

# ERIC W. CHAN

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## EMPLOYMENT

2018-	Babson College	Assistant Professor of Statistics & Public Policy
2016-2018	Babson College	Lecturer of Quantitative Methods
2013-2018	Community College Research Center	Doctoral Fellow/ Research Assistant
2011-2012	Boston Public Schools	Data Analyst Fellow
2008-2011	PricewaterhouseCoopers	Associate

## EDUCATION

2013-2018	Columbia University	Ph.D., Economics and Education
2012-2013	Teachers College, Columbia University	M.A., Economics and Education
2004-2007	Babson College	B.S., Business Management

## RESEARCH FIELDS

Causal Inference, Labor Economics, Economics of Education, Discrimination & Disparities

## PUBLICATIONS

[Leveraging Parents through Low-Cost Technology: The Impact of High-Frequency Information on Student Achievement](#) (with Peter Bergman) Forthcoming, *Journal of Human Resources* 56(1), 2021

We partnered a low-cost communication technology with school information systems to automate the gathering and provision of information on students' academic progress to parents of middle and high school students. We sent weekly, automated alerts to parents about their child's missed assignments, grades, and class absences. The alerts reduced course failures by 27%, increased class attendance by 12%, and increased student retention, though there was no impact on state test scores. There were larger effects for below-median GPA students and high school students. Over 32,000 text messages were sent at a variable cost of \$63.

[Preschool for All? Enrollment and Maternal Labour Supply Implications of a Bilingual Preschool Policy](#) *Applied Economics*, 52(9), 970-986, 2020

Previous research supports the effectiveness of preschool in various contexts, yet there is limited evidence whether universal-type preschool policies induce changes in enrollment. While certain states have enacted universal preschool policies, some have also considered bilingual preschool mandates, either as a supplementary or stand-alone policy, requiring schools to open up bilingual classrooms for children from non-English speaking families. The question of whether bilingual preschool policies can induce enrollment and close achievement gaps between English learners and English speakers is particularly important today for urban cities and states with large immigrant populations. In this study, I exploit exogenous variation from the first bilingual prekindergarten mandate in Illinois to estimate the causal effects on preschool enrollment and maternal labour supply of recently immigrated and Hispanic families. Utilizing a difference-in-differences strategy, estimates suggest significant effects on preschool enrollment between 18% and 20% and no effects

of increasing maternal labour supply in Illinois. Estimates are robust to various specifications, control groups, and timeframes. I use the analysis to further discuss whether universal preschool policies are designed sufficiently for access and inclusion of various student types, and contribute to our understanding on the effectiveness of using childcare subsidies to increase the welfare of low-income families.

## **SUBMITTED RESEARCH**

[Housing Search Frictions: Evidence from a Detailed Search Data and a Field Experiment](#) (with Peter Bergman and Adam Kapor).

This paper shows that imperfect information about school quality causes low-income families to live in neighborhoods with lower-performing, more segregated schools. We randomized the addition of school quality information onto a nationwide website of housing listings for families with housing vouchers. We find that this information causes families to choose neighborhoods with schools that have 1.5 percentage point higher proficiency rate on state exams. We use data from the experiment to estimate a dynamic model of families' search for housing on and off the website, as well as their location decisions. The model incorporates imperfect information about school quality and characterizes the bias that would arise from estimating neighborhood preferences ignoring this information problem. Having data from both the treatment and control groups allows us to estimate families' prior beliefs about school quality and each group's apparent valuation of school quality. Families tend to underestimate school quality conditional on neighborhood characteristics. If we had ignored imperfect information, we would have estimated that the control group valued school quality relative to their commute downtown by less than half that of the treatment group.

[Heterogeneous Responses to Education Quality.](#)

This paper contributes evidence on whether parental investment inputs are complements or substitutes to educational quality. Using exogenous variation induced from a gifted and talented program, I find no effects on parental behavior as a result of their child being identified as gifted. However, there are heterogeneous effects. Responses are particularly strong for minority and low-income. I also find significant demographic heterogeneity in the trade-off between investments in paid tutoring and in-home homework help. Implications of these results suggest that parental investments are not necessarily a strict complement or substitute, but is nuanced dependent on family context and other demographic factors. These results have strong implications on indirect policy effects of education production functions. I argue that the mechanism at play is based on parental beliefs.

## **ONGOING RESEARCH**

[Instructor Evaluation and Classroom Behavior in Higher Education](#) (with Krista Hill and Joshua Stillwagon). Working Paper in Progress.

[Determinants of Housing Discrimination: Evidence from a Correspondence Experiment](#) (with Yulian Fan). Working Paper in Progress.

[Walkability and Consumption in a Pandemic.](#) Working Paper in Progress.

