Walter, Penny

Subject: FW: Email - Communication - James Nolan - Radio Controlled Aircraft including Drones Bylaw - File

CK 370-1

Attachments: cv2021-02jn.doc

From: Web NoReply <web-noreply@Saskatoon.ca>

Sent: Saturday, March 6, 2021 6:25 PM To: City Council < City. Council@Saskatoon.ca>

Subject: Email - Communication - James Nolan - Radio Controlled Aircraft including Drones Bylaw - File CK 370-1

Submitted on Saturday, March 6, 2021 - 18:25

Submitted values are:

Date Saturday, March 06, 2021 To His Worship the Mayor and Members of City Council First Name James Last Name Nolan **Phone Number** Email Address 9th St. East City Saskatoon Province

Name of the organization or agency you are representing (if applicable) N/A Subject Radio controlled aircraft (including drones) bylaw

Meeting (if known) Planning and Development

Comments

Postal Code

After noting that this committee will be discussing drones this week (https://saskatoon.ctvnews.ca/suddenly-i-m-notallowed-to-fly-saskatoon-drone-pilot-wants-city-s-rules-relaxed-1.5335284), I decided to finally write Council. My name is James Nolan I am a full professor at the University of Saskatchewan. My professional CV is attached. I conduct academic research in transportation policy, and I happen to be a radio control aircraft hobbyist as well. I also participate in a U.S. National Academy of Science committee on drone use, so I know something about this issue. The current city bylaw banning recreational flying is beyond onerous and if one considers recent policy adjustments to the hobby worldwide (EU and US in particular), you will see that Saskatoon on its own has some of the world's strictest recreational flying laws, laws which I would like to remind council would not likely stand up in a Canadian court from a jurisdictional perspective (https://globalnews.ca/news/6481468/saskatoon-drone-bylaw-criticized/). While I don't want to be the person to make that challenge, before that situation happens, the issue is easy to correct while maintaining clean airspace in and around the city. To this end, I would urge Council to simply change the current bylaw to follow what are current applicable Canadian/US regulations. Particularly for recreational (or basic) flyers like myself, these regulations mean that if I limit my model to under 250 grams in weight, then I don't need a formal license to fly as I am not putting anyone in danger with that size of aircraft. Furthermore, the regulations also state that a basic flyer must fly at least 30 meters away from people and stay under 400 feet (122 meters) altitude, while not operating within 5.6 km of an airport. I can assure you these are not onerous conditions for a basic or "weekend" flyer, and were pretty standard for me when I could fly in the city. While rules and considerations need to change for larger flying models, the committee knows that current Canadian regulations are well spelled out, for a good example see https://uavcoach.com/drone-laws-in-canada/. No respectable recreational flyer will disagree that heavier models (we can debate the cutoff weight between light/heavy, but 250 grams and under makes for a very light model indeed)

dictate a higher level of flight training/awareness and unlike basic flyers, this kind of flying requires a license/liability insurance to operate. But the city has (accidentally or not) eliminated basic recreational model airplane flight, this in a world where we now believe STEM training for children is so important. If Saskatoon simply kept pace with Canadian model flight regulations rather than trying to placate local politicians/interests, the latter solution would give those of us a chance again to take our kids out to teach them the principles of flight through actually flying a small model airplane. I am likely too late to address council about the issue, but I am always available for discussion at my university e-mail address (see above). Thank you for your time and consideration on this issue.

Attachments

Professional CV - James Francis Nolan

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ACADEMIC EXPERIENCE

2012-present	Professor, Dept. of Agricultural and Resource Economics, University of
	Saskatchewan, Saskatoon, Canada.
2013-2014	Sabbatical Leave, Experimental Decision Laboratory, University of Saskatchewan
	College of Arts and Science.
2004-2012	Associate Professor, Dept. of Bioresource Policy, Business and Economics,
	University of Saskatchewan, Saskatoon, Canada.
Jan-June 2007	Sabbatical Leave, University of California (Irvine), Institute for Transportation
	Studies.
1998-2004	Assistant professor, Dept. of Agricultural Economics, University of Saskatchewan,
	Saskatoon, Canada
1996-1998	Post-Doctoral Research Fellow, Transportation Group (Civil
	Engineering/Economics), University of New Brunswick, Canada.

