Jesse Tweedle

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Summary: Economics PhD with 3+ years of industry experience 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.
- 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, as well as 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, Mount Allison University

2003-2006

- 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% (\approx 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?"
- 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.)
- 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 employeremployee 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.

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Department of Economics E-mail: ttombe@ucalgary.ca
University of Calgary

W. Mark Brown, Ph.D.

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Statistics Canada

University of St Andrews

Margaret Leighton, Ph.D.

Assistant Professor

School of Economics and Finance

Phone: +44 (0) 1334 462442

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