

Aleksandr Michuda

Personal Data

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Education

PhD Candidate University of California, Davis, Agriculture and Resource Economics

Expected Graduation Date: Summer 2021

Dissertation Topic

Labor Supply Adjustment to Adverse Agricultural Shocks: A Study of Uber and the Gig Economy Rural-urban linkages are vital to understanding the transmission of targeted programs from one sector to the other. These linkages are expressed through internal migration, ownership of land and other assets across regions. To measure the existence and strength of these links, we have traditionally relied on data collected from household surveys that ask about migration, asset ownership and other factors. However, there are situations where collecting data or matching data across datasets may be infeasible. This paper uses a novel dataset of Uber driver hours and a rich dataset of weather indicators to estimate the effect of adverse weather shocks in rural areas on driver's labor supply in Kampala, Uganda. Since regional connection is not collected by Uber, I use gradient boosting on Ugandan surnames to predict which regions those drivers are connected to, and develop a maximum likelihood estimator that is robust to the misclassification bias. I find that a one standard deviation increase in intensity of agricultural drought leads to an increase in monthly hours in the month of the drought, by 4.2 hours, and 3 months post drought, by 3.5 hours. This paper creates a framework on how to use big data and machine learning to overcome issues of limited data, measures rural-urban links and helps to understand the flexibility of the gig economy in developing countries.

B.A./M.A. Economics Hunter College

summa cum laude

B.A. Philosophy Hunter College

summa cum laude

Languages and Skills

:us: English: Fluent

:ru: Russian: Fluent

:ua: Ukrainian: Basic Knowledge

Technical Skills

Python, STATA, LaTeX, R, Github, Bash

Experience

BITSS Catalyst- Berkeley Initiative for Transparency in the Social Sciences July 2017 - Present

- Organized workshops that teach reproducibility and transparency in social sciences.
- Taught Anonymization of data as well as replication techniques.
- Taught Jupyter Notebooks portion of dynamic documents (R Markdown, Jupyter Notebooks, Stata Markdown)

Research Assistant (Disease Suppressive Crop Rotations)

- Advisor: Rachael E. Goodhue July 2016 - Present
- Responsible for data management and cleaning
- Regression and ANOVA analysis using Stata and Jupyter Notebooks
- Calibrating dynamic contract models in Python

Research Assistant (Optimal Nutritional Interventions across Space and Time)

- Advisor: Stephen Vosti
- Responsible for developing a python package that finds the optimal set of nutritional interventions across space and time
 - Using 24hr recall or household surveys
- Estimated optimal interventions of effective coverage and lives saved in Cameroon
- Developed dashboards for HKI (Hellen Keller International) to visualize Vitamin A intake in Kenya

Publications

Applied Econometrics

Cabanillas, Oscar Barriga, Jeffrey D. Michler, **Aleksandr Michuda**, and Emilia Tjernström. “Fitting and interpreting correlated random-coefficient models using Stata.” Stata Journal 18, no. 1 (2018): 159-173.

Specialty Crops

Michuda, Aleksandr, Goodhue, Rachael, Klonsky, Karen, Baird, Graeme, Toyama, Lucinda, Zavatta, Margarita, & Shennan, Carol (2018). The economic viability of suppressive crop rotations for the control of verticillium wilt in organic strawberry production. *Agroecology and Sustainable Food Systems*, 1-25.

Aleksandr Michuda, Rachael Goodhue, Joji Muramoto, and Carol Shennan. “Crop Rotations Can Increase Net Returns in Organic Strawberry and Vegetable Production Systems.” *ARE Update* 20(6)(2017): 5-8. University of California Giannini Foundation of Agricultural Economics.

Book Chapters

Carter, M. R., & **Michuda, A.** (2019). The Distribution of Productive Assets and the Economics of Rural Development and Poverty Reduction. In *The Palgrave Handbook of Development Economics* (pp. 377-408). Palgrave Macmillan, Cham.

Working Papers

“Revisiting Selection and Comparative Advantage in Technology Adoption: A Structural Approach.” with Oscar Barriga Cabanillas, Jeffrey D. Michler, & Emilia Tjernström.

- Extending and improving the correlated random coefficients model by developing the “Group Random Coefficients” model.
- Providing a more robust approach to estimating heterogeneous effects of adoption that allows for over-identification tests and dynamic heterogeneity.

Gupta, Anubhab, Heng Zhu, Miki Khanh Doan, Aleksandr Michuda, and Binoy Majumder. “Economic Burden of COVID-19 Lockdown on the Poor.” Available at SSRN 3642987 (2020).

Conferences

BITSS RT2 2020	Dynamic Documents with Jupyter Notebooks
AAEA Meetings 2019	Evaluating a Systems Approach to Suppressive Crop Rotations in Strawberry Production
AAEA Meetings 2018	Political Contributions and the Case of South African Land Reform
AAEA Meetings 2017	The Economic Viability of Suppressive Crop Rotations in Organic Strawberry Production
	Empirically Estimating the Impact of Weather on Agriculture

EEA Conference 2014	The Russian Mir and Agrarian Transition
CUNY's UGRC 2013	Large Frontiers and Coercion: An Economic Perspective

Scholarships and Awards

UC Davis

Fall 2014 - Spring 2016	Steindler Fellowship
Spring 2017	Henry A. Jastro Grant
Fall 2017	BITSS Catalyst Grant
2017	Graduate Student Association President

Hunter College

Fall 2009 - Spring 2011	Philip and Aida Siff Educational Foundation Scholarship
Fall 2009 - Spring 2011	Vallone Scholarship
All Semesters	Dean's List
Spring 2012	Undergraduate Research Initiative
Fall 2012	Roosevelt House Faculty Associate Travel and Research Grant
Spring 2013	Phi Sigma Tau (Philosophy Honor Society) Member
Spring 2013	The Scholarship and Welfare Fund Graduate Scholarship
Fall 2013	JMS Scholarship
Fall 2013	Eastern Economic Association Member
Spring 2014	William S. Bryar Memorial Award
