### ANDRÉS BARRIOS FERNÁNDEZ

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|-------------------------------|-------------------------------------------------------------------------------------------------------------------|--------------|
| EDUCATION                     | Ph.D.in Economics Thesis title: Essays in Economics of Education London School of Economics and Political Science | 2013-2019    |
|                               | M.Res. in Economics<br>London School of Economics and Political Science                                           | 2013-2015    |
|                               | M.Sc. in Engineering<br>Pontificia Universidad Católica de Chile                                                  | 2009-2010    |
|                               | B.Sc. in Engineering Pontificia Universidad Católica de Chile                                                     | 2003-2009    |
| RELEVANT<br>POSITIONS<br>HELD | Director<br>Human Development Lab. Universidad de Los Andes.<br>Santiago, Chile.                                  | 2024-present |
|                               | Assistant Professor<br>School of Business and Economics. Universidad de Los Andes.<br>Santiago, Chile.            | 2022-present |
|                               | DRCLAS Luksic Scholar<br>Harvard. Cambridge, MA, USA.                                                             | 2025         |
|                               | Postdoc Fellow<br>Department of Economics. MIT. Cambridge, MA, USA.                                               | 2021-2022    |
|                               | Research Affiliate IZA Institute of Labor Economics. Bonn, Germany.                                               | 2024-present |
|                               | Research Affiliate<br>Centre for Economics Policy Research (CEPR). London, UK.                                    | 2021-present |
|                               | Associate<br>Centre for Economics Performance (CEP), LSE. London, UK.                                             | 2019-present |
|                               | Senior Researcher<br>VATT Institute of Economic Research, Helsinki, Finland.                                      | 2019-2021    |
|                               | Research Assistant National Bureau of Economics Research. Cambridge, USA.                                         | 2018         |
| TEACHING<br>EXPERIENCE        | Assistant Professor<br>Universidad de los Andes                                                                   | 2022-present |
|                               | • ECN5900 Topics in Applied Microeconomics.                                                                       |              |
|                               | Graduate Teaching Assistant London School of Economics and Political Science                                      | 2014-2019    |
|                               | $\bullet$ EC212 Introduction to Econometrics (Summer School).                                                     |              |

- EC220 Introduction to Econometrics.
- EC221 Principles of Econometrics.
- EC270 Public Finance.
- EC325 Public Economics.
- Course manager (EC220).
- Academic Mentor.

Lecturer 2012-2013

School of Engineering, Pontificia Universidad Católica de Chile

• ICS1513 Economics Principles

### JOB MARKET PAPER

Elite Universities and the Intergenerational Transmission of Human and Social Capital (Accepted, American Economic Review) with C.Neilson and S.Zimmerman

Do elite colleges help talented students join the social elite, or help incumbent elites retain their positions? We combine intergenerationally-linked data from Chile with a regression discontinuity design to show that, looking across generations, elite colleges do both. Lower-status individuals who gain admission to elite college programs transform their childrens social environment. Children become more likely to attend highstatus private schools and colleges, and to live near and befriend high-status peers. In contrast, academic achievement is unaffected. Simulations combining descriptive and quasi-experimental findings show that elite colleges tighten the link between social and human capital while decreasing intergenerational social mobility.

### PUBLISHED PAPERS

O Brother, Where Start Thou? Sibling Spillovers on College and Major Choice in Four Countries (The Quarterly Journal of Economics) with A. Altmejd, M. Drlje, J. Goodman, M. Hurwitz, D. Kovac, C. Mulhern, C. Neilson and J. Smith.

Family and social networks are widely believed to influence important life decisions but causal identification of those effects is notoriously challenging. Using data from Chile, Croatia, Sweden, and the United States, we study within-family spillovers in college and major choice across a variety of national contexts. Exploiting collegespecific admissions thresholds that directly affect older but not younger siblings college options, we show that in all four countries a meaningful portion of younger siblings follow their older sibling to the same college or college-major combination. Older siblings are followed regardless of whether their target and counterfactual options have large, small or even negative differences in quality. Spillover effects disappear, however, if the older sibling drops out of college, suggesting that older siblings college experiences matter. That siblings influence important human capital investment decisions across such varied contexts suggests that our findings are not an artifact of particular institutional detail but instead a more generalizable description of human behavior. Causal links between the postsecondary paths of close peers may partly explain persistent college enrollment inequalities between social groups and suggest that interventions to improve college access may have multiplier effects.

