

CONTACT INFORMATION	<p>Centro de Investigación Económica Camino a Santa Teresa No. 930 Col. Héroes de Padierna Ciudad de México 10700 MEXICO</p>	<p><i>Office:</i> +52 55 5628 4000 ext.2957 <i>Email:</i> shaun.mcrae@itam.mx <i>WWW:</i> www.sdmcrae.com</p>
RESEARCH INTERESTS	<p>Energy Economics Environmental Economics Industrial Organization</p>	
ACADEMIC APPOINTMENTS	<p><b>ITAM</b> Assistant Professor Centro de Investigación Económica and Department of Economics  <b>University of Michigan</b> Assistant Professor, Department of Economics  <b>Stanford University</b> Visiting Scholar, Program on Energy and Sustainable Development  <b>University of California, Berkeley</b> Visiting Scholar, Energy Institute at Haas</p>	<p>2016–          2010–2016       Fall 2013</p>
EDUCATION	<p><b>Stanford University</b>, Stanford, CA Ph.D., Economics M.A., Economics  <b>University of Auckland</b>, Auckland, New Zealand B.Sc.(Hons.) (First Class), Mathematics  <b>University of Otago</b>, Dunedin, New Zealand B.Com.(Hons.) (First Class), Economics</p>	<p>          2010 2010       1998    1997</p>
WORKING PAPERS	<p>“Efficiency and Equity Effects of Electricity Metering: Evidence from Colombia”. “Electricity Pricing for the Energy Transition” (with Frank Wolak). “Reliability Options in Renewable-Dominated Electricity Markets” (with Frank Wolak). “Why Are Connection Charges So High? An Analysis of the Electricity Sector in Sub-Saharan Africa” (with Moussa Blimpo and Jevgenijs Steinbuks).</p>	

PUBLISHED  
PAPERS

- “Competitive Effects of Entry in Gasoline Markets” (with Lucas Davis and Enrique Seira). Accepted at *Journal of Industrial Economics*.
- “Fueling Alternatives: Gas Station Choice and the Implications for Electric Charging” (with Jackson Dorsey and Ashley Langer), *American Economic Journal: Economic Policy*, February 2025.
- “Residential Electricity Consumption and Adaptation to Climate Change by Colombian Households”, *Economics of Disasters and Climate Change*, 2023, Vol. 7, 253–279.
- “Retail Pricing in Colombia to Support the Efficient Deployment of Distributed Generation and Electric Stoves” (with Frank Wolak), *Journal of Environmental Economics and Management*, 2021, 102541.
- “Self-Regulation vs State Regulation: Evidence from Cinema Age Restrictions” (with Ryan Lampe), *International Journal of Industrial Organization*, 75, 2021, 102708.
- “An Economic Perspective on Mexico’s Nascent Deregulation of Retail Petroleum Markets” (with Lucas Davis and Enrique Seira), *Economics of Energy and Environmental Policy*, 8(2), 2019, 181–199.
- “Infrastructure Quality and the Subsidy Trap”, *American Economic Review*, 105(1), January 2015, 35–66.
- “Testing the convergence hypothesis: a new approach” (with Erkin Bairam), *Economics Letters*, 1999, v.64: pp. 351–355.

OTHER  
PUBLICATIONS

- “Diagnosing the Causes of the Recent El Niño Event and Recommendations for Reform” (with Frank Wolak).
- “Book review: ‘The Economics of Electricity Markets: Theory and Policy’”, *Journal of Economic Literature*, 2014, 52(2), 554–5.
- “How Do Firms Exercise Unilateral Market Power? Evidence from a Bid-Based Wholesale Electricity Market,” (with Frank Wolak), in *Manufacturing Markets: Legal, Political and Economic Dynamics*, Eric Brousseau and Jean-Michel Glachant (eds), Cambridge University Press, 2014.
- “Merger Analysis in Restructured Electricity Supply Industries: The Proposed PSEG and Exelon Merger (2006),” (with Frank Wolak), in *The Antitrust Revolution: Economics, Competition and Policy*, John E. Kwoka and Lawrence J. White (eds), Oxford University Press, 2009.

OLDER WORKING  
PAPERS

- “Crude Oil Price Differentials and Pipeline Infrastructure” (NBER Working Paper No. 24170).
- “Market Power in a Hydro-Dominated Wholesale Electricity Market” (with Frank Wolak).

CONFERENCE  
AND SEMINAR  
PRESENTATIONS

“Price Perceptions and Electricity Demand with Nonlinear Prices”  
(with Robyn Meeks).

“Reliability, Appliance Choice, and Electricity Demand”.

“Step on It: A New Approach to Improving Vehicle Fuel Economy”  
(with Ashley Langer).

“Vertical Integration and Price Differentials in the U.S. Crude Oil Market”.

**2025:** ASSA Annual Meeting, LAERE First Congress.

**2024:** ASSA Annual Meeting, Toulouse Conference on the Economics of Energy and Climate, IAEE Annual Conference, Monash University conference on Market Design to Support a Low-Cost and Reliable Energy Transition, NBER Distributional Consequences of New Energy Policies (discussant), Southern Methodist University, RIDGE Forum on Environmental Economics.

