# Matthew A. Turner

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# **Education:**

Ph.D., Economics, 1995, Brown University A.M., Economics, 1992, Brown University B.A., Majors in mathematics and English, 1987, University of California at Berkeley

# **Employment:**

Kenen Fellow, Princeton University, 2020-1

Professor of Economics, Brown University, 2014-

Director of Graduate Studies, Brown University, 2017-20

Professor of Economics, University of Toronto, 2007-14

Associate Professor of Economics, University of Toronto, 2001-7

National Fellow, Hoover Institution, Stanford University, 2001-2

Assistant Professor of Economics, University of Toronto, 1995-2001.

Marine Policy and Ocean Management Postdoctoral Fellow, Woods Hole Oceanographic Institution, 1994-5

High School Teacher, Landmark School, 1989-90

Computer Programmer, Wells Fargo Bank, 1987-89

#### **Affiliations:**

Research Associate, IBES, Brown University, 2024-; Research Associate, *National Bureau of Economic Research*, Cambridge MA, 2017-; Research Affiliate, *International Growth Center*, London, 2016-; Senior Research Fellow, *Property and Environment Research Center*, Bozeman MT, 2015-; Status only Professor of Economics, *University of Toronto*, 2014-9; Faculty Associate, *Population Studies Training Center*, Brown University, 2014-; Faculty Associate, *S4*, Brown University, 2014-.

#### **Short visits:**

Cowles Foundation (2018), London School of Economics (2001, 2016), IEB Urban Economics Summer School, Barcelona (2016); Property and Environment Research Center (2010-15,2017); Philadelphia Federal Reserve Bank (2009, 2016, 2019, 2022); New York Federal Reserve Bank (2009, 2010, 2012, 2015); Summer School in Transportation and Environment, European Assoc. of Environmental Economists, Venice (2009); Paris School of Economics (2009); Center for Operations Research and Econometrics, Belgium (2007); University of Iceland, Department of Economics (2006).

# Awards:

Kenen Fellow, Princeton University (2020); Visiting Fellow Einaudi Institute of Economics and Finance, Rome (2013); Julian Simon Fellow Property and Environment Research Center, Bozeman MT (2011, 2012); Lone Mountain Fellow, Property and Environment Research Center, Bozeman MT (2010, 2013-15); National Fellow, Hoover Institution (2001); Marine Policy and

Ocean Management Post-doctoral Fellow, Woods Hole Oceanographic Institution (1995); Abrahmson Award for outstanding thesis research, Brown University (1994)

# **Grants** (>5000\$):

- International Growth Centre, 2023, 19,700 GBP, Sewers and Slums in Developing World Cities International Growth Centre, 2023, 41,000 GBP, The Effect of Sewer Extension on Brazilian Cities
- NBER Economics of Transportation in the 21st Century, 2020, 37,000\$US, Does the US have an infrastructure cost problem: Evidence from the Interstate Highway System
- NBER Economics of Transportation in the 21st Century, 2019, 20,000\$US, Transportation Infrastructure in the US (with Gilles Duranton and Geetika Nagpal)
- *International Growth* Centre, 2018, 50,000 GBP, Air Pollution Exposure in Spatial Equilibrium (with Lint Barrage)
- *International Growth* Centre, 2017, 30,000 GBP, Determinants of global air pollution exposure (with Lint Barrage)
- *International Growth* Centre, 2015, 59,000 GBP, Subways and Urban Air Pollution (with Marco Gonzalez-Navarro)
- Societe du Grand Paris, 2014, 46,000 EU, Subways and Urban Growth in Europe (with M. Gonzalez-Navarro)
- International Growth Centre, 2014, 42,000 GBP, Transport Infrastructure, Urban Growth and Market Access in China (with L. Brandt, N. Baum-Snow, J. V. Henderson, and Q. Zhang)
- Social Science and Humanities Research Council of Canada, 2013-17, 132,000\$CA for research on urban form and driving
- Economic Research Forum (Egypt), 2012, 34,000\$US for research on, Alternative Finance Mechanisms for Infrastructure in Egypt: Will Users and Developers Pay? (with H. Osman, T. El-Diraby and M. Osman)
- Lincoln Institute, 2011, 30,000\$US for research on, Urban Transportation, Urban Growth and Changes in Urban Form in China (with N. Baum-Snow)
- Social Science and Humanities Research Council of Canada, 2010-12, 66,000\$CA for research on traffic congestion
- International Growth Centre, 2009-11, 83,000 GBP, Urban Transportation, Land Use, and Growth, Evidence from China 1995-2010 (with L. Brandt, N. Baum-Snow, J. V. Henderson, and Q. Zhang)
- Sustainable Prosperity, 2010, 13,500\$CA, The drivers of urban driving: Infrastructure, urban form and travel behavior (with Gilles Duranton)
- Social Science and Humanities Research Council of Canada, 2007-9, 60,000\$CA for research on urban growth and transportation
- Social Science and Humanities Research Council of Canada, 2004-7, 66,000\$CA for research on urban sprawl
- Social Science and Humanities Research Council of Canada, 2001-4, 64,000\$CA for research on urban sprawl (principal investigator: with Diego Puga and Henry Overman)
- National Science Foundation Grant, 1999, for research on property rights in rural China, 275,000\$US (co-investigator: with Loren Brandt, Dwayne Benjamin, Scott Rozelle and Peter Lindert)