Neighbors' Effects on University Enrollment (American Economic Journal: Applied Economics)

This paper provides causal evidence that close neighbors significantly influence potential applicants decision to attend university. I create a unique dataset combining detailed geographic information and individual educational records in Chile, and exploit the quasi-random variation generated by student loans eligibility rules. I find that potential applicants are significantly more likely to attend and complete university when their closest neighbor-defined as the closest individual applying to uni-

versity one year before-becomes eligible for a student loan and enrolls in university. This increase in enrollment is mediated by an increase in the probability of taking the admission exam and applying to university. The closest neighbor typically lives 0.09 km away, and neighbors influence decays with distance. My results highlight the importance of social influences for university enrollment decisions and suggest that financial aid and university access policies may have important spillover effects.

### Recidivism and Neighborhood Institutions: Evidence from the Rise of the Evangelical Church in Chile (Forthcoming, Journal of Labor Economics) with Jorge García-Hombrados.

This paper uses rich administrative data from Chile to provide causal evidence that the local institutions of the neighborhood to which inmates return after prison matter. Specifically, we show that the opening of an Evangelical church reduces twelve-month reincarceration rates among property crime offenders by 11 percentage points, an effect that represents a drop of 18% in the probability of returning to prison for this group of individuals. We discuss three classes of mechanisms that could drive these effects: promotion of Evangelism, provision of social support, and increased difficulty to commit crimes. Our analyses suggest that the social support that Evangelical churches offer to their communitiesi.e., charitable activities and alcohol and drug abuse rehabilitationis an important driver of their effects on recidivism. Evangelical churches also seem to make it more difficult to commit crimes by reducing the number of potential criminal partners in the neighborhood. Finally, we show that NGO openings also reduce recidivism. Organizations helping their beneficiaries to improve their earnings potential or to overcome alcohol and drug abuse problems reduce reincarceration rates by 11 and 10 percentage points, respectively. These results suggest that interventions that give recently released inmates access to local support networks could play an important role in encouraging desistance from crime.

## Teacher Value Added and Gender Gaps on Educational Outcomes (Economics of Education Review) with Marc Riudavets-Barcons.

This paper uses rich administrative data from Chile to estimate teacher value added (TVA) on test scores and on an index of educational attainment. We allow each teacher to have a different TVA for male and female students and show that differences in TVA explain an important part of the gender gaps we observe in test scores and in postsecondary education trajectories. We next exploit rich information on teaching practices and show that, at least in terms of the practices we observe, there do not seem to be important differences in what makes teachers effective for male and female students. We do find, however, significant associations between certain practices and teacher effectiveness, which suggest that some teaching strategies benefit all students independently of their gender. Finally, we also show that on average female teachers are more effective at teaching female students and that math teachers tend to be biased in favor of male students. Interestingly, teachers with smaller gender biases seem to be more effective for both, male and female students.

## It's Time to Learn: School Institutions and Returns to Instruction Time (Economics of Education Review) with G.Bovini.

This paper investigates whether the effects of a reform that substantially increased daily instruction time in Chilean primary schools vary depending on school institutions. Focusing on incumbent students and exploiting an IV strategy, we find that longer daily schedules increase reading scores at the end of fourth grade and that the benefits are greater for pupils who began primary education in no-fee charter schools rather than in public schools. We provide evidence that these two types of publicly subsidized establishments, which cater to similar students but differ in their degree of autonomy, expand the teaching input in different ways: to provide the additional

instruction time, no-fee charter schools rely more on hiring new teachers and less on increasing teachers working hours than public schools do.

**Peer Effects in Education** (Oxford Research Encyclopedia of Economics and Finance)

The identification of peer effects is challenging. There are many factors not related to social influences that could explain correlations among peers. This article discusses the main challenges for the identification of peer effects, describes some of the empirical strategies commonly used to overcome these challenges, and summarizes the main findings of the literature on peer effects in education. Peers have been shown to affect many important outcomes, including academic performance and educational trajectories. Confirming the existence of peer effects is important from a policy perspective. Both the cost-benefit analysis and the design of policies are likely to be affected by the existence of social spillovers. However, making general policy recommendations from the current evidence is not easy. The size of the peer effects documented in the literature varies substantially across settings and depends on how peers are defined and characterized. Access to better data and the ability to map social networks will facilitate investigating which peers and which characteristics matter the most in different contexts. Conducting more research on the mechanisms behind peer effects is also important. Understanding their drivers is central to incorporating them in designing new educational programs, identifying competing policies, and gaining a deeper understanding of the nature and relevance of different forms of social interactions for the youth.

