academic outcomes. Paper presented at the American Educational Research Association, San Diego, CA.

- Allensworth, E., & Nomi, T. (2009). College-preparatory curriculum for all: The consequences of raising mathematics graduation requirements on students' course taking and outcomes in Chicago. Paper presented at the SREE conference, Crystal City, VA.
- Nomi, T. & Allensworth, E. (2008). Consequences of a "double-dose" algebra policy on academic outcomes: Evidence from Chicago Public Schools. Paper presented at the 2008 Institute of Education Sciences, Washington DC.
- Nomi, T., & Allensworth, E. (2008). Consequences of requiring "double-dose" Algebra coursework: Evidence from Chicago Public Schools. Paper presented at the SREE conference, Crystal City, VA.
- Nomi, T. (2007). The effects of within-class ability grouping on academic achievement in early elementary years. Paper presented at the AERA Grants Program Doctoral Awardee Conference, Washington DC.
- Nomi, T., Montgomery, N., Easton, J., & Lee, V. (2007). College preparatory curriculum for all: Implementation and effects of raising high school graduation requirements on ninth-grade coursework and outcomes in Chicago. Paper presented at the Institute of Education Sciences, Washington DC.
- Allensworth, E., Nomi, T., & Montgomery, N. (2007), College preparatory curriculum for all: Implementation and long-term effects of raising high school graduation requirements in the Chicago public schools. Paper presented at the Illinois Education Research Council, Orland Park, IL.
- Nomi, T. (2006). The causal effect of within-class ability grouping in early elementary years: The application of the propensity score matching. Paper presented at the American Educational Research Association, San Francisco, CA.
- Nomi, T. (2006). The variable effects of within-class ability grouping: The effect of the group number on reading achievement in first grade. Paper presented at the American Educational Research Association, San Francisco, CA.
- Nomi, T. (2004). The Asian-White achievement gap: Evidence for kindergarten and first grade. Paper presented at the Annual American Sociological Association Meeting, San Francisco, CA.
- Smith, W. H., & Nomi, T. (1998). Is Amae the key to understanding Japanese culture? Paper presented at the Annual American Sociological Association Meeting, in San Francisco, CA.

### **Invited Talks**

- Nomi, T. (2013). Prognostic Score-Based Difference-in-Differences Strategy Applied to Multi-level Time Series Data. School of Public Health, St. Louis University.
- Nomi, T. (2012). Unintended Consequences of an Algebra-for-all Policy on High-skill

Students: The Effects on Instructional Organization and Students' Academic Outcomes. Strategic Data Project Webinar, Harvard University

Nomi, T. (2012). Double-dose Algebra as a Strategy for Improving Mathematics Achievement of Struggling Students: Evidence from Chicago Public Schools. Center for Instruction Webinar.

Nomi, T. (2011). Unintended consequences of an Algebra-for-all policy on high-skill students: The effects on instructional organization and students' academic outcomes, Chinese University of Hong Kong.

Nomi, T. (2011). Double-dose algebra as a strategy to support struggling students: Evidence from Chicago Public Schools, Minnesota Department of Education Webinar

Nomi, T. (2011) Consequence of Requiring "Double-dose" Algebra Coursework: Evidence from Chicago Public Schools, Rikkyo University, Tokyo, Japan.

Nomi, T. (2010). What we learned about ability grouping from two Algebra policies in CPS, Urban Education Institute, University of Chicago.

Nomi, T (2007). Educational stratification in early elementary school: The causal effect of ability grouping on reading achievement. AERA Grants Program Doctoral Awardee Conference, Washington DC.

### **Media Mention**

*Education Week*, "Study: Doubling Up on Algebra Translates to Long-Term Gains" (November 7, 2012); "'Double Dose' of Algebra Found to Lift Scores, Not Passing Rates" (April 22, 2011); "Algebra-for-All Policy Found to Raise Rates Of Failure in Chicago" (March 11, 2009); "Curriculum Matters: Algebra-for-All Policy Harmed High-Achievers, Study Finds" (August 02, 2012); "Curriculum Matters: Study Finds Benefits to a 'Double Dose' of Algebra" (November 01, 12).

### **Research Positions Held**

2002-2005      Research Assistant, Educational Theory and Policy Program, Pennsylvania State University  
The Project on Human Development in Chicago Neighborhoods

Summer 2004   Summer Intern, Survey Research Division, ACT, Inc., Iowa City, Iowa

1998-2000      Research Assistant, Department of Sociology  
UM-St. Louis/Washington University Joint Undergraduate Engineering Program

### **Teaching Experiences:**

#### ***Graduate Courses Taught***

Applied Statistics for Education, Inferential Statistics, Graduate Seminar in Causal Inference

Theories and Methods, Multi-Level Modeling

***Undergraduate courses***

Sociological Statistics

***Teaching Assistant***

Introduction to Sociology, Sociology of Wealth and Poverty, Research Methods,  
Sociology of Deviant Behavior, Sociological Statistics,

**University Services**

Research Committee, 2012-  
Dissertation Reader, 2012-

**Professional Services:**

***Journal Reviewer***

*Educational Researcher, Educational Evaluation and Policy Analysis, Elementary School Journal, Journal of Research on Educational Effectiveness, Sociology of Education, Irish Educational Studies*

***Conference Proposal Reviewer***

American Educational Research Association  
Society for Research on Educational Effectiveness

Technical Working Group Member, Regional Educational Laboratory Appalachia