



**UNIVERSITY
OF ALBERTA**



Spring 2024

Momentum

**Department of Resource Economics
and Environmental Sociology**

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MESSAGE FROM THE CHAIR

This annual report is packed with interesting stories about the work of faculty, staff and students in REES. Returning to life on campus after several years of online teaching and research has been particularly rewarding to see.

Reflecting on my last 5 years as department chair, there are several notable accomplishments that I'd like to highlight. First, working with our graduate students and seeing their achievements is highly rewarding. A number of these achievements are highlighted in the annual report, with attention to student awards, academic publications, and the career developments for recent graduates. Second, with the departure of several long-standing faculty members, we have secured new faculty positions, including Dan Yu and Douglas Mugabe, along with two more faculty members

(Madeline Turland and Devin Serfas) who will assume their positions in July 2024. Third, in 2020, REES initiated a new 12-month course-based masters program with an effort to offer graduate training opportunities to more students. This program is now a core part of our department.

As I end my time in REES and assume the position of dean at Augustana Campus (Camrose), starting in July, I want to thank everyone here for making this time such a rewarding experience and a central part of my career. I've been associated with REES since 1993 when I became a masters student, and I consider REES to be my professional home and a source of long-standing friendships. Although I will be taking on a new leadership role, I will continue to serve as a professor in REES, supporting graduate student training and continuing to be engaged in research activities.

In this sense, I look forward to continuing my relationship with REES, albeit from our rural campus.



John Parkins
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Coffee time with REES colleagues at the Daily Grind, SUB. Photo: Supplied.

Featured Researchers

HENRY AN

Wheat adoption

A growing global population and the challenges of climate change have made the need to develop new and improved wheat varieties increasingly important. Creating varieties that are more disease resistant and tolerant to changing environmental conditions such that they will be widely adopted requires breeders to understand the needs of producers. Existing literature suggests that time-invariant traits such as disease resistance and brand matter in crop adoption decisions; however, studies using common statistical approaches are unable to identify the individual effects of explanatory variables that remain constant across time, such as brand name. This study by co-authors **Henry An**, Jennifer Syme and Mohammad Torshizi uses a recently developed approach that can estimate the effects of both variables that change over time and those that do not. Using wheat variety adoption in the Canadian Prairies as our empirical setting, they find that both time-variant traits, such as varietal adaptability, and time-invariant traits, such as resistance to stripe rust infection, are positively correlated with adoption. They also find that seed brand has a statistically significant effect on adoption. Prior economic studies on crop adoption have not given much consideration to time-invariant variety characteristics like disease tolerance and seed brand, but a better understanding of their impact on adoption can assist breeders in responding to emerging problems, particularly new diseases, more quickly and more efficiently. This will also enhance the work by crop research institutions, prevent considerable economic loss to farmers, and improve crop production.

Syme, Jennifer, Henry An, and Mohammad Torshizi. 2023. "Estimating the Effect of Time-Invariant Characteristics in Panel Data: Wheat Adoption in Western Canada." *American Journal of Agricultural Economics* 1–24. <https://doi.org/10.1111/ajae.12400>



In this wheat trial, the different varieties grow in plots in close proximity to one another.
Photo: Saskatchewan Wheat Development Commission

KEVIN JONES

Urban agriculture

Gardens are becoming increasingly visible within Edmonton's urban landscape, echoing global trends. 'Urban agriculture' (UA) is a term which captures a wide range of food growing activities in cities, including commercial market operations, domestic backyard gardens, innovative rooftop gardens, and both small and large scale community gardens. UA projects often arise in response to crisis, and food insecurity. Recently, the Covid pandemic, and a subsequent rise in food prices, has dramatically increased food vulnerabilities in Edmonton, and gardens have been grown across the city to support communities in need. They are also spaces in which sustainability concerns are being raised, and where what it means to be a sustainable city are being acted upon.

It is no wonder that gardens are increasingly recognized as important social and cultural spaces deserving academic interest – a belief that has flourished in **Kevin Jones's** mind for many seasons now. In addition to being an Associate Professor in REES, Jones is an active supporter and the current Director of Prairie Urban Farm (PUF) on the U of A South Campus. Started a decade ago, PUF is an acre and a half mixed fruit and vegetable garden which is gardened collectively by university and community volunteers. Its produce is accessible by volunteers and goes to support food vulnerable communities in Edmonton.

