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Centre for Development Economics & Sustainability

Monash University, 900 Dandenong Road

Melbourne, Australia

EMPLOYMENT

Monash University

Senior Research Fellow, Centre for Development Economics & Sustainability (2022–)

Monash Data Futures Institute Affiliate (2022–)

Monash Sustainable Development Institute Affiliate

Monash Impact Labs Affiliate (2023–)

University of Sydney

Lecturer (Assistant Professor), School of Economics (2020–2022)

Member, Sydney Institute of Agriculture (2021–2022)

University of Wisconsin, Madison

Assistant Professor, Robert M. La Follette School of Public Affairs (2015–2020)

Assistant Professor, Agricultural and Applied Economics (2016–2020)

Center for Demography and Ecology: Faculty affiliate (2016–2020)

UW Center for Financial Security: Faculty affiliate (2017–2020)

African Studies Program: Faculty affiliate (2018–)

EDUCATION

Ph.D. University of California, Davis, Agricultural & Resource Economics (2009–2015)

Lund University, Graduate student, School of Economics and Management (2008–2009)

B.A. Colby College, Economics, (Mathematics minor), *Summa Cum Laude* (2002–2006)

AWARDS & HONORS

- Monash Business School Dean's Award for Excellence in Research by an Early Career Researcher 2022
- AAEA Africa Section Award: Best Publication of 2022 for "Filling a Niche? The Maize Productivity Impacts of Adaptive Breeding by a Local Seed Company in Kenya"
- Leading Researcher in Development Economics in The Australian's 2020 Special Report on Research
- AAEA's Outstanding AJAE Article for "Money Matters: The Role of Yields and Profits in Agricultural Technology Adoption"
- Association for Public Policy Analysis and Management, 40 for 40 Fellowship, 2018
- Taylor Hibbard award for Excellence in Graduate Teaching, 2018 (based on student vote)
- Gordon A. King Best Dissertation Award, UC Davis Agricultural & Resource Economics (2015)
- Henry A. Jastro Graduate Research Fellowship, UC Davis (2012-2013)
- Departmental Fellowship, Agricultural and Resource Economics, UC Davis (2009-2010)
- Phi Beta Kappa, Colby College (2016)

RESEARCH OUTPUTS

JOURNAL ARTICLES

- BIRD, S. S., M. R. CARTER, T. J. LYBBERT, M. MATHENGE, T. NJAGI, AND E. TJERNSTRÖM (2022): “Filling a Niche? The Maize Productivity Impacts of Adaptive Breeding by a Local Seed Company in Kenya,” *Journal of Development Economics*, 157, 102885.
- TJERNSTRÖM, E., T. J. LYBBERT, R. F. HERNÁNDEZ, AND J. S. CORREA (2021): “Learning by (Virtually) Doing: Experimentation and Belief Updating in Smallholder Agriculture,” *Journal of Economic Behavior & Organization*, 189, 28–50.
- MICHLER, J. D., E. TJERNSTRÖM, S. VERKAART, AND K. MAUSCH (2019): “Money Matters: The Role of Yields and Profits in Agricultural Technology Adoption,” *American Journal of Agricultural Economics*, 101, 710–731.
- CARTER, M. R., E. TJERNSTRÖM, AND P. TOLEDO (2019): “Heterogeneous Impact Dynamics of a Rural Business Development Program in Nicaragua,” *Journal of Development Economics*, 138, 77–98.
- BROWN, P., A. J. DAIGNEAULT, E. TJERNSTRÖM, AND W. ZOU (2018): “Natural Disasters, Social Protection, and Risk Perceptions,” *World Development*, 104, 310–325.
- BARRIGA CABANILLAS, O., J. D. MICHLER, A. MICHUDA, AND E. TJERNSTRÖM (2018): “Fitting and Interpreting Correlated Random Coefficient (CRC) Models Using Stata,” *Stata Journal*, 18, 159–173.
- TJERNSTRÖM, E., M. R. CARTER, AND P. TOLEDO (2013): “Identifying the Impact Dynamics of a Small Farmer Development Scheme in Nicaragua,” *American Journal of Agricultural Economics, Papers and Proceedings*, 95, 1359–1365.
- TJERNSTRÖM, S. AND E. TJERNSTRÖM (2008): “Rational Foolishness Would Destroy a Public Service Broadcasting System,” *Journal of Media Economics*, 21, 258–263.
- TJERNSTRÖM, E. AND T. H. TIETENBERG (2008): “Do Differences in Attitudes Explain Differences in National Climate Change Policies?” *Ecological Economics*, 65, 315–324.

