

Yigit Aydede

Curriculum Vitae

Professor of Economics
Sobey School of Business, Saint Mary's University, Halifax, Canada
([GitHub - Personal Website](#))

July 2023

Highlights

I hold the [Sobey Professor](#) of Economics at Saint Mary's University in Halifax. While my foundation is in population economics, I've expanded into areas like genomics, unconventional data, disease surveillance, and machine learning. Additionally, I'm passionate about teaching data analytics at both the undergraduate and graduate levels.

- Starting July 1 in 2021, I am awarded [Sobey Professorship](#) in economics at Sobey School of Business for 5 years.
- I am a founder member of [Research Portal on Machine Learning for Social and Health Policies](#)
- I am 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.
- My recent book, [Machine Learning Toolbox for Social Scientists Applied Predictive Analytics with R](#), from Chapman & Hall/CRC will hit the shelves on September 22.
- I have been teaching [Introduction to Applied Machine Learning with R](#) and [Machine Learning & Artificial Intelligence](#) at the Master of Business Analytics in Sobey School of Business.

Positions and Education

- PhD in Economics, University of Delaware, USA, 2006.
- MBA, University of Delaware, USA, 2004.
- Assistant Professor - Saint Mary's University 2007 - 2012
- Associate Professor - Saint Mary's University 2012 - 2020
- Full Professor - Saint Mary's University 2020 - Present

Scholarship

Books

- [Machine Learning Toolbox for Social Scientists: Applied Predictive Analytics with R](#), September 2023.
- [R & Python Bootcamp for Data Analytics](#) - Online 2022

Refereed Publications

[Google Scholar](#)

- Identifying the regional drivers of influenza-like illness in Nova Scotia, Canada, with dominance analysis, *Nature, Scientific Reports*, 2023
- Speeding up for a son in Turkey. *Canadian Journal of Development Studies*. December 2022.
- 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 Post-arrival 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).

Work-in-progress

- Causal Predictors of Cancer by Sparsity (SSHRC) (Andrea Guisto, Mutlu Yuksel)
- Understanding the dynamics of a viral spread by sparse composite likelihood selection.
- Native-born-immigrant wage gap revisited: The role of market imperfections in Canada. (Atul Dar)
- [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

- Native-born-immigrant wage gap revisited: The role of market imperfections in Canada. (Atul Dar), (Canadian Labour Market and Skills Researcher Network) – WP50– 2022.
- 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)

- Understanding the dynamics of a viral spread by sparse composite likelihood selection. [EcoMod2023 International Conference on Economic Modeling and Data Science](#)
- *EUHEA 22 Conference* ([European Health 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 Spread 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

- I am among five faculty members in the Sobey School of Business that have been awarded the first Sobey Professorships in 2021. This new endowed professorships aim to advance highly innovative and creative multidisciplinary research and grow the scholarship impact of the Sobey School. The Sobey professors are endowed with one course reduction and 200 thousand dollar research funding for 5 years.
- [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

- PhD in Management, Dissertation 2022, Abdmutaleb Boshanna. “Diversity, Corporate Policies, and Social Movements: A Machine Learning Approach”.
- 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):

- MBAN 5550 Machine Learning & AI (**Master of Business Analytics**),
- MFIN 6603 Applied Statistics and Data Analysis (**Master in Finance**),

- MFIN 6609 Econometrics and Business Forecasting (**Master in Finance**).
- MAE 6692 Machine Learning and Economics (**Master in Applied Economics**)
- ECON 4848 Introduction to Applied Machine Learning in R,
- ECON 4403 Econometrics,
- ECON 3303 Statistics,
- ECON 4498 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 2019. It is the first and only machine learning course in the Sobey School of Business.

Service

University activities

- Acting Chair - Economics 2023
- Invited to President's Research Roundtable for Artificial Intelligence. (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 (10-11 August 2023) of [2nd Workshop of Applied Microeconomics](#).
- 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](#).

Professional

Before I had my PhD in 2006, I worked in the finance industry

- Assistant General Manager - Retail Banking, (1999–2002), ToprakBank, Istanbul, Turkey
- Chief Financial Officer, (1995–1998), Aviva Life Insurance, Istanbul, Turkey.
- Assistant General Manager - Actuary and Underwriting, (1991– 1995), VakifLife Insurance, Turkey.