PUF is also a site for social scientific and community-based research and learning. There is much more social work going on in gardens than can be measured in weight of produce. Gardens are sites of recreation and exercise, places for finding belonging and building community, and for collectively navigating environmental uncertainties and what it means to live (and eat) sustainably. These layered social processes make gardens exciting spaces for conducting sustainability research with communities, and with direct benefits for participating citizens.



The Prairie Urban Farm (PUF) grows fruit and vegetables to support food vulnerable communities in Edmonton.
Photos: Supplied.

FENG QIU

Biofuels

Feng Qiu leads a research team at the U of A that focuses on the economic and policy aspects of low-carbon energy – especially biofuels. Her research includes several critical areas within energy economics, notably feedstock / biomass supply assessment; price, market, and policy analysis; and broader economic and environmental implications of green policies. She has published 44 peer-reviewed journal articles. As a Principal Investigator, Qiu has secured over \$1.8 million dollars in research funding for her program in the past 6 years. Qiu also serves as an Editor for the journal *Agribusiness: An International Journal*, which enhances her influence within the academic community and beyond, facilitating the dissemination of cutting-edge research and insights to a broad spectrum of academics, practitioners, and policymakers.



Photo: Supplied.

Among her notable projects are two that stand out for their scale and importance in advancing biofuel research and policy analysis:

1. As the **PI of the Future Energy Systems** Work Package: Investment Decisions and Policy Analysis, Qiu, together with Marty Luckert, has been pivotal in directing a \$700,000 project that delves into the intricacies of renewable energy integration, particularly focusing on investment strategies and policy evaluations that can facilitate a sustainable energy future. This project, a part of the larger Future Energy Systems initiative, represents a significant contribution to our understanding of the economic and policy dimensions of energy transition. More information about this project can be found on the **Future Energy Systems** website.
2. In leading the economic and policy analysis for the Alberta Biojet Initiative, Qiu has played an important role in the \$7,404,000 project (led by David Bressler) aimed at upgrading the U of A's LTH technology to produce biojet fuel. This endeavor, for which she is a co-theme lead for the economic and policy component, not only showcases the potential of biofuels in reducing carbon emissions but also positions Canada as a leader in the development of sustainable aviation fuels. Further details about this initiative can be accessed through the **Alberta Biojet Initiative** website.

Through these two projects, Qiu and Luckert have trained over 10 HQPs and published over 12 peer-reviewed journal articles (average impact factor > 6.5).

Faculty Excellence

Congratulations to REES faculty members who received Faculty of ALES awards:

DEBRA DAVIDSON: Faculty Teaching award

BRENT SWALLOW: Graduate Mentoring award



The department celebrated Peter Boxall's career with a retirement party. Photo: Supplied.

MEET OUR NEWEST FACULTY MEMBER

Dan Yu joined the department as the Co-operative Chair in Agricultural Marketing and Business and an assistant professor. She's a graduate of the University of Minnesota, where she earned a PhD in Economics and several distinguished teaching awards.

Dan's background in industrial organization, environmental economics and applied microeconomics is well suited to her appointment. Her research interests include studying the value of certifications, such as their informativeness, consumers' willingness to pay and potential welfare gain.

INCOMING FACULTY MEMBERS

Madeline Turland is an applied microeconomist who will join us from University of California, Davis this spring. She will continue her research in climate change, insurance, and the use of markets to manage water resources as an assistant professor in the department.

Devin Serfas, an agricultural economist, also joins us from University of California, Davis this spring for an appointment as the RDAR Chair in Applied Agricultural Economics and Risk Management. His research interests include agricultural policy, markets, and farm management.





REES grad students get to know one another at the start of the academic year. Photo: Supplied.

Outstanding Students

MARINA GIANNITSOS

MSc Agricultural and Resource Economics

While working in economic development and consulting, Marina Giannitsos was inspired by her colleagues in the industry to expand her knowledge of applied economic methods, leading her to pursue a graduate degree in Agricultural and Resource Economics.

As a former journalist and more recently, a student researcher, Marina's knack for investigative inquiry and analysis has taken various forms throughout her life, but none as rewarding as the experience she gained while completing her graduate thesis, *Homeowners' Risk Perceptions and Preferences for Property-Level Flood Protection*.



Marina poses at convocation with her supervisor, Vic Adamowicz. Photo: Supplied.