- Social Science and Humanities Research Council of Canada, 1998-2000, 30,000\$CA for research on optimal regulation of fisheries
- Connaught Foundation, University of Toronto, 1996-8, 19,000\$CA for research on the political economy of common property management

**Co-Editor:** *Journal of Urban Economics* (2015-20)

Editorial boards: Journal of Urban Economics (2009-2015, 2020-), Regional Science and Urban Economics (2009-2016), Journal of Economic Geography (2011-2017), International Review of Environmental and Resource Economics (2012-2018), Journal of Transport Economics and Policy (2013-2019)

#### **Articles:**

- Subways and Urban Air Pollution, *AEJ:Applied Economics*, v14(1):164-96, 2022 (with Nicholas Gendron-Carrier, Marco Gonzales-Navarro and Stefano Polloni)
- Transportation Infrastructure in the US, in *Economic Analysis of Infrastructure*. E. Glaeser and J. Poterba Eds., University of Chicago Press, 2021 (with Gilles Duranton and Geetika Nagpal).
- Urbanization in the developing world: Too early or to slow? *Journal of Economic Perspectives*, v34(3):150-73, 2020 (with J. Vernon Henderson)
- Does Investment in National Highways Help or Hurt Hinterland Growth? *Journal of Urban Economics*, 2018 (with Nathaniel Baum-Snow, J. Vernon Henderson, Qinghua Zhang and Loren Brandt).
- Urban Form and Driving, *Journal of Urban Economics*, v108:170-91, 2018 (with Gilles Duranton).
- Subways and Urban Growth: Evidence from Earth, *Journal of Urban Economics*, v108:85-106, 2018 (with Marco Gonzalez-Navarro).
- Speed, *Review of Economics and Statistics*, v34 no2: 725-739, 2018 (with Gilles Duranton and Victor Couture)
- Benefits Transfer and Spatial Equilibrium, *Environmental and Resource Economics*, v69 no3:575-589, 2018.
- Transport Infrastructure and the Decentralization of Cities in the Peoples' Republic of China *Asian Development Review*, v34 no 2:25-50, 2017 (with Nathaniel Baum-Snow)
- Roads, Railroads and Decentralization in Chinese Cities, *Review of Economics and Statistics*, v48 no3: 435-48, 2017 (with Nathaniel Baum-Snow, Loren Brandt, J. Vernon Henderson and Qinghua Zhang). Winner: China Ministry of Education National University Outstanding Scientific Research Award (Top Grade)
- Transportation Costs and the Spatial Organization of Economic Activity, *Elsevier Handbook of Urban and Regional Economics volume 5*, p1339-1394, Elsevier, 2015, (with Stephen J. Redding). Gilles Duranton, J. Vernon Henderson and William Strange, Eds.
- Land Use Regulation and Welfare, *Econometrica*, v82 no4:1341-1403, 2014 (with Andrew Haughwout and Wilbert van der Klaauw)
- Roads and Trade: Evidence from the US, *Review of Economic Studies*, v81 no2: 681-724, 2014 (with Peter Morrow and Gilles Duranton)
- Adaptation to Climate Change: Evidence from 18th and 19th Century Iceland, *Advances and Applications in Statistics*, v28:77-108, 2012 (with Jeffrey S. Rosenthal, Jian Chen and Chunyan Hao)

