Ari Bronsoler

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Education

Ph.D candidate in Economics — *Boston, MA, USA*
Massachusetts Institute of Tecnology — *2017 - 2022 (expected)*
- Main fields: Public Economics and Development Economics
- Secondary fields: Organizational Economics and Behavioral Economics

Master of Arts in Economic Theory — *Mexico City, Mexico*
Instituto Tecnólogico Autónomo de México (ITAM) — *2015 - 2017*
- Graduated with highest honors

Bachelor of Arts in Applied Mathematics — *Mexico City, Mexico*
Instituto Tecnólogico Autónomo de México (ITAM) — *2011 - 2017*
- Graduated with highest honors

Bachelor of Arts in Economics — *Mexico City, Mexico*
Instituto Tecnólogico Autónomo de México (ITAM) — *2010 - 2015*
- Graduated with highest honors

Teaching Experience

14.310x: Data Analysis for Social Scientists - edX — *MIT*
Teaching assistant on virtual platform — *Spring 2020*
- MITx MicroMasters program in Data, Economics, and Development Policy (DEDP) students

14.75 Political Economy and Economic Development — *MIT*
Teaching assistant to Professors Abhijit Banerjee and Ben Olken — *Summer 2020*
- Undergraduate and Data, Economics, and Development Policy Masters students

15.903 Strategy and Organization — *MIT*
Teaching assistant to Professor Bob Gibbons — *Fall 2019*
- MBA students

14.282 Organizational Economics — *MIT*
Teaching assistant to Professor Bob Gibbons — *Fall 2019*
- PhD students

14.740x: Foundations of Development Policy — *MIT*
Teaching assistant on virtual platform — *Summer 2018*
- MITx MicroMasters program in Data, Economics, and Development Policy (DEDP) students

Academic Positions

Reasearch assistant- MIT — *MIT*
Work with Joseph Doyle and John Van Reenen — *2021-present*
- Causal effect of health IT adoption on the workforce

Reasearch assistant- Work of the future taskforce — *MIT*
Work with Joseph Doyle and John Van Reenen — *2019-2021*
- Literature review on the effect of healthcare IT on the workforce

Reasearch assistant-ITAM — *MIT*
Work with Kensuke Teshima — *2017*
- Develop a model of entry to crime labor market

Reasearch assistant-ITAM *MIT*

Work with Enrique Seira *2016-2017*

- Effect on productivity of pay for performance for diabetes care

Reasearch assistant-ITAM *MIT*

Work with Nicolas Melissas and Enrique Seira *2015-2017*

- Cartel detection in generic medicine procurement auctions in Mexico

Industry and Volunteering Positions

PEMEX-mexican state-owned petroleum company *Mexico City, Mexico*

Project manager *2016 - 2017*

- Liaison between general manager and healthcare director
- Created and implemented strategies to increase efficiency in medical care

IMSS-state owned health agency with Over 58 million beneficiaries. *Mexico City, Mexico*

Project coordinator *2014 - 2016*

- Designed intervention that could help improve diabetes detection rate at IMSS hospitals by over 90 percent
- Such intervention did not require additional spending. Only to re-focus testing for higher risk patients

Extracurricular activities *MIT*

Voluntary positions *2017 - present*

- Graduate resident advisor during Spring, 2021
- Site 4 graduate residence advisory board, 2021
- Transition logistics team from old residence (Eastgate) to new building (Site 4), 2020
- Graduate Economics Association Social Chair,2019
- Eastgate graduate residence advisory board,2018-2020

Fellowships, Honors and Awards

Mexico Fund for Graduate Student Fellowship *MIT*

Doctoral Fellowship *2017,2018,2020*

- Tuition and insurance

George and Obie Shultz Fund *MIT*

Research Fellowship *2019*

- $12,000 Funds for data exploration

Eli Lilly Global Health Initiative *MIT*

Research Fellowship *2018-present*

- $1.4m for the implementation of RCTs

Ex-ITAM award for best undergraduate thesis *ITAM*

Award *2017*

- Competitive selection among all economics thesis

Premio Especial XXX Aniversario de FUNSALUD, en Investigación en Salud Pública *National Public Health Institute*

Award *2015*

- Awarded best applied public health research in Mexico for work with diabetes predictions in IMSS