"My favourite memory was conducting the primary research for my thesis. I spent an entire month of the summer of 2022 going door-to-door in Edmonton and surveying residents. It was difficult, but also such a rewarding experience to collect my own data."

Along with family and friends, she credits her supervisor, Vic Adamowicz, with providing her the necessary support and mentorship to achieve her goals. She has recently started a new position as an economist with Environment and Climate Change Canada.

WILLIAM HOLOWAYCHUK

MAg in Agricultural & Resource Economics

Will Holowaychuk's rural upbringing on a mixed family farming operation in Alberta fueled his desire to continue his education and look for career opportunities within agriculture that would draw on his passion for farming and his background in commerce. He remembers, "I began to realize there were opportunities to engage my life-long passion for farming and agriculture in ways that would benefit the long-term environmental sustainability and economic viability of the industry."



The Masters in Agriculture program in agricultural and resource economics was a perfect fit, says Will, providing the academic coursework and experience that would prove to be challenging at times, but would ultimately lead to growth on a personal and professional level.

Now employed as a policy analyst with Alberta Canola, Will is putting his diverse experiences and training to work advocating for the long term environmental sustainability and economic viability of the agricultural industry.

Will shared his industry expertise on a panel regarding canola with ALES alumni at the annual Breakfast with the Dean. Photo: University of Alberta.

MEGHAN LIM

MSc Agricultural and Resource Economics

Meghan Lim loves both nature and numbers, and hopes that by combining those passions, she can help protect the planet. Lim's degree allowed her to tap into a deep fascination with the natural world she's had since she was a child, and feels compelled to honour.

Growing up, she learned about wild animals facing extinction, and other issues like pollution and climate change, gradually developing an appreciation for the idea of sustainability. Her excitement for the field was fed by her master's thesis, which involved impact evaluation, a growing area of expertise that measures program effectiveness.

Using her number-crunching skills, Meghan worked with a global research partnership to measure the impact of a program aimed at helping farmers use climate-smart agricultural practices to improve their food security. Her work helped reveal that the program did indeed improve household food security, while giving her the satisfaction of seeing her research support policy decisions and programs.

Now working for Natural Resources Canada, Meghan is doing just what she hoped, using her skills as an economist to answer questions to help develop climate-driven policy, particularly around helping Canada reach its pledge of net-zero emissions by 2050.

"I feel that is something Canadians can be really proud of – that our country has made these commitments to the international community. And my work being even a small part of helping us fulfill them is really awesome."



Meghan says resource economics provides "the tools to create policies that will help protect biodiversity and keep our air and water clean." Photo: Supplied.

AWARD-WINNING STUDENTS

The following awards, scholarships and prizes are facilitated by the university to support REES students in their studies:

Edmund Adorkor: Dr. Janaki Alavalapati Graduate Scholarship, U of A Recruitment Scholarship, Berg Memorial Fund

Mary Asante: James Copeland Graduate Scholarship, Travis. W. Manning Book Prize

Matilda Armoo: U of A Recruitment Scholarships

Sarah Brackett: Alberta Agricultural Economics Association Master's Scholarship, Brett Cortus Memorial Graduate Scholarship, Travis. W. Manning Book Prize, Ward Toma Graduate Scholarship in Agricultural and Resource Economics

Alma Chowdhury: Dr. Donald Haid Graduate Scholarship in REES, U of A Recruitment Scholarships

Sarah Ejekwupe: James Unterschultz Memorial Graduate Scholarship, REES Three Minute Thesis (3MT)

Joseph Fleisch: Environmental Sociology Graduate Scholarship

Aynaz Gerami: U of A Recruitment Scholarship, Berg Memorial Fund, Alberta Graduate Excellence Scholarship (AGES)

Julia Gesshe: B.J. McBain Graduate Scholarship, Alberta Graduate Excellence Scholarship (AGES)

Charlene Green: Alberta Graduate Excellence Scholarship (AGES)

Jessica Hermary: Travis. W. Manning Book Prize, REES Three Minute Thesis (3MT)

Rahama Issah: B.J. McBain Graduate Scholarship, Alberta Graduate Excellence Scholarship (AGES)

Dasha Ivanova: Alberta Graduate Excellence Scholarship (AGES)

