Yigit Aydede

Curriculum Vitae (Yigit_Aydede)

Professor of Economics, Saint Mary's University, Halifax, Canada.

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Highlights

I am a professor in the Department of Economics at Saint Mary's University in beautiful Halifax. Although most of my research is in the field of population economics, my current focus is on genomics, unconventional data, chronic disease surveillance systems, and machine learning. I teach data analytics courses at undergraduate and graduate levels.

- Starting July 1 in 2021, I am appointed to Sobey Professorship in Economics for 5 years.
- I just finished my one year term as a visiting professor at Free University of Bozen - Bolzano (UniBZ).
- I am a founder member of Research Portal on Machine Learning for Social and Health Policies, where, in collaboration with one of my colleagues, we orginize scintific events. I have organized a 3-day online Summer School, **Machine Learning for Economists and Applied Social Scientists**, followed by a 2-day Webinar series. More than 60 faculty and researchers attended these fee-based online lectures and more than 260 participants registered for the 2-day long webinar in 2020.
- We just finished (24-25 August 2022) our 1st Workshop of Applied Microeconomics.
- As many other researchers, I've also worked on COVID-19. I've just finished a project (as a PI) selected to the Nova Scotia COVID19 Research Coalition. I've also served at Reimagining the Future for Nova Scotians where academic and community experts are put together to see what opportunities are possible for Nova Scotia after the pandemic.
- I have been teaching a course, Introduction to Applied Machine Learning with R since Winter 2020. It is the first and only machine learning course in the Sobey School of Business that also has programming Labs. Moreover, I will also be teaching "MBAN 5610 Artificial Intelligence & Machine Learning" at the new Master of Business Analytics (MBAN) program in March 2023.
- I present and disseminate my work using unconventional data and the latest methods in Machine Learning here in my blog post series. (See CBC NEWS - How well have Canadians complied with COVID-19 restrictions? New data offers a glimpse)

Education

- PhD in Economics, University of Delaware, USA, 2006.

Scholarship

Book

The first and incomplete draft of my book is available in my Github repo: Toolbox for Social Scientists and Policy Analysts: Applied Data Analytics with Machine Learning and R. The final version is forthcoming in December 2022.

Refereed Publications

- Speeding up for a son in Turkey. *Canadian Journal of Development Studies.* Forthcoming.
- Speeding Up for a Son among Immigrants in Canada. *Population Research and Policy Review* May 2022.
- Why does education-specific skill mismatch have no effect on wages in Turkish labor markets? *Applied Economics.* (B.Orbay and N.Erkol). December 2021 (53) 58.
- Assortative Preferences in Choice of Major. *IZA Journal of Labor Economics.* October 2020: 9:1.
- Asymmetric Information and Discount to Foreign-Acquired Education in Canada (Atul Dar). *IZA Journal of Development and Migration.* 2019, 10:2.
- Immigration and Location Choices of Native-Born Workers in Canada. *Papers in Regional Science.* Vol.96(S1) March 2017. 96-S1.
- Is the Lower Return to Immigrants' Foreign Schooling a Postarrival Problem in Canada? (A. Dar). *IZA Journal of Migration.* 2017. 6:4.
- The Cost of Immigrants' Occupational Mismatch and the Effectiveness of Postarrival Policies in Canada. (A. Dar). *IZA Journal of Migration.* 2016. 5:9.
- Re-employment, Housing Tenure, and Squatter Settlements in Turkey: An Empirical Analysis. *Housing, Theory and Society.* 2016. Vol.33(1).
- Comparison of Economic Benefits of University and Vocational High School Education among Different Majors in Turkey. (B. Orbay) *European Journal of Higher Education.* 2016. Vol.6(2).
- Economic Benefits of Studying Economics in Canada: A Comparison of Wages of Economics Majors with those in Other Disciplines Circa 2005. (A. Akbari) *Canadian Journal of Higher Education.* 2015. Vol.45(4).
- Effects of Immigration on Interregional Population Flows in Canada. *Migration and Development.* 2014. Vol. 3(2).
- Spatial Regularities between Nonimmigrant and Immigrant Numbers in Canada. *Migration Letters.* 2014. Vol.11(1).
- Are the Educational Credentials of Immigrant and Native-Born Workers Perfect Substitutes in Canadian Labour Markets? A Production Function Analysis. (A. Akbari). *Education Economics.* 2013. V.21(5).
- Effects of Immigration on House Prices in Canada. (A. Akbari). *Applied Economics.* 2012. Vol.44(13).
- Parametric Social Security Reforms and Saving: Evidence from Turkey. *Topics in Middle Eastern and Northern African Economies*, September 2011, Vol.13.
- Expected Social Security Wealth Simulations and Implicit Rate of Return Calculation for the Turkish PAYG System. *Journal of Economic and Social Measurement.* 2010. Vol.35.
- Generational Selfishness and Social Security: A Note on a Time-Inconsistency Problem in Parametric Reforms of PAYG. *Journal of Economic Policy Reform.* 2010. Vol.13(1).
- Aggregate Consumption Function and Public Social Security: The First Time-Series Study for a Developing Country, Turkey. *Applied Economics.* 2008. Vol.40(14).