WORKING PAPERS

- “Relaxing Multiple Agricultural Productivity Constraints at Scale,” with Joshua Deutschmann, Maya Duru, and Kim Siegal. Previous version circulated under “Information, Credit, and Inputs: the Impacts and Mechanisms of a Program to Raise Smallholder Productivity” (NBER Working Paper No. 26054)
(*Revision invited at Journal of Development Economics*)
- “A Group Random Coefficient Approach to Modeling Heterogeneity in Technology Adoption,” with Oscar Barriga Cabanillas, Dalia Ghanem, Travis Lybbert, Jeffrey D. Michler, and Aleks Michuda
(*Revision invited at Econometrica*)
- “Selection and Heterogeneity in the Returns to Migration,” with Eduardo Cenci and Marieke Kleemans
- “Media and Motivation: the Effect of Performance Pay on Writers and Content,” with Ivan Balbuzanov and Jared Gars
- “Learning from Others in Heterogeneous Environments.” Previous version circulated under “Signals, Similarity, and Seeds: Social Learning in the Presence of Imperfect Information and Heterogeneity”

- “Air Pollution and Mental Well-being: Evidence from Australia,” with Valentina Duque, Zachary Duretto, and Josh Merfeld
- “Seeds of Uncertainty: Information, Subjective Expectations, and Technology Adoption,” with Jared Gars

WORK IN PROGRESS (READ: ALMOST-WORKING PAPERS)

- When Intentions Matter—Identifying the Prevalence and Source of Poor-quality Inputs in Kenya
with Jose Clavijo and Travis Lybbert
- Do Taxes on Sugar-Sweetened Beverages Affect Household Consumption? Evidence from the Philippines
with Aladdin Rozas Ko
- Nonlinear Pricing Complexity and Consumer Behavior
with Joshua Deutschmann and Jeff Michler
- Arrested Development: the Inefficiencies of Electoral Cycles in Infrastructure Projects
with Evan Morier
- The Dirt on Dirt: Soil Characteristics and Variable Fertilizer Returns in Kenyan Maize Systems
with Michael Carter and Travis Lybbert
- Income Volatility and Technology Choice
with Rachel Hernández Frattarola

OTHER WRITING

- “[Agricultural Technology Adoption in Africa, VoxDevLit Review](#)” (2022) Co-editor.
Editors: Tavneet Suri and Chris Udry; co-editors: Jenny C. Aker, Chris Barrett, Lauren Falcao Bergquist, Thomas Jayne, Jeremy Magruder, Hope Michelson, Meredith Startz, Emilia Tjernström
v.2 (2024) co-editors: Jenny Aker, Chris Barrett, Lauren Falcao Bergquist, Michael R. Carter, Lorenzo Casaburi, Robert Darko Osei, Douglas Gollin, Vivian Hoffman, Thomas Jayne, Naureen Karachiwalla, Harounan Kazianga, Jeremy Magruder, Hope Michelson, Meredith Startz, Emilia Tjernström
- “[Local Seed Company Fills a Niche to Increase Maize Productivity in Kenya](#)” (2017) Carter, Michael, Mary K. Mathenge, Sam Bird, Travis J. Lybbert, Timothy Njagi, and Tjernström, Emilia BASIS Brief No. 2017-01.
- “[Diverse Soils and Inputs Challenge Recommendations to Maize Farmers in Kenya.](#)” (2017) Tjernström, Emilia, Michael Carter, and Travis J. Lybbert. BASIS Brief No. 2017-03
- “Learning for Adopting: Signals, Similarity and Seeds: Social Learning in the Presence of Imperfect Information and Heterogeneity” (2016) In [Technology Adoption in Developing Country Agriculture](#) Policy Briefs from the Workshop Organized by Ferdi and SPIA, Clermont-Ferrand.
- “[Learning-by-doing vs. Learning-from-others: Heterogeneity Matters](#)” (2015) BASIS Brief No. 2015-01
- “[Spurring Technological Innovation and Poverty Reduction? Evaluating the Impact of a New Seed Market Actor in Kenya](#)” (2014) Carter, Michael R., Travis J. Lybbert, Mary K. Mathenge, and Emilia Tjernström BASIS Brief No. 2014-04
- “[Investing in Small-Farm Productivity: the Nicaragua MCC Compact](#)” (2012) Carter, Michael R., Emilia Tjernström, and Patricia Toledo. BASIS Brief No. 2012-6
- “[Price Premiums for Organic Strawberries](#)” (2012) Carroll, Christine, Diane Charlton, and Emilia Tjernström *Agricultural and Resource Economics Update*, 15(6):12–14.

