

# Miguel Poblete Cazenave

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## CONTACT INFORMATION

Schlossplatz 1  
Laxenburg, A-2361  
Austria

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## RESEARCH INTERESTS

Economic Development and Inequality, Demographic Economics, Labor Economics, Energy Economics, Applied Econometrics, Structural Econometrics, Computational Economics, Machine Learning, Decision Theory and Modeling, Forecasting, Scenario Development

## RESEARCH EXPERIENCE

- 2017 - International Institute for Applied Systems Analysis - *Laxenburg, Austria*  
Research Scholar, Energy, Climate, and Environment Program
- 2016 Wittgenstein Centre for Demography and Global Human Capital - *Vienna, Austria*  
Visiting Researcher, Vienna Institute of Demography
- 2015 International Institute for Applied Systems Analysis - *Laxenburg, Austria*  
Young Scientist Summer Program (IIASA-YSSP), World Population Program
- 2012 - 2013 BBVA Research - *Santiago, Chile*  
Principal Economist, Latin American Coordination
- 2012 BBVA Research - *Santiago, Chile*  
Pensions Economist for Chile
- 2009 - 2011 Universidad de Santiago de Chile - *Santiago, Chile*  
Research Assistant, Department of Economics

## TEACHING EXPERIENCE

State University of New York at Stony Brook, 2013 – 2017

### *Primary Instructor*

Labor Economics	Fall 2016
Intermediate Microeconomics	Spring 2016

### *Teaching Assistant*

Econometrics (Graduate Level)	Spring 2017
Intermediate Microeconomics	Fall 2015
Intermediate Macroeconomics	Fall 2014, Spring 2015
Introduction to Economics	Fall 2013, Spring 2014

Universidad de Santiago de Chile, 2006 – 2010

### *Teaching Assistant*

Dynamic Macroeconomics	Spring 2009, Fall 2010
Microeconomics	Fall 2008, Spring 2008, Fall 2009
Fundamentals of Industrial Informatics	Fall 2006, Spring 2006, Fall 2007, Spring 2007, Fall 2008

## EDUCATION

State University of New York at Stony Brook

- Ph.D., Economics, 2018

*Thesis title:* Essays on Labor and Demographic Economics

*Thesis committee:* Warren C. Sanderson (advisor), Christopher Flinn (co-advisor), Mark R. Montgomery, Meta Brown

New York University

- Visiting Ph.D. Student, 2015

University of Rochester

- M.A., Economics, 2012

Universidad de Santiago de Chile

- Industrial Engineer (professional degree, equiv. six-year post-master's degree), 2010

*Mémoire Title:* "Towards a Support Tool for the Decision Making of Sales Estimation for the Steel Company GERDAU AZA" with Matías Cáceres

- B.Sc., Engineering, 2009

## PUBLICATIONS

**M. Poblete-Cazenave**, S. Pachauri, E. Byers, A. Mastrucci, and B. van Ruijven (2021) Global scenarios of access to household energy services. Accepted with Minor Revisions, *Nature Energy*

**M. Poblete-Cazenave** (2021) Simulating the Long-Term Impacts of the COVID-19 Pandemic on the Sustainability of the Population-Economy-Environment Nexus. Accepted with Minor Revisions, *Economics of Disasters and Climate Change*.

**M. Poblete-Cazenave**, S. Pachauri (2021) A Model of Energy Poverty and Access: Estimating Household Electricity Demand and Appliance Ownership. *Energy Economics*. DOI: 10.1016/j.eneco.2021.105266

A. Dagnachew, **M. Poblete-Cazenave**, S. Pachauri, A. Hof, B. van Ruijven and D. Van Vuuren (2020) Integrating Energy Access, Efficiency and Renewable Policies: A Model-based Analysis. *Environmental Research Letters*. DOI: 10.1088/1748-9326/abcbb9

K.F. Davis, A. Chhatre, N.D. Rao, D. Singh, S. Ghosh-Jerath, A. Mridul, **M. Poblete-Cazenave**, N. Pradhan, and R. DeFries (2019) Assessing the sustainability of post-Green Revolution cereals in India. *Proceedings of the National Academy of Sciences (PNAS)*. DOI: 10.1073/pnas.1910935116.

N.D. Rao, **M. Poblete-Cazenave**, R. Bhalerao, K.F. Davis and S. Parkinson (2019) Spatial analysis of energy use and GHG emissions from cereal production in India. *Science of the Total Environment*. DOI: 10.1016/j.scitotenv.2018.11.073.

**M. Poblete-Cazenave**, S. Pachauri (2018) A Structural Model of Cooking Fuel Choices in Developing Countries *Energy Economics*. DOI: 10.1016/j.eneco.2018.09.003.

D.L. McCollum, W. Zhou, C. Bertram, H.S. de Boer, V. Bosetti, S. Busch, J. Després, L. Drouet, J. Emmerling, M. Fay, O. Fricko, S. Fujimori, M. Gidden, M. Harmsen, D. Huppmann, G. Iyer, V. Krey, E. Kriegler, C. Nicolas, S. Pachauri, S. Parkinson, **M. Poblete-Cazenave**, P. Rafaj, N.D. Rao, J. Rozenberg, A. Schmitz, W. Schoepp, D. van Vuuren and K. Riahi (2018) Energy investment needs for fulfilling the Paris Agreement and achieving the Sustainable Development Goals. *Nature Energy*. DOI: 10.1038/s41560-018-0179-z.

