Jesse Tweedle

http://jesse.tw; jesse.tweedle@gmail.com

Summary: Economics PhD with 3+ years of industry applying computational econometric methods to big data as a Research Economist.

Languages

R, Stata, SQL, Python, Matlab, SAS, Java, Javascript, D3.js, ArcGIS, LaTeX

Education

University of Calgary

> Ph.D., Economics, "Three essays on empirical networks and trade." 2011–2018 (*Expected*)

> M.A., Economics, "An essay on spatial competition." 2007–2009

Mount Allison University

> B.A. (Hons.), Math/Econ & CS minor, "An econometric study of orange juice futures." 2003–2007

Experience

Research Economist 2014–Present

Canadian Centre for Data Development and Economic Research (CDER), Economic Analysis Division, Statistics Canada

- Developed, cleaned, validated large confidential administrative shipment database (30m+ records). In R, SAS, SQL, and Stata. (Public use version available: link.)
- Use econometric methods appropriate for each situation: fixed effects models, gravity models, logistic regression, maximum likelihood, supervised machine learning.
- Co-wrote research reports and articles on trade and networks to inform policymakers (Industry Canada and Senate Committee on Interprovincial Trade).
- Worked with Communications Division to write and edit reports and design and deploy data visualizations

Instructor 2014–2015

> Math Camp, Dept. of Economics, University of Calgary

Research Assistant

- For Trevor Tombe, Dept. of Economics, University of Calgary 2011–2014
  - Paper: "The Missing Food Problem: Trade, Agriculture, and International Productivity Differences", https://www.aeaweb.org/articles?id=10.1257/mac.20130108
  - Stata programming: programmed method to test coefficient and standard error estimates based on randomly selected samples of countries in the world

- For Robert Rosebrugh, Dept. of Math and Computer Science, 2003–2006
  Mount Allison University
  - Java programming for the mathematical software Graphical Database for Category Theory (GDCT). Available: http://www.mta.ca/~rrosebru/project/gdct/index.html.
  - Reduced codebase by 25% (≈40,000 lines to 30,000) by improving the Object Oriented class and method organization.

Publications

1. "Correlated shocks within firms". *Economics Letters*, Volume 163, February 2018, pp. 95–97.

2. "A Hotelling style model of spatial competition for a convenience good", with B. Curtis Eaton. 2012. *The Annals of Regional Science*, Vol. 49, Issue 2, pp. 447–469.

Working papers

1. "The Microfoundations of Aggregate Volatility: Productivity, Geography or Network Asymmetry?" Paper: http://jesse.tw/papers/tweedle-network-volatility.pdf. Code: https://github.com/tweed1e/networkasymmetry.

2. "Going the Distance: Estimating the Effect of Provincial Borders on Trade when Geography (and Everything Else) Matters," with R. Bemrose and W. Brown. (Submitted.) http://jesse.tw/papers/tweedle-trade-barriers-2016.pdf.

3. "Firm Networks, Borders and Regional Economic Integration," with W. Mark Brown and Afshan Dar-Brodeur. (R&R).

4. "Link Prediction In Heterogeneous Information Networks: Application to Identifying Firm Value Chains." Work in progress.

5. "Specialised vs. general human capital and firm productivity: evidence from Canadian matched employer-employee data," with Margaret Leighton. Work in progress.

Service

Graduate Student Association, University of Calgary
- Academic Standing Committee, Award Committee, Economics Department Rep.   2013-2014

Economics Graduate Association, University of Calgary
- VP Finance   2013-2014

References

Trevor Tombe, Ph.D.
   Assistant Professor   Phone: (403) 220-8068
   Department of Economics   E-mail: ttombe@ucalgary.ca
   University of Calgary

W. Mark Brown, Ph.D.
   Chief, Urban and Regional Analysis   Phone: (613) 951-7292
   Economic Analysis Division   E-mail: mark.brown@canada.ca
   Statistics Canada

Margaret Leighton, Ph.D.
   Assistant Professor   Phone: +44 (0) 1334 462442
   School of Economics and Finance   E-mail: mal22@st-andrews.ac.uk
   University of St Andrews

Brent Cohn, M.A.
   Data Scientist   E-mail: bcohn@twitter.com
   Twitter