- “Kunnigt och (o)kontroversiellt om Råvarumarknaden” (Book Review of ‘*Handbook of Primary Commodities in the Global Economy*’) (2009) Tjernström, Emilia *Ekonomisk Debatt*, 37(3):85–88.

RESEARCH INCOME

EXTERNAL GRANTS

\$ means USD unless otherwise indicated

- 2024-2026 **Title:** The Impact of Shock-responsive Social Protection in Fiji (\$249,990)
Funder: J-PAL Social Protection Initiative
Collaborator(s): Russell Toth
- 2024-2025 **Title:** Climate Information and Farm Productivity (GBP\$100,000)
Funder: International Growth Centre
Collaborator(s): Wang Lee, Seneshaw Tamru, Mekonnen Bekele Wakeyo
- 2023-2025 **Title:** Agricultural Productivity, Poverty, and the Environment (AU\$323,360)
Funder: Collaboration for Knowledge, Innovation, and Technology Australia and Indonesia (KONEKSI) Environment and Climate Change Collaborative Research Grant
Collaborator(s): Ryan Edwards, Alin Halimatussadiah, and J-PAL South East Asia
- 2022-2024 **Title:** Investigating the Impacts of Climatic Shock-responsive Social Protection in Fiji (\$9,999)
Funder: Social Protection Initiative at Abdul Latif Jameel Poverty Action Lab (J-PAL)
Collaborator(s): Russell Toth
- 2021-2023 **Title:** Sustainable Spillovers: Health and Environmental Impacts of Solar Energy Adoption (\$61,717)
Funder: King Climate Action Initiative at Abdul Latif Jameel Poverty Action Lab (J-PAL)
Collaborator(s): Lori Beaman, Joshua Deutschmann, and R. Subramanian
- 2021-2022 **Title:** Diffusion and Adoption of Labor-saving Technology in the Presence of Complementarity with other Inputs, Intra-household Frictions, and Coordination Costs (\$49,982)
Funder: CGIAR (SPIA) Pilot grant
Collaborator(s): Lori Beaman and Jeremy Magruder
- 2020-2024 **Title:** Market-Level Effects of Competition in Agricultural Input Markets: Prices, Quality, and Mechanisms (\$480,000)
Funder: National Science Foundation Economics
Collaborator(s): Jeremy Foltz, Joshua Deutschmann
- 2020-2022 **Title:** Market-Level Effects of Competition: Prices, Quality, and Mechanisms
Funder: Private Enterprise Development in Low-Income Countries (PEDL) Major Grant (£440,000)
Collaborator(s): Maya Duru and Laura Schechter
- 2018-2018 **Title:** Media and Motivation: the Effect of Performance Pay on Writers and Content
Funder: IFREE Small Grants Program (\$9,800)
Collaborator(s): Ivan Balbuzanov & Jared Gars
- 2018-2018 **Title:** An Experiment on Framing and Referrals to Boost Impact Investing
Funder: University of Chicago (\$2,857)
Collaborator(s): Angelino Viceisza