Papers Under Review

- Native-born-immigrant wage gaps in Canada: Market imperfections or differences in human capital endowments? *Applied Economics.* (Atul Dar)

Work-in-progress

- Application of "dominance analysis" with health data: Identifying regional spreaders of a viral pathogen and their socio-spatial predictors in Nova Scotia. (with Jan Ditzen)
- Understanding the dynamics of a viral spread by sparse composite likelihood selection.
- Mobility and COVID-19 Spread: Solving the Puzzle (Mutlu Yuksel).
- Predicting Bankruptcy by Using New Textual Features in Financial Statements (N. Kochetova, A. Boshanna).
- Predicting Respiratory Diseases by Social Media Extraction and Machine Learning (with MLportal).

- [Predicting Cancer by Using CCHS (with MLportal)](#) – SSHRC/RDC application is accepted.
- Predicting immigrants' hospital utilization based on the record of landing and tax data for pre-migration policies (Mutlu Yuksel, Mevlude Akbulut, Casey Warman).

Working Papers

- Dynamics of Social Mobility during the COVID19 Pandemic in Canada, (M.Yuksel and F.Begolli). *IZA Discussion Papers*, 13376. 06/2020.
- How Big is It? The Cost of Vertical Mismatch in Canadian Labour Markets. (A. Dar). *CLSRN* (Canadian Labour Market and Skills Researcher Network) – WP154 – 07/2015.
- Immigration and Location Choices of Native-Born Workers in Canada. *CLSRN* – WP130 – 03/2014.
- Economic Benefits of Studying Economics in Canada: A Comparison of Wages of Economics Majors with those in Other Disciplines Circa 2005. *CLSRN* – WP109 – 02/2013.
- Intergenerational Transfers and Expectations: A Note on How a Ponzi Scheme Affects Consumption. *NFI* (Networks Financial Institute at Indiana State University) - 2008-WP-11.
- A Dynamic Inconsistency Problem in Optimal Policies of PAYG. *NFI* 2008-WP-07.
- Wealth Creation and Expected Fairness of the Turkish PAYG System. *NFI* 2007-WP-21.
- Social Security, Intergenerational Transfers, and Saving: New Evidence from a Developing Country. *NFI* 2007-WP-6.
- Saving and Social Security Wealth: A Case of Turkey. *NFI* 2007-WP-03.

Conference Papers (Refereed - last 4 years)

- *EUHEA 22 Conference* ([European Heath Economics Association](#)) "Understanding the dynamics of a viral spread by sparse composite likelihood selection."
- *Canadian Economic Association*, Ottawa Canada, June 2022. "Understanding the dynamics of a viral spread by sparse composite likelihood selection."
- *AEDE XXIX* [Economics of Education Association](#). July, 2021. Native-born-immigrant wage gaps in Canada: Market imperfections or differences in human capital endowments? (with A. Dar)
- *BigSurv20* [Big Data Meets Survey Science](#). November, 2020. Utrecht, Netherlands. "What can be predicted from a national health survey? Is cancer one of them?".
- *European Union Health Economics Association* [EUHEA 2020 Conference](#), Oslo July 9. What can be predicted from a national health survey? Is cancer one of them?.
- *Canadian Research Data Centre Network* (CRDCN) 2019 National [Conference](#), Halifax, October 2019. "What can be predicted from CCHS? Is cancer one of them?" (with Mutlu Yuksel).
- *Canadian Economic Association*, Banff, Alberta, Canada, June 2019. "Son Preferring Fertility Behaviors in Turkey" (MC. Robitaille-Blanchet).
- 13th Annual Meeting of the *Portuguese Economic Journal*, Evora, July 2019. ""Son preference, Sex-Selective Abortions, and Birth-Spacing in Canada".
- *IZA World Labor Conference*, Berlin 2018, "Information constraint and assortative preferences in choice of major."
- *European Society for Population Economics* (ESPE), June 2018, Antwerp, Belgium, "Information constraint and assortative preferences in choice of major."
- *Canadian Economic Association*, Montreal, Canada, June 2018. "Son preference, Sex-Selective Abortions, and Birth-Spacing in Canada" (With MC. Robitaille-Blanchet)
- *European Association of Labour Economists* (EALE), St. Gallen, Switzerland, September 2017. "Information constraint and assortative preferences in choice of major."
- *Canadian Economic Association*, NS, Canada, June 2017. "Intergenerational transmission of field of study." and "Asymmetric information and the immigrants' wage gap in Canada."
- *International Association of Applied Econometrics*, June 2016, Milan. "Developing an Index of Field-of Study Relatedness for Measuring Occupational Mismatch in Canadian Labour Markets."
- *Canadian Economic Association*, Ottawa, Canada, June 2, 2016. "Is the Lower Return to Foreign Education a Postarrival Problem in Canada?"

