

EDUCATIONAL EXPERIENCE

- Ph.D.: Environmental and Resource Economics, Michigan State University, 2004
Focus: Reducing compliance costs for firms due to environmental water quality standards (TMDLs)
- M.A.: Economics, Michigan State University, 1999
- M.S.: Agricultural Economics, University of British Columbia, 1995
Focus: Market-driven Choices of Rural Households in Nepal with Water Constraints
- B.A.: Economics, University of Manitoba, 1991
- B.C.Sc. Computer Science Honours, University of Manitoba, 1988

EMPLOYMENT EXPERIENCE

Post Doctoral Research Fellow

Dept. of Environmental Science and Policy,
University of California Davis, Davis, USA

May 2015 – present

- Member of a multi-disciplinary project team undertaking socio-economic vulnerability assessment of ecosystem services from national forests in southern California
- Leading economic valuation of key ecosystem services including water quality, water quantity, carbon sequestration, air quality, and tribal cultural sites, and assisting valuation of recreational benefits
- Underlying spatial bio-physical data from various models being modified or created specifically for the project by project team members
- Quantifying changes in economic value of market and non-market ecosystem services provided by these National Forests in response to climate-related changes, such as the changes in the fire regime frequency
- Quantification relies primarily upon developing benefit transfer functions so that economic valuation estimates can be scaled up for entire applicable region (USFS Region 5, California and Hawaii)

Consultant

Vancouver, BC

January 2014 – present

- Conduct independent, applied policy-oriented economic research and analysis relating to complex strategic public issues such as sustainability, transportation, education and health
- Quantify market and non-market services, including use and non-use values within a data-constrained environment
- Develop and implement models, interpret results that provide robust, quantitative insight for decision-making
- Synthesise findings and identify current best practices to prioritise policy options and recommendations for clients
- Contribute expertise using appropriate economic, financial and socio-economic research and analysis, given policy questions, budgets and timelines
- Adept at designing survey instruments for valuation of non-market benefits, quantitative analysis, benefit cost analysis, and data infrastructure development
- Flexible work style and nimble approach ensure successful accommodation of changing scope and work priorities
- Possess strong interpersonal and communication skills, as well as lucid, adaptable writing to effectively reach different audiences

Manager, Forecasting and Analytics

Strategic Plans and Policy, TransLink, Burnaby

January 2010 – May 2013

- Provided intellectual oversight and guidance of applied, interdisciplinary research analyses, including the development of foundational econometric and geospatial models, to develop an integrated approach for providing

support for a wide range of policy decisions relating to the environment, large capital investments, and sustainable urban neighbourhoods

- Conducted strategic policy analytics at the intersection of public interests and political reality, focussing on improving communities through better allocation of multi-billion dollar investments and resources to deliver public services
- Guided and implemented design and development of numerous research studies, from problem identification, primary data collection, model development, analysis and report writing to information dissemination
- Modelling and quantitative initiatives completed with the understanding that scope, schedule and budget realities must be met while still delivering rigorous and defensible results
- Directed and developed demand models, valuation studies, appropriate economic, financial and socio-economic research and analysis
- Worked independently and within teams of multi-disciplinary professionals (e.g. policy specialists, planners, engineers, accountants, lawyers, etc.) to address complex and time sensitive issues
- Successfully built and managed team of up to 25 multi-disciplinary staff and consultants, implementing up to 30 core business projects/tasks, for natural resources such as air quality and greenhouse gases
- Developed new collaborative research initiatives with sister agencies, municipal and provincial governments, universities, as well as agencies in other countries (UK, US, Australia)
- Actively consulted with internal and external stakeholders and advisors to ensure political sensitivities and reputational risks were minimised
- Wrote and delivered conference presentations, research reports, as well as clear non-technical briefing notes for Executive, Board of Directors, public and the Commissioner
- Selected to receive specialised leadership, team management and project management training
- Successfully disseminated findings and technical concepts to non-economists via publications aimed at internal audiences, media/journalists, annual reports, policy makers and politicians

Acting Executive Director (contract)