Anusher Khumorikov: B.J. McBain Graduate Scholarship

Sandra Odame: Brett Cortus Memorial Graduate Scholarship

Mingyhao Pan: Michele and Terrence Veeman Graduate Scholarship in Agricultural, Food, and Resource Economics

Raisa Rahman: REES Three Minute Thesis (3MT)

Anna Rodgers: Alberta Graduate Excellence Scholarship (AGES)

Dewmi Weerasekara Mudiyanselag (Ratnayaka): U of A Recruitment Scholarship, Berg Memorial Fund

Zhou Yuan: Berg Memorial Fund, Dr. Richard Carew Graduate Award in REES, U of A Recruitment Scholarship

The following awards, scholarships and prizes are facilitated by the university to support REES students in their studies:

2023 CAES Outstanding PhD Thesis Award. Co-winner, **Lusi Xie**, Three Essays on Behavior, Incentives, Environmental Valuation, and Contributions to Conservation. Supervisor: Dr. Vic Adamowicz; Supervisory Committee Members: Dr. Ellen Goddard, Dr. Maik Kecinski, and Dr. Sandeep Mohapatra.

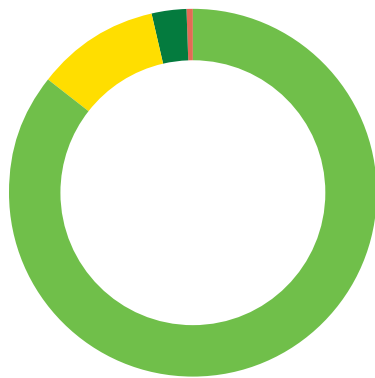
2023 CAES Outstanding Master's Thesis Award. Winner, **Michael Huang**, Economics of wildfire suppression: Estimation of drivers of suppression expenditure and risk preference experiments with wildfire management. Supervisor: Dr. Bruno Wichmann.



REESSA, the Resource Economics & Environmental Sociology Students' Association, goes to great efforts to support students in the department. Pictured is their popular annual event, a Heritage Night that welcomes students to share their culture and get to know one another during a potluck dinner. Photo: REESSA.

Facts and Figures

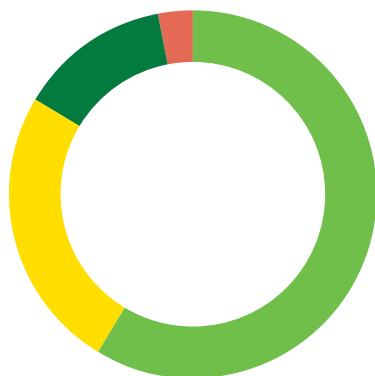
RESEARCH FUNDING



- **Alberta provincial government** | \$293,041 | 3%
- **Federal government** | \$8,332,297 | 85.8%
- **Other government** | \$44,388 | 0.5%
- **Other** | \$1,046,038 | 10.8%

Total Value of Research Funding 2022-2023
\$9,715,764 (financial fiscal year)

GRADUATE STUDENTS ENROLLMENT



- **MSc Students** | 40 | 58.8%
- **MAg Students** | 17 | 25%
- **MBA/MAg Students** | 2 | 2.9%
- **PhD Students** | 9 | 13.2%

Current Graduate Students
68 (as of March 2024)

The department is home to the [.OO.E.+ Ärramät project](#), which supports Indigenous-led research on biodiversity, health and well-being. It unites over 150 Indigenous organizations globally with researchers across 19 Canadian universities, two colleges, and 14 international universities. Brenda Parlee, Mariam Wallet Aboubakrine and Danika Billie Littlechild co-lead the project as a UNESCO World Chair – the first awarded at the U of A.

Students in the department study in the following subject areas:

Agricultural and Resource Economics

Risk and Community Resilience (Interdisciplinary)

Rural & Environmental Sociology

Forest Economics

Learn more about graduate programs in REES on our [website](#).

GRADUATE STUDENTS FROM ACROSS THE GLOBE:

Bangladesh | 6

Canada | 24

China | 6

Ethiopia | 1

Germany | 1

Ghana | 9

India | 1

Iran | 1

Nigeria | 8

Peru | 1

Sri Lanka | 2

Tajikistan | 1

Tanzania | 3

USA | 2

Uzbekistan | 2



Featured Publications

Anders, S., Volpe, R., & Bittmann, T. (2023). Price rigidity, wholesale price passthrough, and quality-tiered private labels. *Managerial and Decision Economics*, 44: 3002–3015.

