

CONTACT INFORMATION	<p>Centro de Investigación Económica Camino a Santa Teresa No. 930 Col. Héroes de Padierna 10700 Ciudad de México, MEXICO</p>	<p>Office: +52 55 5628 4000 ext.2957 Email: shaun.mcrae@itam.mx WWW: 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  Spring 2014  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>
PUBLICATIONS	<p>“Residential Electricity Consumption and Adaptation to Climate Change by Colombian Households”, <i>Economics of Disasters and Climate Change</i>, 2023, forthcoming.</p> <p>“Retail Pricing in Colombia to Support the Efficient Deployment of Distributed Generation and Electric Stoves” (with Frank Wolak), <i>Journal of Environmental Economics and Management</i>, 2021, 102541.</p> <p>“Self-Regulation vs State Regulation: Evidence from Cinema Age Restrictions” (with Ryan Lampe), <i>International Journal of Industrial Organization</i>, 75, 2021, 102708.</p>	

“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.

“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.

“Testing the convergence hypothesis: a new approach” (with Erkin Bairam), *Economics Letters*, 1999, v.64: pp. 351–355.

WORKING  
PAPERS

“The competitive effects of entry in the deregulated Mexican gasoline market” (with Lucas Davis and Enrique Seira)

“Fueling Alternatives: Gas Station Choice and the Implications for Electric Charging”  
(with Jackson Dorsey and Ashley Langer).

“Market Power and Incentive-Based Capacity Payment Mechanisms” (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). World Bank Policy Research Working Paper No. 8407.

“Crude Oil Price Differentials and Pipeline Infrastructure” (NBER Working Paper No. 24170).

“Market Power in a Hydro-Dominated Wholesale Electricity Market” (with Frank Wolak).

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

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

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

“Efficiency and Equity Effects of Electricity Metering: Evidence from Colombia”.

“Climate Change and Non-Residential Electricity Consumption in Colombia”.

“Reliability, Appliance Choice, and Electricity Demand”.

OTHER REPORTS

“Diagnosing the Causes of the Recent El Niño Event and Recommendations for Reform” (with Frank Wolak).

CONFERENCE  
AND SEMINAR  
PRESENTATIONS

**2023:** UC San Diego/ITAM workshop, Inter-American Development Bank, CAF, AERE Summer Conference, SETI pre-conference workshop, EAERE Summer Conference.

**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.

**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), 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 2022–23  
Undergraduate

### 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
José Ignacio Avalos	2023
Aranxta Martínez Aguilar	2023
Camila Flores Fernández	2023

#### **Master's Theses**

Daniel Loredó Duran	2020
Ramiro Agustín Beltrán Alessio Robles	2021
David Ontaneda Navarrete	2022

#### **Ph.D. Dissertation Committee Member** (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 AND AWARDS	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
	<b>University of Auckland</b>	
	Dean of Science Prize	1998
	Collins Prize in Mathematics	1998
	<b>University of Otago</b>	
	John Waddell Hayward Award in Commerce	1996
REFEREE SERVICE	American Economic Journal: Applied Economics, American Economic Journal: Economic Policy, American Economic Journal: Macroeconomics, American Economic Review, American Economic Review: Insights, B.E. Journal of Economic Analysis & Policy, Econometrica, Economic Change and Restructuring, Economics	

of Energy and Environmental Policy, 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, RAND Journal of Economics, Review of Development Economics, Review of Economics and Statistics, Review of Network Economics, Utilities Policy, Water Policy.

OTHER EXPERIENCE	<b>Credit Suisse First Boston</b> , Auckland, New Zealand	
	Investment Banking Analyst	1999–2001
	Investment Banking Associate	2002