Population Data BC, University of British Columbia, Vancouver

July 2008 – August 2009

- Responsible for oversight of multi-university health data organisation, with approximately 15 staff and consultants at UBC site
- Oversaw development and implementation of information sharing agreements with provincial ministries and other health service providers, such as the BC Ambulance Service
- High quality research data linked various large datasets, such as health, the environment and education data to address a wide array of public policy issues of national and international importance
- Ensured existing plans and timelines for simultaneous projects and tasks were met across the entire breadth of the organisation, accommodating changing priorities
- Successfully created and implemented work plans and priorities aligned with team's strategic direction by managing budgets, deliverables and relationships with oversight boards, provincial ministries and granting agencies, many of whom had competing agendas and political goals
- Continued to develop and grow the team by filling key roles to ensure projects were completed in a timely manner
- Fostered collaboration with relevant policy stakeholders, such as government ministries, university departments and other external partners, to validate work programme and capitalise on research opportunities

Research Economist (contract)

Intergovernmental and International Affairs, Environment Canada, Vancouver

March 2008 – July 2008

- Estimated environmental values of select multi-million dollar government-sponsored local and regional water quality projects, freshwater and marine, specifically accounting for transboundary issues with vulnerable First Nations populations and the U.S.
- Using natural capital approach, investigated appropriate performance indicators, collected data, and wrote comprehensive report as part of business case to fund future similar multi-year, multi-million dollar projects

Lorie Srivastava

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- Benefits included estimating value of ecosystem services, improved water quality, employment, recreational benefits, fishery and habitat improvements
- Analysed potential effects of BC Carbon Tax measures aimed to improve environmental quality on household behaviour and economic growth, using the Porter Hypothesis as an analytical framework
- Worked with biologists to undertake valuation study to estimate benefits of future water quality improvement initiatives in the Lower Mainland, recommended data to be collected and designed corresponding survey instrument
- Conducted feasibility study for a valuation study of the benefits of future water quality improvement initiatives in agriculturally-intensive regions, where respondents evaluated the trade-offs between environment and health attributes

Faculty

Kwantlen Polytechnic University, Metropolitan Vancouver

Jan. 2006 – Dec 2007

- Taught principles of micro and macro economics, and econometrics to upper level undergraduate students
- Used taxes and subsidies to illustrate economic concepts of equilibrium, efficiency, and public taxation policy to address public policy issues such as climate change, water pollution, and forestry investments in assignments and exams
- Successfully communicated abstract economic knowledge in an engaging manner to adult learners with diverse educational backgrounds
- Joined efforts with the Institute of Sustainable Horticulture at Kwantlen to use experimental economic survey design theory to conduct valuation of diminished water quality from pesticides

Post Doctoral Research Fellow

Dept. of Resource Economics and Environmental Sociology,
University of Alberta, Edmonton, Canada

Mar. 2005 – Dec. 2005

Oct. 2003 – Oct. 2004

- Used behavioural economic methods to empirically investigate the effects of environmental and health policy instruments on household behaviour
- Examined cost effectiveness of various environmental, food and health policy options that align private and public interests through different incentive mechanisms
- Designed and implemented experimental economic games to estimate consumer welfare and premiums paid for information regarding environmental and health labels on common every day food products
- Programmed state-of-the-art mobile devices to conduct field experiment surveys, creating the database to be used for modelling and quantitative analytics
- Analysed data from national attribute-based survey to estimate value of perceived morbidity and mortality risk reductions from chlorine-treated drinking water, and their determining factors
- Used survey and household data in latent class model to identify market segments for health and environmental benefits from drinking water
- Implemented models using different statistical/econometric packages such as STATA, SAS, R and SPSS
- Results and methods reported in peer-reviewed academic journals, media and used in policy recommendations to government agencies/authorities
- Drafted communication strategy to ensure research results were disseminated to policy makers, public and media
- Represented research team in the general work of the funding body at national level conferences, as well as with governmental meetings and funding agencies

Research Officer

Economics Division, Parliamentary Research Branch, Parliament of Canada, Ottawa Sept. 2001 – Aug. 2003

- Delivered non-partisan, professional, and confidential research analysis and policy advice to Members of Parliament, Senators and parliamentary committees on a wide range of national public policy issues, all under tight deadlines