**2023:** UC San Diego/ITAM workshop, Inter-American Development Bank, CAF, AERE Summer Conference, SETI pre-conference workshop, EAERE Summer Conference, Notre Dame-ITAM PODER mini-conference, Economics of Low Carbon Markets workshop, LACEA, RIDGE Forum on Environmental Economics.

**2022:** ASSA Annual Meeting, International Industrial Organization Conference, AERE Summer Conference, Sustainable Energy Transitions Initiative annual meeting, Environment for Development annual meeting, USAEE/IAEE North American Conference, RIDGE Forum on Industrial Organization.

**2021:** ASSA Annual Meeting, ADBI-IFS Conference on Sanitation and Development (discussant).

**2020:** ASSA Annual Meeting, SETI annual meeting (discussant), AERE summer meeting, EAERE summer meeting, NBER Summer Institute Industrial Organization meeting.

**2019:** Inter-American Development Bank, NBER Environmental and Energy Economics Program Meeting (discussant), POWER Conference on Energy Research and Policy, International Industrial Organization Conference, Workshop on Energy Markets in Mexico, Sustainable Energy Transitions Initiative annual meeting, NBER Economics of Electricity Markets and Regulation Workshop, Becker Friedman Institute New Developments in Structural Econometrics and Policy Analysis conference, Toulouse Conference on the Economics of Energy and Climate, Fundação Getúlio Vargas EPGE, Fundação Getúlio Vargas CERI, PUC-Rio, Energy Policy Research Conference (Boise State), University of Southern California, OPIS Mexico-U.S. Petroleum Summit, University of California Davis, USAEE/IAEE North American Conference, Environment for Development annual meeting, Infrastructure in the Digital Era #Infra4Dev conference (Toulouse).

**2018:** ASSA Annual Meeting, CIDE Santa Fe, IAEE International Conference, Environmental Taxation v Other Approaches workshop at University of Maryland (discussant), Occasional Workshop in Environmental and Resource Economics (discussant).

sant), Inter-American Development Bank, CIDE Aguascalientes, Economics of Low Carbon Markets workshop.

**2017:** Energy Summit Centroamérica 2017 (panelist), International Industrial Organization Conference, Sustainable Energy Transitions Initiative workshop, NBER Hydrocarbon Infrastructure and Transportation Conference, AERE Summer Conference, EAERE annual conference, Bolivian Conference on Development Economics.

**2016:** AERE Summer Meeting, Mannheim Energy Conference, NBER Environmental and Energy Economics meeting, World Bank.

**2015:** ASSA Annual Meeting, ALADEE conference, International Industrial Organization Conference, SITE workshop, NBER Hydrocarbon Infrastructure and Transportation meeting, UM/MSU/WMU Energy and Environment Day, Latin American Environmental and Energy workshop at CIDE, University of Calgary, LACEA annual meeting, PUC-Chile, TE3 transportation conference, University of Chicago Booth, University of Maryland, Clemson University, ITAM.

**2014:** University of Michigan, International Industrial Organization Conference, Energy Institute at Haas Energy Camp, SITE workshop, World Bank, Heartland workshop, LACEA annual meeting.

**2013:** Cornell Energy and Environmental workshop (discussant), SITE workshop, Energy Institute at Haas, AERE Summer Meeting, University of California Davis, Economics of Low Carbon Markets workshop.

**2012:** ASSA Annual Meeting (discussant), University of Michigan, LACEA annual meeting, DePaul University, CFSP IO/Development workshop, AERE summer meeting.

**2011:** ASSA Annual Meeting, Chicago-RFF Energy Symposium (discussant), UM/MSU Energy and Environment Day, Energy Institute at Haas Energy Camp, Cowles Foundation Structural Micro Summer Conference.

**2010:** Clemson University, Energy Institute at Haas Energy Camp, IFPRI, Indiana University SPEA, Michigan Development Day, Michigan State University, Motu, Resources for the Future, University of Michigan, University of Michigan Erb Institute, University of North Carolina, Washington St. Louis (Olin).

## TEACHING

### ITAM

Eco 35141: Energy Markets and Policy	2016
Master in Public Policy	
Energy Economics	2017–19, 2021
Undergraduate / Master in Applied Economics	
Environmental and Natural Resource Economics	2017, 2018, 2020
Master in Economic Theory	
Economics Research Seminar	2017–20
Undergraduate	

Applied Economics Research Seminar	2019, 2021
Master in Applied Economics	
Applied Microeconometrics	2020–22
Undergraduate	
Industrial Organization	2022–25
Undergraduate	
Advanced Microeconometrics	2025
Master in Economic Theory	

#### **University of Michigan**

Econ 472: Natural Resource Economics	2016
Mean teaching evaluation: 4.71 (course), 4.79 (instructor).	
Econ 437: Energy Economics & Policy	2011–2016
Mean teaching evaluation: 4.65 (course), 4.74 (instructor).	
Econ 662: Environmental Economics (graduate)	2011–2016
Mean teaching evaluation: 4.91 (course), 4.99 (instructor).	