Invited/Workshops (Last 4 years)

- 1st Workshop of Applied Microeconomics. Invited presentation: Application of "dominance analysis" with health data: Identifying regional spreaders of a viral pathogen and their socio-spatial predictors in Nova Scotia. August 23-24 2022.
- 1st Joint Workshop of Applied Macro/Microeconomics. Invited presentation: "Causal Predictors of Cancer". Free University of Bolzano. December 16-18, 2021
- Free University of Bolzano. October 20, 2021. Invited presentation: Dynamics of the COVID-19 Spreadt by Modified Graphical Network Analysis.
- SIdE - Societa Italiana Di Econometria, (June 2019). Bank of Italy, Bertinoro, Italy. *Summer School on Machine Learning Algorithms for Econometricians.* 6 Days.
- Tinbergen Institute *Summer School on Genome-wide Data Analysis* - Amsterdam 2018. 5 Days.
- Valencia International *Bayesian Analysis Summer School*, VIBASS2 - University of Valencia, 2018. 6 Days.
- SIdE - Societa Italiana Di Econometria, (June 2017). Bank of Italy, Perugia, Italy. *Summer School on High-Dimensional Econometrics.* 6 Days.

Grants/Awards

- Research Nova Scotia (2020) Principle Investigator $34,900 – The Nova Scotia COVID19 Research Coalition. *The role of environmental determinants and social mobility in viral infection transmission in Halifax.*
- TUBITAK (2014) $30,000, Principle Investigator *Homeownership and Duration of Unemployment in Turkey.*
- Atlantic Metropolis Centre (2011) $5,000, Pilot Project Grant on immigration.
- NFI Indiana State University (2008) $19,500, *Social Security and Generational Accounting.*
- University of Delaware (2006) $2,000, Graduate Dissertation Fellowship Award.
- Internal research grants (2007 – 2021) $41,000 (in total), several different projects awarded by University of Windsor and Faculty of Graduate Studies and Research, Saint Mary's University.

Graduate Supervision

- Masters of Finance, Thesis 2021, Tariqal Islam,
- Masters of Finance, Thesis 2020, Yeonsil Yi,
- Masters of Applied Economics, MRP 2020, Jahnae Cox,
- Masters of Science in Computing & Data Analytics, Thesis 2019, Diven Sambhwani,
- Masters of Applied Economics, MRP 2017, Pat Marcuccio,
- Masters of Applied Economics, MRP 2016, Claudia Zamai,
- PhD in Economics, Dissertation 2009, Azad Haidar.

Teaching

- Higher Education Teaching Certification (a two-year special program for selected PhD students), at the University of Delaware (2003–2005).

Courses (Saint Mary's University, 07/2007 – Present):

- Machine Learning & Artificial Intelegence (**Master's Business Analytics**),
- Applied Statistics and Data Analysis (**Master's in Finance**),
- Econometrics and Business Forecasting (**Master's in Finance**).
- Machine Learning and Economics (**Master's in Applied Economics**)
- Introduction to Applied Machine Learning in R,
- Mathematical Economics,
- Econometrics,
- Intermediate Statistics,

- Research Seminar in Economics,

Achievements

- I was nominated to *Fr. William A. Steward Medal of Excellence in Teaching* by students in Saint Mary's University (2017),
- I was awarded *Excellent Teaching Award* at the University of Delaware (2005).
- I was awarded as the *Best Teacher* in the Summer School of Sabanci University (2005).
- To enhance students' data management skills and establish a more productive learning environment for data analytics techniques, I have designed a program for MEA and honour students (Economics) by Statistics Canada's Atlantic Research Data Centre to access major confidential micro data files. This program has been shown as a model program to other universities in Canada.
- I have developed and taught a course, `Introduction to Applied Machine Learning with R` in Winter 2020. It is the first and only machine learning course in the Sobey School of Business that also has programming Labs.

Service

University activities

- Invited to President's Research Roundtable for Artificial Intelegence. (October 16, 2020)
- Served in a special committee preparing a proposal for the Sobey School of Business Strategic Plan 2020-25,
- A member in Research Advancement Committee,
- A member in BComm Committee,
- Organized weekly Brown-Bag meetings in 2015 and 2016 at Sobey School of Business.

Contributions to the profession and community

- Co-organizer (24-25 August 2022) of 1st Workshop of Applied Microeconomics.
- Co-founder of MLportal, Research Portal on Machine Learning for Social and Health Policies,
- Organizer and lecturer of at Summer School (July 20-23, 2020) "Machine Learning for Economists and Applied Social Scientists",
- Organizer a webinar series at MLportal (July 23-24, 2020) "Machine Learning for Economists and Applied Social Scientists",
- Serving as a referee 7-10 times in multiple academic journals annually including the Journal of Housing Economics, Regional Science, IZA Journal of Labor Economics, Journal of Population Economics, Applied Economics.
- Member of the Reimagining the Future for Nova Scotians,
- My work was also featured in newspapers, social media, CBC, Global News, and National Post. See the latest Global News and here in CBC National.
- Presenter at Community Revitalization & Prosperity Network on What Machine Learning Can tell Us About the Post-Pandemic Labour Market.