WORKING PAPERS & ONGOING WORK

## Direct and Indirect Effects of Affirmative Action Programs in College Admissions with Carolina Allende and Jorge Rodríguez

This paper provides causal evidence that giving preferential access to college to talented students from disadvantaged backgrounds not only benefits them but also their younger siblings and neighbors. Eligibility for this program depends on students graduating from high school in the top 10% of their class. We thus overcome endogeneity concerns using a regression discontinuity design through which we compare the outcomes of individuals whose high school GPA places them marginally above and below of the top 10% of their class. We proceed in a similar way to estimate spillovers. We compare individuals with an older sibling or neighbor in the margin of qualifying for preferential admissions. Eligibility for preferential admissions increases college enrollment by 6.5 (17%) percentage points and college completion by 3.5 (12%) percentage points. The younger siblings and close neighbors of direct beneficiaries also benefit from the program. They become 1.9/1.7 percentage points more likely to attend and 1.6/1.0 percentage points more likely to complete college respectively. These indirect effects represent between 25% and 40% of the direct effects. Social spillovers of programs that expand access to college are not trivial and should be incorporated in the evaluation and design of this type of program.

# Closing Gaps in Higher Education Trajectories: Direct and Indirect Effects of Information and Personalized Counseling with Josefina Eluchans-Errázuriz and Fernanda Ramírez-Espinoza

This paper evaluates two interventions designed to help students to decide about their postsecondary educational trajectories in Chile. We implemented a large-scale RCT that reached around 27,000 high school senior students and followed them for two years after high school, combining rich survey and administrative data. Consistently with previous research, we find that providing information alone improves students understanding of the higher education system but does not make a difference in their probability of applying to or enrolling in college. In contrast, providing information

and counseling increases students probability of registering and taking the college admission exam by 13 percentage points, of applying for funding by 10 percentage points, and of enrolling in higher education by 8 percentage points. The design of the RCT—i.e., offering the mentorship program to only a few students in each class—also allows us studying spillovers of the program on the classmates and friends of treated students. We find evidence of large social spillovers. Despite not improving their understanding of the higher education system, the classmates of students in the mentorship program become 5 percentage points more likely to register and take the college admission exam. Nevertheless, they do not become more likely to apply to or enroll in higher education. Close friends of treated students do improve their understanding of the higher education system and become 5 percentage points more likely to apply to university and 4 percentage points more likely to enroll in higher education. These results shed some light on the mechanisms behind peer effects in educational choices and suggest that in some settings, social spillovers multiply the effect of policies designed to expand access to higher education.

The STEM Major Gender Gap: Evidence from Coordinated College Application Platforms Across Five Continents with Isaac Ahimbisibwe, Adam Altjmed, Georgy Artemov, Aspasia Bizopoulou, Martti Kaila, Jin-Tan Liu, Rigissa Megalokonomou, José Montalbán, Christopher Neilson, Jintao Sun, Sebastián Otero, and Xiaoyang Ye

This paper uses data from coordinated application and admissions systems in Australia, Brazil, Chile, China, Finland, Greece, Spain, Sweden, Uganda, and Taiwan to document differences in gender representation among talented students applying to STEM majors. These ten countries are very different in size, economic development, culture, gender norms, and geographic location. However, in all of them, university admission decisions rely on algorithms that allocate students to specific college-major combinations based on their academic performance when applying to university. We focus on students scoring in the top 10% of the university admission exam and show that female representation among STEM-major applicants varies from 24% in Uganda to 46% in Sweden. In the settings we study, these differences can be driven either by gender gaps in academic performance at the time of application or by gender gaps in the way these top scoring students submitted their applications. While we find some significant variation in female representation among top 10% scores—32.3% in Ugaqnda to 65.6% in Sweden—we find a remarkably stable gender gap in applications to STEM across countries—between 21 and 25 percentage points in all countries, but China, where it reaches 37%. These results indicate that i.) closing gaps in academic performance is not enough to eliminate inequality in college trajectories across gender groups and ii.) the gap in the way men and women make choices about major does not decrease significantly with economic development.

## Elite Universities and the Formation of Influential Politicians with Josefina Muoz, Christopher Neilson, Antonia Paredes, and Seth Zimmerman

This paper combines rich administrative data from Chile with a regression discontinuity design that exploits sharp admission cutoffs to show that elite university programs increase the probability of becoming an influential bureaucrat by 80%. They, however, do not affect the probability of competing in elections for influential positions (e.g., President, Governor, member of Congress). Elite universities also seem to influence the political coalition for which bureaucrats work. The alumni of the University of Chile are more likely to work for center-left governments, while the alumni of the Catholic University for center-right. Although the representation of social groups in elite university programs is very unequal, their effects are larger for individuals from mid-SES backgrounds. This suggests that expanding access to elite university

programs to these groups could help to improve their representation in the political elite.