*Teaching evaluations on a five-point scale are the mean for all courses taught.*

#### **Stanford University**

Econ 271, Graduate Econometrics II (teaching assistant)	2008–2009
Outstanding Teaching Assistant Award (2009)	

#### **University of Otago**

Introductory Microeconomics (teaching assistant)	1995–1996
Introductory Macroeconomics (teaching assistant)	1995–1996
Mathematical Economics (teaching assistant)	1997

#### **STUDENT ADVISING**

#### **Undergraduate Theses**

Jordán Mosqueda Juárez	2018
Oscar González Gil	2018
Juan Pablo Grimaldi	2019
Ricardo Enrique Miranda Montero	2019
Arturo Soberón Cedillo	2019
Paola Cymet Monroy	2020
Fidel González Parra	2020
Andres Glase Ordóñez	2021
Inés Valenzuela Muñoz Castillo	2021
Jorge Acedo Glaros	2021
Juan Pablo Martínez Giorgi	2021
Alfonso Lugo Sánchez	2021
Regina Calles Martínez	2021
Diego Olea Barragán	2022
Sabrina Fajardo Gallegos	2022
Alejandro Hernández González	2022
Andrés Villarreal Villegas	2022
Raul Mejia Ibañez	2023

	José Ignacio Avalos	2023
	Mauricio Pérez Ramírez	2023
	Aranxta Martínez Aguilar	2023
	Camila Flores Fernández	2023
	Josué Emmanuel De León	2023
	Sara Guerrero Rengifo	2025
	<b>Master's Theses</b>	
	Daniel Loredó Duran	2020
	Ramiro Agustín Beltrán Alessio Robles	2021
	David Ontaneda Navarrete	2022
	Diana Paola García Medina	2024
	<b>Ph.D. Dissertation Committee Member</b> (initial placement)	
	Jacqueline Doremus (Cal Poly San Luis Obispo)	2015
	Reid Dorsey-Palmateer (Western Washington University)	2015
	Eric Lewis (Department of Justice)	2015
	Mike McWilliams (University of Michigan RSQE)	2016
	Paul Brehm (Oberlin College)	2017
	Hope Thompson (FEMA)	2017
	<b>Graduate Student Third Year Paper advisor / reader</b>	
	Oxana Azgaldova	2016
	Meera Mahadevan	2016
	Alecia Cassidy	2015
	Sarah Johnston	2014
	Ben Meiselman	2014
	Yiyuan Zhang	2014
	Paul Brehm	2014
	Austin Davis	2013
	Adam Larson	2012
	Eric Lewis	2012
	Jacqueline Doremus	2011
	<b>Undergraduate Honors Theses</b>	
	Jesse Buchsbaum	2015
	Eugene Tan	2013
	Karl Dunkle-Werner	2013
	David Tigges	2012
HONORS, AWARDS, AND SPONSORED RESEARCH	Premio Citibanamex de Economía (2nd place)	2022
	Public Utility Research Center Prize for the Best Paper in Regulatory Economics at the 13th Annual International Industrial Organization Conference	2015
	<b>University of Michigan</b>	
	Weiser Center for Emerging Democracies Faculty Grant	2015
	University of Michigan Office of Research award	2015
	MITRE Faculty Research Grant	2015
	MITRE Faculty Research Grant	2013

	Rackham Spring/Summer Research Award	2011
	<b>Stanford Institute for Economic Policy Research</b>	
	Claire and Ralph Landau Student Working Paper Prize	2010
	Kapnick Fellowship	2009–10
	<b>Stanford University</b>	
	Martin Lee Johnson Stanford Graduate Fellowship	2003–08
REFeree SERVICE	<p>American Economic Journal: Applied Economics, American Economic Journal: Economic Policy, American Economic Journal: Macroeconomics, American Economic Review, American Economic Review: Insights, Applied Economics Letters, B.E. Journal of Economic Analysis &amp; Policy, Econometrica, Economic Change and Restructuring, Economics of Energy and Environmental Policy, Economic Journal, Electricity Journal, Energy Journal, Energy Policy, Energy Strategy Reviews, European Economic Review, International Journal of Industrial Organization, Journal of the Association of Environmental and Resource Economists, Journal of Development Economics, Journal of Environmental Economics and Management, Journal of Industrial Economics, Journal of Political Economy, Journal of Public Economics, Journal of Regulatory Economics, Latin American Economic Review, Latin American Research Review, National Science Foundation, Nature Energy, Quarterly Journal of Economics, RAND Journal of Economics, Review of Development Economics, Review of Economics and Statistics, Review of Network Economics, Utilities Policy, Water Policy.</p>	
OTHER EXPERIENCE	<b>Credit Suisse First Boston</b> , Auckland, New Zealand	
	Investment Banking Analyst	1999–2001
	Investment Banking Associate	2002