Andrews, J., & Marcoul, P. (2023). The long-term effects of climate shocks on social preferences: Evidence from rural Tanzania. *Personality and Individual Differences*, 203, 112010.

Chewinski, M., Anders, S., & Parkins, J. R. (2023). Agricultural landowner perspectives on wind energy development in Alberta, Canada: insights from the lens of energy justice and democracy. *Environmental Sociology*, 9(4), 477-489.

Letourneau, A., Davidson, D., Karsgaard, C., & Ivanova, D. (2023). Proud fathers and fossil fuels: gendered identities and climate obstruction. *Environmental Politics*, 1-21.

Lim, M., Luckert, M. M., & Qiu, F. (2023). Economic opportunities and challenges in biojet production: A literature review and analysis. *Biomass and Bioenergy*, 170, 106727.

Ma, T., Swallow, B., Foggin, J. M., Zhong, L., & Sang, W. (2023). Co-management for sustainable development and conservation in Sanjiangyuan National Park and the surrounding Tibetan nomadic pastoralist areas. *Humanities and Social Sciences Communications*, 10(1), 1-13.

Mansuy, N., Staley, D., Alook, S., Parlee, B., Thomson, A., Littlechild, D. B., Munson, M. & Didzena, F. (2023). Indigenous protected and conserved areas (IPCAs): Canada's new path forward for biological and cultural conservation and Indigenous well-being. *FACETS*, 8, 1-16.

Pattison-Williams, J. K., Marcoul, P., & Mohapatra, S. (2023). Intrahousehold moral hazard frictions and household poverty traps in rural India. *Economics of Transition and Institutional Change*, 31(1), 67-96.

Syme, J., An, H., & Torshizi, M. (2023). Estimating the effect of time-invariant characteristics in panel data: wheat adoption in Western Canada. *American Journal of Agricultural Economics*, 106: 828–851.

Wang, H., Fan, X., Zhao, Q., & Cui, P. (2023). Emissions reduction strategy in a three-stage agrifood value chain: A dynamic differential game approach. *Plos one*, 18(11), e0294472.

Wichmann, B., & Moreira Wichmann, R. (2023). Big data evidence of the impact of COVID-19 hospitalizations on mortality rates of non-COVID-19 critically ill patients. *Scientific Reports*, 13(1), 13613.

Xie, L., Adamowicz, W., & Lloyd-Smith, P. (2023). Spatial and temporal responses to incentives: An application to wildlife disease management. *Journal of Environmental Economics and Management*, 117, 102752.

Johnston, R.J., Boyle, K. J., **Adamowicz, W.**, Bennett, J., Brouwer, R., Cameron, T.A., Hanemann, W.M., Hanley, N., Ryan, M., Scarpa, R., Tourangeau, R., & Vossler, C A. (2017). Contemporary guidance for stated preference studies. *Journal of the Association of Environmental and Resource Economists*, 4(2), 319-405.

Highly cited research: To date, this work is cited more than 1,400 times in Google Scholar.

Read more online!

The **REES Collection** on the Education & Research Archive (ERA) includes annual reports, capstone projects, project reports and over 650 theses and dissertations published since 1964.



Directory

FACULTY MEMBERS

Vic Adamowicz - Professor, Vice Dean of ALES

Henry An - Professor

Sven Anders - Professor, Director of Graduate Programs

Peter Boxall - Professor

Debra Davidson - Professor

Xiaoli Fan - Assistant Professor

Scott Jeffrey - Professor

Kevin Jones - Associate Professor

Marty Luckert - Professor

Philippe Marcoul - Professor

Sandeep Mohapatra - Professor

Douglas Mugabe - Assistant Lecturer

John Parkins - Professor, REES Department Chair

Brenda Parlee - Professor

Feng Qiu - Associate Professor

Brent Swallow - Professor

Bruno Wichmann - Associate Professor

Kristine Wray - Research Associate

Dan Yu - Assistant Professor, Co-Operative Chair in Agricultural Marketing and Business

STAFF

Izabela Martyniak - Academic Department Manager

Alice Sech - Executive Assistant

Christie Nohos - Executive Assistant/Office Manager

Best wishes to Sarah Gooding, our long-time Academic Department Manager, as she nears the start of her retirement.





Leading with Purpose.



**UNIVERSITY
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**Department of Resource Economics
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