## Gender Differences in the Intergenerational Transmission of Higher Education Trajectories with Christopher Neilson and Seth Zimmerman

This paper exploits intergenerational linked data from Chile to investigate how parents' higher education trajectories impact the colleges and majors to which their children apply. We overcome endogeneity concerns by exploiting the sharp admission cutoffs generated by centralized admissions in a regression discontinuity design framework. We find that children are significantly more likely to apply to a university and to a specific university-major combination if one of their parents was admitted to it. While the selectivity and earnings associated to their parents' university degree do not make a significant difference for daughters, sons only follow their parents if they attended a high-earnings and high-selectivity university degree.

# The Aftermath of a Superstar Firm Collapse: Labor Market Trajectories and Entrepreneurship following Nokias Decline with Jarkko Harju, Tuomas Matikka and Sami Remes

The rapid decline of Nokia mobile phone operations in 20092012 left many high-skilled workers looking for new career paths. We use rich, matched employer-employee data covering all Nokia workers and other individuals in Finland to study how this sudden labor market shock affected displaced workers. We find that workers displaced from Nokia experienced large and long-lasting losses in the labor market. They suffered large drops in earnings and were more likely to be unemployed than similar workers displaced from other firms even three years after the mass layoffs took place. These losses, however, were attenuated by an important increase in entrepreneurship. We find that a distinctively large share of the high-skilled Nokia workers established a new business after being displaced (9% compared to 3% for displaced workers from other firms). This effect was amplified by generous start-up grants provided by Nokia since 2011 as a part of Bridge, their global support program for displaced workers. The larger number of entrepreneurs does not seem to have resulted in lower entrepreneurial quality. The firms founded by former Nokia employees perform similarly to those founded by similar workers displaced from other firms or to all those established in Finland during the decline of Nokia. This result suggests that encouraging highskilled displaced workers to become entrepreneurs can reduce the costs of mass layoffs, as it increases the number of established firms without significantly affecting their performance.

## Effects of Community-Based Police on Crime, Crime Perception, and Trust with Jorge Garca-Hombrados and Daniel Prez-Parra

While the effect of resources on police effectiveness has been widely studied in the literature, less is known about how to organize these resources effectively. This paper examines the impact of a geographic specialization program that reorganized police forces to reduce the catchment area of police units. We exploit rich administrative and survey data from Chile and conduct a differences-in-differences analysis exploiting the staggered adoption of the program to show that the geographic specialization of police forces enhanced police effectiveness across various dimensions, increased public trust in the police, and reduced household investments in private security measures.

#### REFERENCES

### Steve Pischke

London School of Economics

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### Christopher Neilson

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2025

### Seth Zimmerman

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### AWARDS, FELLOWSHIPS, AND GRANTS

| Teaching Award, School of Business and Economics                | 2024      |
|-----------------------------------------------------------------|-----------|
| Luksic Visiting Scholar, DRCLAS Harvard University (USD 39,000) | 2025      |
| Fondecyt, ANID (USD 110,000)                                    | 2022      |
| OP Research Foundation (USD 30,000)                             | 2022      |
| Yrjo Jahnsson Foundation (USD 45,000)                           | 2022      |
| Spencer Foundation Small Research Grant (USD 37,500)            | 2022      |
| Yrjo Jahnsson Foundation (USD 55,000)                           | 2021      |
| MueveTP Project Incubator. Fundación Luksic (USD 150,000)       | 2021      |
| Department of Economics Fellowship, LSE.                        | 2014-2018 |

### COMPUTER. SKILLS

ArcGIS, C++, Matlab, Python, R, Stata.

**LANGUAGES** 

Spanish (native), English (fluent).

#### **PROFESSIONAL** Referee:

**SERVICE** 

Economica, Economic Journal, Economics of Education Review, Journal of Development Economics, Journal of Human Capital, Journal of Human Resources, Journal of Political Economy: Microeconomics, Journal of Public Economics, Journal of Policy and Management, Nature, Review of Economics and Statistics, Review of Economic Studies.