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- Assigned as the Economic Research officer to provide economic research and policy support to several Standing Committees in the Senate and the House of Commons, such as the Senate Committee on Agriculture and Forestry, the House of Commons Standing Committee on Fisheries and Oceans and the House of Commons Committee on Agriculture and Agri-Food
- Co-authored Senate's first report on mitigation of climate change for agriculture and forestry, with a special focus on forest resources
- Successfully bridged analysis and policy option through concrete examples after conducting numerous literature reviews, and interpreting modelling and quantitative analyses
- Drafted analytical documents, briefing notes, presentations and reports for consideration by Parliamentarians, working committees
- Managed relationships with MPs, Senators, their assistants and senior government personnel to ensure high level of satisfaction and quality of deliverables in an interdisciplinary, politically-sensitive and highly confidential environment
- Represented research team at external public meetings to promote Committee and Parliamentary work, including at international conferences

Research Assistant

Michigan State University, East Lansing, MI

Sept. 1995 – Aug. 2001

- Conducted extensive empirical policy analyses of the effectiveness of Total Maximum Daily Loads under the U.S. federal Clean Water Act to improve water quality in the presence of uncertainty
- Developed an economic model within a game-theoretical framework to examine the effect of public performance standards and uncertainty on pollution management from small firms, specifically dairy farms
- Applied numerous econometric/statistical and simulation programmes such as STATA, SPSS, SAS, LIMDEP, and GAUSS
- Developed primary survey instrument and conducted focus groups with stakeholders to collect both qualitative and quantitative data
- Developed excellent applied skills in cross-sectional and time-series econometric analysis and received ESRI certification in ArcView GIS

Research Assistant

University of British Columbia, Vancouver

Sept. 1991 – Dec. 1994

- Used household-based econometric model to examine market-driven cropping decisions of vulnerable peasant households in middle mountains of Nepal
- Developed primary survey and collected access to water and socio-economic data to quantitatively model household decisions to participate in cash crop markets in peri-urban areas around Kathmandu
- Used macroeconomic, sectoral and household data to investigate household behaviour in the face significant production constraints
- Able to adapt to foreign countries and languages well and complete difficult tasks with limited resources

Multimedia Programmer Analyst

University of Manitoba, Winnipeg, Canada

July 1989 – July 1991

- Designed and programmed computer-based training courseware programmes, used by university, industry, and government personnel
- Worked with an icon-based multimedia authoring language across multiple operating systems
- Created business relationships with industry, government and academic institutions by fostering collaboration in areas of mutual interest
- Actively disseminated accomplishments of the Institute at external meetings, promoted its work at conferences and government meetings

REFEREED PAPERS

Srivastava, L., *Financing Public Investment in Environmental Benefits: Household Behaviour in Response to Economic Incentives*. November 2014. Submitted.

Srivastava, L. and S. Owens, *Demand for Transport Services: An Econometric Approach with Limited Data*. December 2014. Under revision.

D. Volinskiy, W. Adamowicz, M. Veeman, **L. Srivastava**. Does Choice Context Affect the Results from Incentive-Compatible Experiments? The Case of Non-GM and Country-of-Origin Premia in Canola Oil? *Canadian Journal of Agricultural Economics* (June 2009). 57: 205-221.

Hu, W., A. Hünemeyer, M. Veeman, W. Adamowicz, **L. Srivastava** (2004): Trading off Health, Environmental and Genetic Modification Attributes in Food. *European Review of Agricultural Economics* (September 2004) 31: 389-408.

Lorie Srivastava and Sandra Batie (2001): *Michigan Dairy Farmers Consider Water Quality Regulations: Total Maximum Daily Loads*. Michigan Dairy Review. Michigan State University. January 2001.
<http://www.msu.edu/user/mdr/archives/mdrvol6no1.pdf>

SELECTED PAPER PRESENTATIONS

L. Srivastava and D. Krieger. *Econometric Demand Model for the Canada Line*, Selected presentation for Transportation Association of Canada Meeting, Ottawa, April 2012.

L. Srivastava. *Quantifying Demand for Public Transport Services*, Selected presentation for Transportation Association of Canada Meeting, Edmonton, September 2011.