Human Capital Accumulation or Signaling? The Case of Gifted and Talented Programs. Working Paper in Progress.

Altruistic Donations for Education Financing during Teacher Strikes (with Zhi Li). Data Analysis in Progress.

The Effects of State-Funded Capital Investments in Public Schools on Housing Prices, Neighborhood Demographics, and Inequality (with George Recck). Data Collection in Progress.

School Desegregation, Housing Prices, and Mortgage Decisions. Data Collection in Progress.

## OTHER WORK

Classifying STEM Programs in Community Colleges to Develop a State-Level Middle-Skill STEM Workforce Strategy (with Valerie Lundy-Wagner). Center for the Analysis for Postsecondary Education and Employment.

School-Based Management (with Priscilla Wohlstetter). *The Encyclopedia of Education Economics and Finance*. Thousand Oaks, CA: SAGE. 2014.

## AWARDS, GRANTS, AND FELLOWSHIP

IFTRA Travel/Research Funds (\$5,000)

Babson Faculty Research Fund for Interdisciplinary Research (\$30,000 total, w/ A. Bal, J. Stillwagon, and K. Hill), Babson College, 2019

Babson Summer Research Grant (\$10,000), Babson College, 2019

Babson Faculty Research Fund (Course Release), Babson College, 2018

Burke Award for Outstanding Student in Economics and Education (\$2,000), Teachers College, 2018

Arvid J. and Mary A. Burke Fellowship (\$500), Teachers College, 2016

CCEE Prize for Best Graduate Student Research Paper in Economics of Education (\$2,500), Columbia Committee on Economics of Education, 2016

Doctoral Research Fellowship, Teachers College Columbia University, 2013-2015

Teachers College Minority Scholarship, Teachers College Columbia University, 2014

Teachers College General Scholarship, Teachers College Columbia University, 2013

Christine DeLeon Award for Demonstration of Courage, Education Pioneers, 2012

Education Pioneers Analyst Fellowship, Boston Public Schools, 2011-2012

## SELECTED PRESENTATIONS AND SEMINARS

**2019/2020** Babson Faculty Research Day, Babson College Research Seminar, Foundry of Innovative Teaching (FIT) **2018/19** (on parental leave) Babson College, Columbia University, AEFPP Conference **2017/18** University of Virginia, UC-Santa Barbara, Teachers College, Columbia University, APPAM Fall Conference, IZA Economics of Education Workshop, Babson College, Mechanism Design for Social Good Working Group, AEFPP Conference, Community College Research Center **2016/17** Columbia University, Association for Education Finance & Policy, Association for Education Finance & Policy Annual Conference (Discussant) **2015/16** Teachers College, Columbia University, APPAM Fall Conference, AERA Annual Conference, Community College Research Center **2012/13** Education Pioneers Summer Conference (Keynote Speaker)

## ACADEMIC SERVICE

- 2020-2021 Development of *Quantitative Methods of Structural Injustice* (Undergraduate Course)
- 2020-2021 Honors Thesis Advisor to Anushka Reddy
- 2020 First Year Pathways Online Course Development for QTM 1000 (w/others)
- 2019-2020 Search Committee for Lecturer in Quantitative Methods, Babson College
- 2019-2020 Faculty Senate (Elected Alternate), Babson College
- 2019-2020 Quantitative Analytics Core Curriculum Redesign Committee
- 2018-2019 Internal statistical analysis of Babson's Student Opinion Surveys
- 2018-2022 Faculty Mentor, Babson Diversity Leadership Scholars 2018 Cohort
- 2019-2020 Honors Thesis Advisor to Gregory Clancy, Babson College
- 2019 Babson Business Analytics Club Hackathon Competition Mentor
- 2018-2019 Honors Thesis Advisor to Swapnika Yarlaggarda, Babson College
- 2018-2019 Undergraduate Academic Policy Committee Assessments Subcommittee, Babson College
- 2017-2018 Open Rank Faculty Search Committee, Teachers College Columbia University (PhD rep)

## REFEREEING/REVIEW/PROFESSIONAL SERVICE

**Referee Service.** *Journal of Policy Analysis and Management, Economics of Education Review, Applied Economics Letters, Journal of Population Economics, Applied Economics, IEEE Transactions on Education*

**Grant Reviewer.** Ohio Department of Education, Massachusetts Department of Secondary and Elementary Education

**Co-Organizer.** Paper Panel on “[Housing, Information, and Technology](#),” 2020 APPAM Meetings

## MEMBERSHIP

Society for Labor Economists (SOLE), American Economic Association (AEA), Association for Public Policy and Management (APPAM), American Statistical Association (ASA), Urban Economics Association (UEA)