Carmen Armas Montalvo

+1 763-438-3877
armas013@umn.edu

Education

Ph.D. in Applied Economics 2022 – Present
University of Minnesota Minneapolis, USA

Master's Degree in Economics | ***(First in Cohort, 1/16)*** 2014 – 2016
Pontifical Catholic University of Peru Lima, Peru

Bachelor's Degree in Economics 2008 – 2013
Pontifical Catholic University of Peru Lima, Peru

Specialization in Applied Statistics 2021
National Institute of Statistics and Informatics (INEI) Lima, Peru

Skills

Technical skills: Econometric modeling and causal inference
Research fields: Labor economics, informality, worker sorting, and market allocation in developing economies.
Software and programming language: Stata, R, ArcGis, Qgis, Julia, Python, and LaTeX.
Languages: Spanish (Native), English (Fluent), and French (reading proficiency).

Research and Professional Experience

Hubert H. Humphrey School of Public Affairs, University of Minnesota Aug 2024–May 2026
Graduate Research Assistant - (Supervisor: Caroline Krafft) Minneapolis, Minnesota

- Co-author of a working paper on labor mismatch in Egypt; currently preparing for journal submission.
- Conducted econometric analyses to examine labor market mismatch in Egypt, including skill mismatch, educational mismatch, and occupational aspirations.
- Conducted econometric analyses and contributed to model specification and interpretation of results to examine informality dynamics using a job-ladder framework and panel data.

Department of Applied Economics, University of Minnesota Jan 2024 – Aug 2024
Graduate Research Assistant (Supervisor: Joe Ritter) Minneapolis, Minnesota

- Implemented and evaluated a novel Difference-in-Differences estimator in R, incorporating cross-validation techniques.
- Assessed estimator performance using open-access replication datasets.
- Produced comparative analysis of labor force participation patterns across countries.

Hubert H. Humphrey School of Public Affairs (UMN) Jun 2023 – Aug 2023
Data Analyst - Direct Supervisor: Christina Ewig Minneapolis, Minnesota

- Reconstructed and standardized Stata workflows to analyze administrative and survey data for the 2024 Status of Women & Girls+ in Minnesota report.
- Produced statistical analyses and validated key indicators for publication.

Government of Peru Dec 2017 – Aug 2022
Data and Policy Analyst in the Ministry of Labor and Employment Promotion Lima, Peru

- Contributed to the design of Peru's National Decent Work Policy, analyzing labor market frictions and employment quality.
- Classified occupations using task-based typologies (routine vs. non-routine) to study skill allocation.
- Developed a predictive model of job quality risk using LASSO and ROC analysis.

Impact Evaluation Specialist in the Ministry of Education

- Designed and implemented quasi-experimental evaluations using administrative education data.

Group for the Analysis of Development (GRADE) Jun 2014 – Sep 2017
Research Assistant Lima, Peru

- Estimated rural poverty using small-area estimation techniques combining census and survey data.
- Applied spatial econometric models (SARAR, SARE) to analyze geographic spillovers.
- Evaluated the impact of tax exemptions on economic activity using satellite night-light data and household panel surveys.

Conferences and Presentations

Mismatch in the Egyptian labor market Jun 2026
2026 Africa Meeting of the Econometric Society El Cairo, Egypt

The Impact of Mobile Phones on Working Conditions in Peru May 2026
XXIII RIDGE FORUM – Labor Workshop Cave Hill, Barbados

Did "Ni Una Menos" increase intra-household bargaining power? Aug 2023
1st UFPR Winter School on Economic Development Curitiba, Brazil

Can the school entrance age explain lower academic performance? Evidence from Peru. Nov 2019
LACEA Annual Meeting Puebla, Mexico

Grants, Fellowships, Honors and Awards

Preparing Future Faculty (PFF) Summer Institute Fellow, University of Minnesota 2026
Selected and funded to complete an intensive teaching and learning program for future faculty

Selected Participant, Price Theory Summer Camp, University of Chicago 2026
Selective program on price theory, applying core economic tools to real-world problems

Summer School Fellow, RIDGE 2026
Selective summer program on frontier research in economics for outstanding graduate economists

Annual Funding Competition - Global Affairs Canada/CIES 2017
"Determinants of being a Peruvian criminal". With Walter Noel, C$5,000

Think Tank Initiative - IDRC/GRADE 2016
"Social interaction and crime: a regional crime analysis of Peru". With Daniel Velasquez, US$3,000

Selected Research Projects

Mobile Phone Expansion and Working Conditions in Peru: Difference-in-differences analysis exploiting telecom entry in 2006 to estimate impacts on employment quality and informality. *(Work in progress)*
Mismatch in the Egyptian labor market (with Caroline Krafft): Analyzes labor mismatch in Egypt, documenting structural and aspirational gaps, gender constraints, and pervasive over-education, with implications for job creation and education policy. *(Global Labor Organization Discussion Paper No. 1739)*

Other Publications

* **Armas-Montalvo, C.** and Escobal, J. (2018). Economic inclusion and territorial taxation: the case of high Andean tax exemptions.
* **Armas-Montalvo, C.** and Noel, W. (2017). Determinants of being a Peruvian criminal: social disorganization versus social learning.
* **Armas-Montalvo, C.** and Velazquez, D. (2017). Social interaction and crime: a regional crime analysis of Peru. 2017

Teaching Experience

R Programming Instructor — Summer 2024 & 2025
National Institute of Statistics and Informatics (INEI) — Lima, Peru

Graduate Instructor, Mathematics Review Course — Summer 2024
Department of Applied Economics, University of Minnesota — Minneapolis, USA

Instructor (undergraduate level) — 2013-2022
Pontifical Catholic University of Peru & San Martín de Porres University — Lima, Peru
Courses: Econometrics, Applied Public Economics, Stata, R, and Mathematics.

References

- Caroline Krafft
- Christina Ewig
- Paul Glewwe
- Joe Ritter