Research Papers

Getting Organized to Save Lives: Evaluation of a Reform in Cardiovascular Treatment in Mexico

MIT

Job Market Paper *2021*

- Fragmentation is one of the most important challenges for health networks as the lack of coordination and efficient communication across physicians hinders their ability provide high quality and timely care, especially when the patient has an acute condition and requires a transfer. In this paper I exploit the implementation of a policy that improved communication across hospitals in the public Mexican healthcare sector to analyze the role that adopting ICT can play in reducing fragmentation and improving health outcomes. I exploit the implementation of the "Código Infarto" program (Code heart attack in English) that aims to improve heart attack survival rates by enhancing urgent wing's procedures within hospitals and communication across low-specialty and high-specialty hospitals by creating chat groups. I first document that Código Infarto reduced mortality by 7% and increased transfers by 32%, but only on networks that had access to a tertiary level hospital that had significantly better capabilities. Further, I present a model that allows me to link the reduced form results to structural parameters and perform counterfactual policy analysis. The estimation exercise suggests that the communication channel is responsible for 89% of the effect. The results highlight the role that widespread and widely accessible technologies can play in improving healthcare, particularly in the developing country context.
- Link

The Impacto of Healthcare IT on Clinical Quality, Productivity and Workers

pending (Annual Review)

Joint with Joseph Doyle and John Van Reenen *2021*

- Adoption of health information and communication technologies (HICT) has surged over the past two decades and has the potential to transform healthcare delivery. We survey the medical and economic literature on the drivers of HICT adoption and its effects on productivity and the labor market. The evidence suggests that HICT improves clinical outcomes and lowers healthcare costs, but (i) the effects are modest so far, (ii) it takes time for these positive effects to materialize, and (iii) there is much variation in the impact, with many organizations seeing no benefits. These findings are consistent with studies outside of healthcare, which stress the importance of complementary factors (such as management practices and human capital) in determining the success of ICT investments. There is little econometric work directly investigating the impact of HICT on labor, but what there is suggests no substantial negative effects on employment and earnings. Overall, while healthcare is "exceptional" in many ways, we are struck by the similarities to the wider findings on ICT and productivity.
- Pending

The Impact of a Private Supplement to Public Health Care: The Mexico Diabetes Experiment

NBER Working paper series

Joint with Jonathan Gruber and Enrique Seira *2021*

- There are ongoing debates around the world over the value of private supplements to public health insurance systems. We investigate this issue in the context of one of the world's deadliest diseases, diabetes, and one of the countries with the worst diabetes problems in the world, Mexico. We implement a novel deniers randomization approach to cost-effectively provide a causal estimate of enrollment in private supplement to the free public health system. Our final sample of more than 1000 diabetics randomized into a large price subsidy for enrollment in the private plan is well balanced. We estimate enormous impacts of the private supplement, with HbA1c blood sugar levels falling by a full point (relative to a control mean of 8.5%), and to increase the share of those treated who are under control by 69%. We show that this effect arises through both improved treatment compliance and health behaviors, and that diabetes complications fall even in the short run. The net costs of this intervention are at most one-third of the gross costs due to offsetting public sector savings, and the health benefits are many multiples of gross costs. But the returns to private care do not appear to reflect more productive delivery of care per visit, which is comparable in a separate quasi-experimental analysis of public insurance; rather, effects arise through more attachment to medical care in the private alternative.
- Link