## WORKING PAPERS

S. Pachauri, **M. Poblete-Cazenave**, A. Aktaş, M. Gidden (2021) Access to clean cooking services in a COVID-19 world. Resubmitted to *Nature Energy*

A. Aktaş, **M. Poblete-Cazenave**, S. Pachauri (2021) Quantifying the impacts of clean energy transition on future health-age trajectories in South Africa. Under Review *Environmental Research Letters*

A. Aktaş, **M. Poblete-Cazenave**, S. Pachauri and M.X. Sanmartin (2021) Quantifying the impact of non-clean cooking technologies on health: The case of India.

**M. Poblete-Cazenave**, A. Aktaş, S. Pachauri (2021) Comparison of Empirical Approaches to Energy Demand Scenarios with Structural Changes: The Case of South Africa.

A. Mastrucci, B. van Ruijven., **M. Poblete-Cazenave**, S. Pachauri, E. Byers (2021) Global scenarios of residential heating and cooling energy demand.

E. Rovenskaya, K. Aghababaei Samani, A. Baklanov, T. Ermolieva, C. Folberth, S. Fritz, Hadi, V. Javalera-Rincon, A. Krasovskii, F. Laurien, **M. Poblete-Cazenave**, T. Schinko, M. Smilovic and P. Zebrowski (2019) Artificial Intelligence and Machine Learning for Systems Analysis of the 21st Century. *IIASA Working Paper WP-19-010*.

**M. Poblete-Cazenave**, W.C. Sanderson (2015) A Dismal Future? Towards a New Model of Labor Market Dynamics based on Evolving Demographic Variables. *IIASA Interim Report IR-15-017*.

## WORK IN PROGRESS

“A Module to Estimate Residential Energy Demand for the MESSAGEix Integrated Assessment Model”, with A. Mastrucci, J. Min, S. Pachauri and B. van Ruijven.

“Assessing the land-energy nexus in Southern Africa: An integrated assessment and scenario approach” with M. Van Dijk, A. Palazzo, P. Havlik and S. Pachauri

“Downscaling Income and Inequality Scenarios at Subnational level for the Shared Socioeconomic Pathways” with A. Aktaş, M. Gidden, E. Byers and N.D. Rao

“Reputation Building, Inequality and Network Size”.

“A Generalized Retirement Model under Changing Survival Regimes: A Cross-Country/Cross-Gender Analysis”.

“Labor Force State Transitions and their Effect on Retirement Outcomes”.

“An Empirical Comparison of Farsighted vs Myopic Models of Life-Cycle Job Search and Retirement”, with A. Aktaş.

“Education and Retirement Choices in a Structural Model with Heterogenous Schooling Effort, Ability and Longevity” with A. Aktaş, M. Sánchez-Romero and A. Fűrnkranz-Prskawetz

“Models of Household Interaction and Their Effects on Retirement” with A. Aktaş

## NON-PEER REVIEWED PUBLICATIONS

“Integrated Solutions for Water, Energy and Land Progress report”, 2017, 2018 (United Nations Industrial Development Organization (UNIDO) and International Institute for Applied Systems Analysis (IIASA))

“An Overview of the Experience with Banking Transaction Taxes in Latin America”, 2012 (BBVA Research Report).

“Latin America Economic Outlook”, 2012, 2013 (BBVA Research Report).

“Paraguay Economic Outlook”, 2012, 2013 (BBVA Research Report).

## AWARDS AND FELLOWSHIPS

Summer Research Fellowship, Wittgenstein Centre for Demography and Global Human Capital, 2016.  
Research Fellowship for the Young Scientist Summer Program at International Institute for Applied Systems Analysis, 2015.  
Full Tuition Scholarship & Teaching Assistantship, State University of New York at Stony Brook, 2013 – 2018.  
Full Tuition Scholarship & Fellowship, University of Rochester, 2010 – 2011.  
Undergraduate Tuition Scholarship, Universidad de Santiago de Chile, 2005 – 2010.

## REFeree EXPERIENCE

Economics of Disasters and Climate Change, Energy Economics, Resource and Energy Economics, Scientific Data

## CONFERENCES AND INVITED TALKS

ENERGYA 1st Scientific Workshop (Online Virtual Workshop, 2021).  
Joint IIASA-RITE Virtual Expert Dialogue on Energy Demand changes Induced by Technological and Social innovations (EDITS) (Online Virtual Conference, 2020).  
Integrated Assessment Modeling Consortium, Thirteenth IAMC Annual Meeting, (Online Virtual Conference, 2020).  
International Institute for Applied Systems Analysis, Artificial intelligence and Machine Learning for Systems Analysis of the 21st Century (Laxenburg, Austria 2019).  
Population Association of America Annual Conference (Austin, USA, 2019)  
International Energy Workshop (Gothenburg, Sweden, 2018)  
Population Association of America Annual Conference (Denver, USA, 2018) The International Institute for Applied Systems Analysis -YSSP 40th Anniversary Event (Laxenburg, Austria 2017).  
Vienna Institute of Demography Colloquium (Vienna, Austria, 2016).  
The International Institute for Applied Systems Analysis - YSSP Colloquium (Laxenburg, Austria, 2015).  
Course on International Negotiations of Financial Services and other selected Topics, Central Bank of Paraguay (Asunción, Paraguay, 2013).  
Regional Seminar on Foot and Mouth Disease, World Organization for Animal Health (Asunción, Paraguay, 2013).

## COMPUTER SKILLS

<i>Main Working Languages</i>	C, Python, R
<i>Other Languages</i>	Java, Julia, C++, C#, Perl, FORTRAN, PHP, SQL
<i>Software</i>	STATA, SAS, Gretl, Maple, Matlab, Mathematica, GAMS, Lingo, Lindo, Haver, L <sup>A</sup> T <sub>E</sub> X, Linux

## LANGUAGES

Spanish(Native), English(Fluent), German (B1).