

Monica Alexander

725 Spadina Avenue, Toronto, ON, M5S 2J4
monicaalexander.com
monica.alexander@utoronto.ca

Academic Positions

University of Toronto

Assistant Professor, Statistical Sciences and Sociology

July 2018 – *current*

Education

Ph.D (Demography), **University of California, Berkeley**, 2018.

Dissertation title: Bayesian Methods for Mortality Estimation.

Committee: Josh Goldstein (chair); Ken Wachter; Dennis Feehan; Jas Sekhon.

M.Arts (Statistics), **University of California, Berkeley**, 2015.

M.Social Research (Demography), **Australian National University**, 2013.

B.Science (First Class Honors) (Maths and Chemistry), **University of Tasmania**, 2008.

Papers

Peer-reviewed articles

Gemmill, A, Kiang, M.V., and **Alexander, M.**, ‘Trends in pregnancy-associated mortality involving opioids in the United States, 2007–2016’, *American Journal of Obstetrics and Gynecology*, forthcoming.

Alexander, M., Kiang, M.V., and Barbieri M., ‘Trends in Black and White Opioid Mortality in the United States, 1979–2015’, *Epidemiology*, 2018, 29(5): 707–715.

Alexander, M., and Alkema, L., ‘Global Estimation of Neonatal Mortality using a Bayesian Hierarchical Splines Regression Model’, *Demographic Research*, 2018, 38(15): 335–372.

Alexander, M., Zagheni, E., and Barbieri, M., ‘A Flexible Bayesian Model for Estimating Subnational Mortality’, *Demography*, 2017, 54(6): 2025–2041.

Howlett, M., Gray, M., and Hunter, B., ‘Wages, government payments and other income of Indigenous and non-Indigenous Australians’, *Australian Journal of Labour Economics*, 2016, 19(2): 53–76.

Hunter, B., **Howlett, M.**, and Gray, M., ‘The Economic Impact of the Mining Boom on Indigenous and Non-Indigenous Australians’, *Asia & the Pacific Policy Studies*, 2015, 2(3): 517–530.

Gray, M., **Howlett, M.**, and Hunter, B., ‘Labour Market Outcomes for Indigenous Australians’, *The Economic and Labour Relations Review*, 2014, 25(3): 497–517.

Biddle, N., **Howlett, M.**, Hunter, B., and Paradies, Y., ‘Labour Market and Other Discrimination Facing Indigenous Australians’, *Australian Journal of Labour Economics*, 2013, 16(1): 91–113.

Other published papers

Hunter, B., **Howlett, M.**, and Biddle, N., ‘Modelling Exposure to Risk of Experiencing Discrimination in the Context of Endogenous Ethnic Identification’, *IZA Discussion Paper #8040*, March 2014.

Gray, M., Hunter, B., and **Howlett, M.**, ‘Indigenous Employment: A Story of Continuing Growth’, *CAEPR Topical Issue 2/2013*, Australian National University, Canberra.

Current working papers and manuscripts in progress

Alexander, M., ‘Temporal smoothers for use in demographic estimation and projection.’, https://www.monicaalexander.com/pdf/temporal_smoothing.pdf.

Alexander, M., and Goldstein, J., ‘Deaths without denominators: using a matched dataset to study mortality patterns in the United States.’
https://www.monicaalexander.com/pdf/bayesian_censoc.pdf.

Alexander, M., and Alkema, L., ‘A Bayesian hierarchical model for estimating subnational female populations in developing countries.’
https://www.monicaalexander.com/pdf/bayesian_kenya.pdf.

Alexander, M., Polimis, K., Zagheni, E., ‘The impact of Hurricane Maria on out-migration from Puerto Rico: Evidence from Facebook data.’, working paper available on request.

Alexander, M., and Alexander, R., ‘The Effect of Events on Discussion in the Australian Federal Parliament (1901-2017)’,
Abstract: https://rohanalexander.com/pdf/2018-10-22-first_page.pdf.

Chung, P.H., and **Alexander, M.**, ‘Kin Dependency Ratios: An Extension and Application of the Goodman Method for Estimating the Availability of Kin’,
<https://p-chung.com/paa/2019/abstract/>.

Kiang, M.V., **Alexander, M.**, Zhang, Z., and Chen, J., ‘The spatial distribution of opioid mortality by race in the United States, 1999-2015.’
https://github.com/mkiang/opioid_hotspots.

Zagheni, E., Polimis, K., **Alexander, M.**, Weber, I., and Billari, F., ‘Combining Social Media Data and Traditional Surveys to Estimate and Predict Migration Stocks.’
<https://paa.confex.com/paa/2018/meetingapp.cgi/Paper/23641>.