- Urban Growth and Transportation, *Review of Economic Studies*, v79 no4:1407-1440, December 2012 (with Gilles Duranton)
- Adaptation to Climate Change in Preindustrial Iceland, *American Economic Review Papers and Proceedings*, v102 no3: 250-255, May 2012 (with Jeffrey S. Rosenthal, Jian Chen and Chunyan Hao.)
- The Effects of Land Transfer Taxes on Real Estate Markets: Evidence from a Natural Experiment in Toronto, *Journal of Economic Geography*, v12 no2: 327-354, March 2012 (with Ben Dachis and Gilles Duranton)
- The Fundamental Law of Highway Congestion: Evidence from the US, *American Economic Review*, v101 no6:2616-52, October 2011 (with Gilles Duranton)
- The Value of Information in Public Decisions, *Berkeley Electronic Journal of Economics and Policy*, v10 no 1:(Contributions) Article 76, 2010 (with Arvind Magesan)
- Cost-Benefit Analyses versus Referenda, *Journal of Political Economy*, v118 (1):156-187, February 2010 (with Martin Osborne)
- Decomposing the Growth in Residential Land in the United States, *Regional Science and Urban Economics*, v38: 487–497, September 2008 (with Henry Overman and Diego Puga)
- Fat City: Questioning the Relationship between Urban Sprawl and Obesity in the United States, *Journal of Urban Economics*, v63 no2: 385–404, March 2008 (with Jean Eid, Henry Overman, and Diego Puga)
- The Usefulness of Imperfect Elections, *Economics and Politics*, v19 no3: 453-480, 2007 (with Loren Brandt)
- A Simple Theory of Smart Growth and Sprawl, *Journal of Urban Economics*, v61 no 1: 21-44, 2007
- Causes of Sprawl: A Portrait from Space, *Quarterly Journal of Economics*, v121 no2: 587-633, 2006 (with Diego Puga, Henry Overman and Marcy Burchfield)
- Meetings with Costly Participation: Reply, *American Economic Review*, v95 no4: 1351-54, 2005 (with Martin Osborne and Jeffrey Rosenthal)
- Landscape Preferences and Patterns of Residential Location, *Journal of Urban Economics*, v57 no1: 19-54, January 2005
- Meetings with Costly Participation: An empirical analysis, *Review of Economic Studies*, v72 no1: 247-268, January 2005 (with Quinn Weninger)
- Local Government Behavior, Bureaucratic Incentives, and Tenure Security in Rural China Journal of Institutional and Theoretical Economics, v160 no4: 627-662, December 2004 (with Loren Brandt and Scott Rozelle)
- Meetings with Costly Participation, *American Economic Review*, v90 no4: 927-43, 2000 (with Martin J. Osborne and Jeffrey Rosenthal)
- Tradition and Common Property Regulation, *Canadian Journal of Economics*, v32 no3: 673-87, 1999
- Parental Altruism and Common Property Regulation, *Canadian Journal of Economics*, v30 no4a: 809-21, 1997
- Quota induced Discarding in Heterogeneous Fisheries, *Journal of Environmental Economics and Management*, v3 no2: 186-95, June 1997
- Value Based ITQ's, Marine Resource Economics, v11: 59-69, September 1996
- Industrial Development in Cities, *Journal of Political Economy*, v103 no5: 1067-89, 1995 (with J. V. Henderson and A. Kuncoro). Reprinted in "The Growth of Cities", Zoltan J. Acs, Ed. Edward Elgar, UK, 2006

# Other publications:

- Do Subways Improve Urban Air Quality? *VoxDev*, January 25, 2021 (with Nicholas Gendron-Carrier, Marco Gonzales-Navarro and Stefano Polloni)
- Local transportation policy and economic opportunity, *The Brookings Institution, Hamilton Project* policy proposal 2019-03, 2019.
- Providence's Choice: Streetcars or Snow removal, *Providence Journal*, May 14, 2015 (with Neil Mehotra)
- The Fundamental Law of Road Congestion and Its Implications for Transportation Policy, *Weekly Policy Commentary*, Resources for the Future, February 19, 2010. Reprinted in *PERC reports*, volume 29, No.3, Fall 2011.
- Toronto's Damaging Tax on Mobility, *National Post*, December 16, 2008 (with Ben Dachis and Gilles Duranton)
- Sand in the Gears: Evaluating Toronto's Land Transfer Tax, C.D. Howe working paper no. 277, December 2008 (with Ben Dachis and Gilles Duranton)
- Review of 'Green Cities' by Matthew Kahn, *Regional Science and Urban Economics*, v38: 404-5, 2008
- Mayor's Tax on Moving No Way to Balance Books, *Toronto Star*, September 24, 2007 (with Gilles Duranton)
- Extinction by Miscalculation: The Threat to Cultus and Sakinaw Lake Sockeye, Submission to the cabinet, 2004 (with Mart R. Gross, Pablo Montagnes, Mike Parkes, Paul Riis, and Barbara Roberts)
- Beyond the pipe: The importance of wetlands and upland conservation practices in watershed management, Submission to the Walkerton inquiry, Toronto, Ontario, 2001 (with T. Shane Gabor, April Kiers North, Lisette C. M. Ross, Henry R. Murkin, and James S. Anderson)