- 2017-2018 **Title:** Constructing Compliance: Reducing Tax Evasion Among Market Traders in Ghana
Funder: Economic Development and Institutions (EDI) pilot grant (\$18,027)
Collaborator(s): Nicole Bonoff
- 2018-2018 **Title:** Baseline for an Information Intervention in the Agro-inputs Market in Kenya (\$22,980)
Funder: PEDL Exploratory Research Grant
Collaborator(s): Travis Lybbert
- 2016-2017 **Title:** Testing Supply Chains for Fraudulent Fertilizer to Improve Regulation, Policy and Market Performance for Agro-inputs in Sub-Saharan Africa (\$47,100)
Funder: Kohl Competition Award
Collaborator(s): Travis Lybbert
- 2016 **Title:** Impact Evaluation of AGRA’s Financial Inclusion Programmes for Smallholder Farmers in Kenya (\$20,000)
Funder: 3ie & AGRA
Collaborator(s): Karl Hughes, Sarah Janzen, Judith Oduoul, and Laura Schechter
- 2016-2020 **Title:** Harnessing Interdependency for Resilience: Creating an Energy Sponge with Cloud Electric Vehicle Sharing (\$1,686,426)
Funder: NSF CRISP Type 2: Collaborative Research Grant
Collaborator(s): Xiaopeng Li, Xin Wang, Kaibo Liu, Feng Ju, Jianhui Wang
- 2016-2017 **Title:** Bringing “FarmVille” to the Tropics: App-based Simulations to Build Farmers’ Understanding of Customized Fertilizer Recommendations (\$96,000)
Funder: Global Center for Food Systems
Collaborator(s): Travis Lybbert
- 2015-2016 **Title:** Counterfeit Seed: Using Genetic Markers to Quantify the Prevalence of Counterfeit Maize Seed in Kenya (\$25,000)
Funder: Development Impact Lab (DIL) Innovate Grant
Collaborator(s): Travis Lybbert
- 2013-2016 **Title:** Evaluating the Socio-economic Impacts of Western Seed’s Hybrid Maize Program (\$424,000)
Funder: USAID BASIS Assets and Market Access Innovation Lab
Collaborator(s): Michael Carter, Travis Lybbert and Mary Mathenge
- 2013-2016 **Title:** Impact of Mid-altitude Hybrid Maize in Western Kenya (\$345,000)
Funder: Agricultural Technology Adoption Initiative
Collaborator(s): Michael Carter, Travis Lybbert and Mary Mathenge
- 2013-2016 **Title:** Impact Evaluation of Western Seed Company’s Hybrid Maize Program (\$286,000)
Funder: Bill and Melinda Gates Foundation
Collaborator(s): Michael Carter, Travis Lybbert and Mary Mathenge
- 2006-2007 **Title:** Nomad’s Land – Development, Conservation and Nomads (\$25,000)
Funder: Watson Fellowship, Thomas J. Watson Foundation

TEACHING & ADVISING

TEACHING

University of Wisconsin, Madison

International Cost-Benefit Analysis, Masters of Public Affairs Program
(2015, 2016, 2017, 2018, 2019)

International Policy Analysis, Masters of Public Affairs Program
(2016)

Applied Microeconometrics Using Replication, PhD field course in Applied Economics
(2017, 2018)

Economic and Agricultural Development of Africa, Undergraduate
(2018, 2019)

University of Sydney

International Cost-Benefit Analysis, Masters of Public Affairs Program
(2015, 2016, 2017, 2018, 2019)

International Policy Analysis, Masters of Public Affairs Program
(2016)

Applied Microeconometrics Using Replication, PhD field course in Applied Economics
(2017, 2018)

Economic and Agricultural Development of Africa, Undergraduate
(2018, 2019)

SUPERVISION

POSTGRADUATE STUDENTS

Rachel Frattarola, PhD AAE (2018) Dissertation committee member

Justin Delorit, PhD Civil & Environmental Engineering (2018) Dissertation committee member

Norihiko Matsuda, PhD AAE (2018) Dissertation committee member

Jessica Zhu, PhD AAE (2019) Dissertation committee member

Jens Engelmann, PhD AAE (2019) Dissertation committee member

Naoki Nishimura, PhD AAE, Dissertation committee member

Evan Morier, PhD Political Science, Dissertation committee member

Joshua Deutschmann, PhD AAE (2021) Dissertation committee member

Eduardo Cenci, PhD AAE (2021) Dissertation committee member

University of Sydney Masters students

- Aladdin Ko (2020-2021)
- Jerome Sidney Campos (2020-2021)

UW-Madison: Masters-level independent study supervision

- 2019 (2 students)
- 2018 (2 students)
- 2017 (3 students)

UNDERGRADUATE

University of Sydney Honours students

- Arin Torny-aydin (co-supervised with Marian Vidal-Fernandez)

UW-Madison: Undergraduate level independent study supervision

- 2019 (2 students)
- 2018 (1 students)
- 2017 (2 students)