Professional Experience

University of Massachusetts, Amherst <i>Graduate Student Researcher</i>	January 2017 – June 2018
World Health Organization <i>Consultant</i>	September 2016 – June 2017
Data Science for Social Good <i>Fellow</i>	May 2016 – September 2016
Human Mortality Database <i>Graduate Student Researcher</i>	January 2015 – May 2016
UNICEF Technical Advisory Group <i>Consultant</i>	March 2014 – July 2015

The Centre for Aboriginal Economic Policy Research*Research Officer*

April 2012 – December 2014

Reserve Bank of Australia*Analyst/Senior Analyst*

February 2010 – June 2013

Teaching Experience

University of California, Berkeley*Instructor*, Formal Demography Workshop

June, 2017

Instructor, Formal Demography Workshop

August, 2015

Graduate Student Instructor, Demographic Methods

Fall Semester, 2014

University of Tasmania*Tutor*, Calculus and Applications I

Semester 1, 2009

Tutor, Data Handling and Statistics I

Semester 2, 2008

Demonstrator, Chemistry I

Semester 1, 2008

Other*Instructor*, Introduction to Causal Inference, ITAM

March, 2017

Instructor, IUSSP Workshop on social media data and demography

August, 2016

Conference presentations and invited talks

2018***Combining social media data and traditional surveys to predict migration stocks***

European Symposium in Computational Social Science: Cologne, Germany (December*)

School of Geography, *University of Queensland* (November*)Institute for the Study of Social Change, *University of Tasmania* (October)

Symposium of Digital Demography: Rostock, Germany (October)

Center for Population Dynamics, *McGill University* (September)

European Population Conference: Brussels, Belgium (June)

(*) *indicates forthcoming****Estimating subnational populations of women of reproductive age***

International Society for Bayesian Analysis World Meeting: Edinburgh, Scotland (June)

European Population Conference: Brussels, Belgium (June)

Max Planck Institute for Demographic Research (May)

PAA Annual Meeting: Denver, CO (April)

Institute of Disease Modeling Symposium: Seattle, WA (April)

The spatial distribution of opioid mortality by race in the United States

European Population Conference: Brussels, Belgium (June)

2017***Modeling and understanding mortality disparities***School of Demography, *Australian National University* (December)Department of Statistics, *University of Toronto* (December)Department of Sociology, *University of Washington, Seattle* (November)***Temporal smoothers for use in demographic estimation***

IUSSP: Cape Town, South Africa (October)

Statistics working group, *University of Massachusetts, Amherst* (February)

Opioid-related deaths by race in the United States: trends and patterns in multiple causes of death

PAA Annual Meeting: Chicago, IL (April).

2016

A flexible Bayesian model for estimating subnational mortality

Statistics working group, *University of Massachusetts, Amherst* (November)

European Population Conference: Mainz, Germany (August)

PAA Annual Meeting: Washington, DC (April)

Demography brown bag, *University of California, Berkeley* (March)

2015

Global estimation of neonatal mortality

UNICEF Inter-agency Group on Mortality Estimation (March, April and May)

PAA Annual Meeting: San Diego, CA (April)

2014

Social and cultural determinants of the self-assessed health of Indigenous Australians

PAA Annual Meeting: Boston, MA (April) (Poster)

Honors

Doctoral Completion Fellowship (*UC Berkeley*) 2017-2018

Elizabeth Scott Memorial Award (*UC Berkeley*) 2015

Statistics MA student showing the most promise in statistical research.

Regents-Intern Fellowship (*UC Berkeley*) 2013-2015

Lado Ruzicka Prize in Social Research (*Australian National University*) 2013

Awarded to the most outstanding Master of Social Research candidate.

W.D. Borrie Prize (*National essay competition, Masters category*) 2012

For best student paper on a population-related topic.

University Medal (*University of Tasmania*) 2008

One of three awarded to the most outstanding Science and Technology undergraduates.

Edith Rita Lowenstern Prize (*University of Tasmania*) 2008

Awarded to the most outstanding mathematics honors student.

Premier of Tasmania National Scholarship (*University of Tasmania*) 2005-2008

One of four undergraduate scholarships awarded to outstanding secondary school students.

Australian Student Prize (*National award*) 2004

For academic excellence in secondary school. One of 500 awarded nationally, and 13 awarded to Tasmanian students.

Service

Member: Technical Advisory Group to the WHO on Violence Against Women (Estimation and Data).

Reviewer: *Australian Journal of Labour Economics; Annals of Applied Statistics; Demography; Demographic Research; Epidemiology; European Journal of Population; Genus; Population Research and Policy Review.*