# **Research in progress:**

Does the US have an Infrastructure Cost Problem? Evidence from the Interstate Highway System, with Neil Mehrotra and Juan Pablo Uribe (under review)

Foundations of Cities, with Jacques Thisse and Philip Uschev (revision requested, JUE)

The Value of Sewers: Evidence from 19th Century Chicago, with Michael Coury,

Toru Kitagawa, and Allison Shertzer (in revision, REStat)

Equilibrium Particulate Exposure, with Lorenzo Aldeco and Lint Barrage

Sewers and Slums, with Sean McCulloch and Matthew Schaelling

Bus Rapid Transit, Urban Growth and Pollution, with Nic Gendron-Carrier and Marco Gonzalez-Navarro

Housing Policy and Housing Outcomes, with Fernando Ferreira

Urban Growth Accounting, with David Weil

# Field work:

Along with Loren Brandt, Dwayne Benjamin and Scott Rozelle, I spent two weeks in rural China interviewing rural agricultural households and village leaders. Our objective was to refine a survey on property rights that was conducted late in 2000. (July 2000)

#### **Undergraduate courses:**

Intermediate Microeconomics, Environmental Economics, Resource Economics, Economics of Global Warming, Urban Economics. Guest lecturer: Conservation Biology

#### **Graduate courses:**

Graduate Microeconomics (price theory), Graduate Microeconomics (information), Graduate Urban Economics, Graduate Environmental Economics

# Ph.D. advisees (\*=principal):

Juan Pablo Uribe\*, 2022 (Cornerstone), Aaron Weisbrod\*, 2021 (University of Toronto); Lorenzo Aldeco\*, 2020 (Central Bank of Mexico); Stefano Polloni\*, 2019 (Mapdwell); Jorge Perez\*, 2018 (Central Bank of Mexico); Girija Borker, 2018 (World Bank); William Violette, 2018 (FTC); Nicolas Gendron-Carrier, 2018 (McGill); Guillermo Alves\*, 2017 (CAF); Heitor Pellegrina, 2017 (NYU Abu Dhabi); David Glick, 2017 (Analysis Group); Michelle Marcus, 2017 (Vanderbilt); Graham Beattie\*, 2016 (University of Pittsburgh), Victor Couture\*, 2013 (University of California at Berkeley); Branko Boscovic, 2012 (University of Alberta); Arvind Magesan, 2010(University of Calgary); Jean Eid\*, 2007 (Wilfred Laurier); Leslie Shiell, 1997 (University of Ottawa)

#### Other:

Guest lecture: Palmerston Elementary, Toronto (2006) "An experimental double auction" Visiting researcher, US Bureau of Labor Statistics, June 2005-7

#### Administration and service:

President, Urban Economics Association, 2022-4; Local organizer First Online World Conference of the Urban Economics Association, 2020; Organizer Urban Economics Association Online Summer Lecture Series, 2020; Economics of Transportation in the 21st Century Data Steering Group, 2020; Vice President, Urban Economics Association, 2020-2; S4 Advisory committee, Brown, 2017-; PSTC Training Committee, Brown, 2018-20; Director of Graduate Studies, Brown, 2017-20; Program committee, PERC conference on adaptation to climate change, 2011, 2015; Urban Economics Association annual meetings, 2010-12; Organizer Ph.D. micro-economics comprehensive exam, Toronto, 2007-12; Organizer Real Estate Urban Economics Seminar, Toronto, 2008-10; Departmental IT committee, Toronto, 2006-7; Chair departmental IT Committee, Toronto, 2004-6; University Committee on Standing, Toronto, 2003-5; Graduate Admissions committee, Toronto, 2002-5, 2008-2013, Brown 2015; Oversight of the Joint Economics and Environmental Studies MA degree, Toronto, 2000; Division of Environment Steering Committee, Toronto, 1996-8.