Scientific Committees:

Twenty-Ninth Annual Meeting of the Society of Labor Economists (SOLE)

Organization of Academic Events:

First Workshop on Economics of Education, Valle Nevado, Chile August, 2023. Second Workshop on Economics of Education, Valle Nevado, Chile August, 2024. Third Workshop on Economics of Education, Valle Nevado, Chile August, 2025. Website.

### **CONFERENCES** NBER Summer Institute AND SEMINARS Cambridge, United States.

NBER Education Group Spring Meeting

2025

Stanford, United States.

| Department of Economics, Tulane University New Orleans, United States.                  | 2025 |
|-----------------------------------------------------------------------------------------|------|
| Ski and Labor 2025<br>Film Laax, Switzerland.                                           | 2025 |
| 46th Meeting of the Brazilian Econometric Society<br>Natal, Brazil.                     | 2024 |
| NBER Education Group Fall Meeting<br>Cambridge, US.                                     | 2024 |
| European Association of Labor Economist Annual Meeting<br>Bergen, Norway.               | 2024 |
| Second Workshop on Economics of Education Valle Nevado, Chile.                          | 2024 |
| RIDGE, Impact Evaluation Network Meeting Santiago, Chile                                | 2024 |
| Workshop on Policy Evaluation Santiago, Chile.                                          | 2024 |
| PUC Rio do Janeiro Rio do Janeiro, Brazil.                                              | 2024 |
| INSPER Sao Paulo, Brazil.                                                               | 2024 |
| Fundacion Getulio Vargas Sao Paulo, Brazil.                                             | 2024 |
| Cowles Foundation Summer Conference. Labor Economics.  New Haven, CT, US.               | 2024 |
| NBER Education Group Spring Meeting Chicago, IL, US.                                    | 2024 |
| Annual Meeting of the Society of Labor Economics Portland, OR, US.                      | 2024 |
| ASSA 2024 Annual Meeting San Antonio, TX, US.                                           | 2024 |
| NBER Education Program Meeting Cambridge, MA, US.                                       | 2023 |
| Workshop on Educational Choices and Transitions in Secondary & Higher Ed Paris, France. | 2023 |
| Workshop on Economics of Education<br>Valle Nevado, Chile.                              | 2023 |
| Helsinki Crime Workshop<br>Helsinki, Finland.                                           | 2023 |
| Leuven Summer Event: Education Economics<br>Leuven, Belgium.                            | 2023 |
| 7th IZA Workshop: The Economics of Education Online.                                    | 2022 |
| NBER Summer Institute: Children<br>Cambridge, MA, US.                                   | 2022 |
| NBER Summer Institute: Urban Economics<br>Cambridge, MA, US.                            | 2022 |
| Econometrics Society: North America Meeting<br>Miami, FL, US.                           | 2022 |

| Society of Labor Economists Meeting Minneapolis, US.                                        | 2022 |
|---------------------------------------------------------------------------------------------|------|
| CESifo Area Conference on Labor Economics<br>Munich, Germany.                               | 2022 |
| NBER, Economics of Education Spring Meeting<br>Stanford, US.                                | 2022 |
| WEAI 96th Annual Conference<br>Online.                                                      | 2021 |
| Royal Economic Society 2021 Annual Meeting<br>Online.                                       | 2021 |
| 5th IZA Workshop: The Economics of Education<br>Bonn, Germany.                              | 2020 |
| Econometric Society Virtual World Congress. Milan, Italy.                                   | 2020 |
| 30th European Economic Association Congress.<br>Rotterdam, Netherlands.                     | 2020 |
| Sixth LEER Conference on Education Economics<br>Leuven, Belgium.                            | 2020 |
| XXVII Meeting on Public Economics<br>Barcelona, Spain.                                      | 2020 |
| LEER Workshop: Improving Quality and Returns to Education<br>Leuven, Belgium.               | 2019 |
| Econometric Society Winter Meeting. Naples, Italy.                                          | 2018 |
| 43rd Simposio de la Asociación Espanola de Economía (SAEe).<br>Madrid, Spain.               | 2018 |
| 3rd IZA Workshop: The Economics of Education.<br>Bonn, Germany.                             | 2018 |
| European Doctoral Program Jamboree.<br>Florence, Italy.                                     | 2018 |
| Annual Conference of the European Association of Labor Economists. St. Gallen, Switzerland. | 2017 |
| International Workshop on Applied Economics of Education.<br>Catanzaro, Italy.              | 2017 |
| LEER Workshop on Education Economics.<br>Leuven, Belgium.                                   | 2017 |
|                                                                                             |      |