Adamowicz, W., **L. Srivastava**, and M. Veeman. *Auctions, Anchoring and Attention: The Effect of Choice Context and Endowment in Experimental Auctions of the Valuation of Canola Oil Attributes*, Selected paper for the Canadian Agricultural Economics Society Annual Meeting, Montreal, May 2006.

Veeman, M, W. Adamowicz, W. Hu, A. Hünemeyer, **L. Srivastava**. Canadian Consumers' Trade-offs of Health, Environmental and Genetic Modification Attributes for Food, Selected Poster for the Genome Canada GELs3 Conference, Toronto, March 2005.

Adamowicz, W., Dupont, D., Krupnick, A., and **Srivastava, L.** *Preference Trade-Offs for Drinking Water Risks*, Selected paper for the Canadian Resource and Environmental Economics (CREE) Study Group Annual Meeting, Calgary, October 2004.

Lorie Srivastava and Sandra S. Batie (2001). *The Effect of Uncertainty on Compliance with Environmental Performance Standards: Total Maximum Daily Loads in Michigan*. Final Report to the Great Lakes Protection Fund. Lansing, Michigan.

Lorie Srivastava and Sandra Batie (2001): *The Effect of Uncertainty on Compliance with Flexible Environmental Performance Standards: Total Maximum Daily Loads in Michigan*. Selected paper for the Canadian Agricultural Economics Society (CAES) Annual Meeting, Chicago, IL, USA, August 2001.

Lorie Srivastava and Sandra S. Batie (2000): *The Effect of Environmental Performance Standards on Agriculture: Total Maximum Daily Loads in Michigan*. Selected paper for the Canadian Agricultural Economics Society (CAES) Annual Meeting, Vancouver, BC, Canada, June 2000.

Lorie Srivastava and Sandra S. Batie (1999): *The Porter Hypothesis, Property Rights, and Innovation Offsets: The Case of Southwest Michigan Pork Producers*. Selected paper for the American Agricultural Economics Association (AAEA) Annual Meeting, Nashville, TN, August 1999.

SELECTED GRANTS AND AWARDS

Lorie Srivastava

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- *Innovation and Household Behaviour: The Effect of Choice Context and Endowment in Experimental Auctions* by **L. Srivastava**. Competitive Minor Research and Scholarship Grant awarded by Kwantlen University College Office of Research. February 2006. **\$2,000**.
- “*National Agricultural Economics Graduate Student Survey*” by Aslihan Spaulding and **Lorie Srivastava**. Competitive grant proposal awarded by the American Agricultural Economics Association Foundation Board. February 2002. **\$320**.
- “*Private Financing and Investment for Environmental Protection: Household and Firm Compliance with Environmental Performance Standards*” by Sandra S. Batie and **Lorie Srivastava**. Competitive grant proposal awarded by Great Lakes Protection Fund. MSU Grants and Contract Application No.: 73072. September 1998 through September 1999. Total grant: **\$52,774**.

ADDITIONAL INFORMATION

- Treasurer, Trafalgar Elementary School Parent Advisory Committee, 2014-present
- Member, HR Sub-Committee, Trafalgar Out of School Care Society, 2013-present
- Chair, Trafalgar Out of School Care Society Board of Directors, 2011-2013
- Treasurer, Trafalgar Out of School Care Society, 2010-2011
- Member, Transportation Association of Canada, Research Methodology, 2010-2012
- Member, Transportation Association of Canada, Finance Committee, 2011-2012
- Volunteer, Transportation Association of Canada, Graduate Paper Evaluator, 2012
- Member, Canadian Agricultural Economic Society, Website and Online Publishing Committee, Oct. 2003-Dec. 2005
- Member, American Agricultural Economics Association, Membership Committee, September 2005-September 2006
- Member, Committee on Women in Agricultural Economics, Web Master, 1997-2001
- Member, Committee on Women in Agricultural Economics, Graduate Student Representative, 1998-2001
- Served as a reserve member on the City of Ottawa Environmental Advisory Committee, Summer 2003
- Have formally studied French, Mandarin, and Hindi

REFERENCES

- Available upon request