The Impact of New Technology on the Healthcare Workforce

Work of the Future Research Briefs

Joint with Joseph Doyle and John Van Reenen *2020*

- Dramatic improvements in information technology have the potential to transform healthcare delivery, and a key question is how such changes will affect the healthcare workforce of the future. In this brief, we present the state of knowledge of the effects of health information technology on the workforce. We first lay out the rapidly changing healthcare landscape due to the greater availability and use of information and communication technology (ICT) followed by a description of the evolution of employment, wages, and education across the wide variety of occupations in the healthcare sector since 1980. The healthcare sector has outperformed the rest of the economy and has proven resilient to the multiple downturns over the last four decades, although some groups have done much better than others. Next, we review the literature on the effects of ICT on productivity in terms of patient health outcomes and resource use, as well as the effects on healthcare expenditure. We find that there is evidence of a positive effect of ICT (e.g., especially electronic health records) on clinical productivity, but (i) it takes time for these positive effects to materialize; and (ii) there is much variation in the impact, with many organizations seeing no benefits. Looking at the drivers of adoption, we find that the role of workers is critical, especially physicians' attitudes and skills. Privacy laws, fragmentation, and weak competition are also causes of slow adoption. There is very little quantitative work that investigates directly the impact of new technology on workers' jobs, skills, and wages, but what there is suggests no substantial negative effects. Our own analysis finds no evidence of negative effects looking at aggregate data and hospital-level event studies. These findings are consistent with studies outside of healthcare, which stress the importance of complementary factors (such as management practices and skills) in determining the success of ICT investments. We conclude that management initiatives to increase the skills of workers will be required if the healthcare workforce and society more generally are to substantially benefit from the adoption of these powerful tools..
- Link

Risk-Profiling of Potential Diabetics at IMSS: A Logistic Regression Approach

CIESS Working Paper Series

Joint with Christian Norton, Oscar Sanchez, Kevin Schmidt, Carlos Tendilla

2015

- Modern public medicine is relying more and more on preventive rather than corrective action. This is happening because preventive care is proving to be not only cost-effective but also desirable, as it can reduce length of convalescence and treatment expenditures while allowing for better living conditions for patients and improving longevity. In this document we describe the methodological steps by which we are able to estimate the risk of being diagnosed with Type 2 Diabetes Mellitus on individuals that attended a medical clinic from Mexico's Institute for Social Security (imss) between 2012 and 2014. The results of this investigation lead to practical conclusions that show, for instance, that by applying our risk-profiling criteria for confirmatory laboratory test referral and without performing any additional medical tests, 50 thousand additional diabetes cases would have been detected, which means a 90% increase in diagnosis. Highlighting the public-policy relevance of these conclusions, and leveraging the structure of imss databases, we introduce a simple questionnaire that would allow risk-profiling to be applied to the population at large
- Link

Work in Progress

Why Patients Abandon Treatment?

MIT

Joint with Jonathan Gruber and Enrique Seira

2021-present

- A large share of patients with chronic diseases abandon treatment. Although there is a strong presumption that this hurts their health, we were unable to find a well powered study that estimates causal effects of abandonment on health. Our second RCT with 3,000 diabetic patients has several main objectives. First, to estimate the causal effect of staying in treatment longer, on the health of diabetic patients. In particular on their HbA1c levels, but also on their knowledge, their expectations of treatment effectiveness and of their cost of complying with treatment. Second, to find whether it is more cost effective to incentivize clients to stay ex-ante for staying, or to bring the abandoners back through a subsidy ex-post after they abandon. The later one may be more well targeted, but the former may create dynamic incentives to exert effort form the beginning of treatment and thus may generate less dropout through dynamic complementarities. Third, to investigate whether giving clients personalized information about diabetes and their health increases their knowledge about their health and causes them to stay longer in treatment. Furthermore, to test if giving them an incentivized exam on the information we provide increases their attention —as reflected in their knowledge—and further increases staying. Fourth, to investigate correlationally to what extent the probability of abandoning treatment increases after experiencing a negative income shock. To investigate correlationally if they leave after learning how to take care of their health by themselves. Finally, to assess whether or not they substitute to other health providers after they leave.
- AEA Registry

Effect of Information Technology on the Healthcare Workforce

MIT

Joint with Jioseph Doyle and John Van Reenen

2020-present

- Our literature review highlights how important the healthcare workforce is for health IT adoption and meaningful use and how adapting the current workforce organization will be necessary to fully extract the benefits from new technologies. Moreover, the review also shows that very little is known about the effect of healthcare IT on the workforce empirically. Understanding the effects of health-IT on the health workforce is paramount as the U.S has dramatically increased its health-IT adoption rates over the past decade, where HER adoption went from under 20% in 2007 to 90% by 2015.In this project, we explore the relationship between health IT adoption and the healthcare workforce causally by exploiting a novel law adoption and changes dataset. We Analyze the effects of adoption at the local labor market level, which enables us to track substitution patterns and overall effects at the industry level.