EDUCATION

1996 Ph.D (Economics), University of California (Irvine)

Dissertation Title: Efficiency in the Bus Transit Industry: Measurement and Identification of Performance Determinants

1990 M.A. (Economics), York University, Toronto, Canada

1988 B.A. (Economics and Statistics) Concordia University, Montreal, Canada

RESEARCH INTERESTS

Agricultural economics Transportation economics Computational economics Regulatory economics Experimental economics

REFEREED PUBLICATIONS (refereed book chapters as indicated)

- 1. J. Wood and J. Nolan (2020) "Plant location decisions in the ethanol industry: A dynamic and spatial analysis". *Computational Economics*, https://doi.org/10.1007/s10614-020-09984-2
- 2. F. Ge, S. Goetz, M. Gomez, R. Gray and J. Nolan (2018) "Modeling testing mechanisms for mitigating genetically modified wheat contamination risks", *International Journal of Production Research*, 57 (2), 582-598.
- 3. J. Nolan, E. Micheels and L. Pollard (2018) "Designing Future Merger Policy in North American Rail: Lessons from the Past?", Ch. 6 in *Transportation Policy and Economic Regulation Essays in Honor of Theodore Keeler*, J. Peoples and J. Bitzan Eds., Elsevier (book chapter)

- 4. D. Brewin, J. Nolan, R. Gray and T. Schmitz (2017) "Bringing in the Sheaves: Changes in Canada's Grain Supply Chain through the Post Canadian Wheat Board Era", *Journal of the Transportation Research Forum*, 57(3), 75-90.
- 5. D. Brewin, T. Schmitz, J. Nolan and R. Gray (2017) "Grain Transportation Policy Reform in Western Canada", *Canadian Journal of Agricultural Economics*, 65, 643-665.
- 6. L. Pizzey and J. Nolan (2017) "Pass the Salt: Markets for Grain Shipping on the Great Lakes", *Journal of the Transportation Research Forum*, 56(2), 61-72.
- 7. F. Ge, J. Nolan, R. Gray, S. Goetz and Y. Han (2016) "Supply Chain Complexity and Risk Mitigation: A hybrid optimization-simulation model", *International Journal of Production Economics*, 179, 228-238.
- 8. R. Lawrence, J. Nolan and R. Schoney (2016) "Simulating contestability in freight transportation the Canadian grain handling and transportation system". *Journal of Transport Economics and Policy*, 50, 1-25.
- 9. E. Micheels and J. Nolan (2016) "Examining the effects of absorptive capacity and social capital on the adoption of agricultural innovations: A Canadian Prairie case study", *Agricultural Systems*, 145, 127-138.
- 10. S. Gleim and J. Nolan (2015), "Canada's Grain Handling and Transportation System: A GIS-based Evaluation of Potential Policy Changes", *Journal of the Transportation Research Forum*, 54, 99-111.
- 11. M. Cakir and J. Nolan (2015), "Revisiting Concentration in Food and Agricultural Supply Chains: The Welfare Implications of Market Power in a Complementary Input Sector", *Journal of Agricultural and Resource Economics*, 40, 203-219.
- 12. F. Ge, R. Gray and J. Nolan (2015) "Agricultural supply chain optimization and complexity: A comparison of analytic vs. simulated solutions and policies", *International Journal of Production Economics*, 159, 208-220.
- 13. F. Ge, R. Gray and J. Nolan (2015) "Identifying strategies to mitigate handling risks in the Canadian grain supply chain", *Canadian Journal of Agricultural Economics*, 63, 101-128.
- 14. J. Nolan, P. Ritchie and J. Rowcroft (2014) "International Mergers and Acquisitions in the Airline Industry", in James Peoples (ed.) *The Economics of International Airline Transport (Advances in Airline Economics, Volume 4)*, Emerald Group Publishing Limited, 127-150 (book chapter)
- 15. Z. Ghaith and J. Nolan (2014) "The Ocean Shipping Business: Operational, financial and regulatory perspectives", *The Business of Transportation* (D. Prokop, Ed.), ABC-CLIO Press, Santa Barbara, CA, 100-121 (book chapter)

- 16. A. Laing and J. Nolan (2013) "Analyzing Spatial Market Structure in Transportation: For-Hire Grain Trucking Along the Alberta-Saskatchewan Border in Canada", *Journal of the Transportation Research Forum*, 52, 91-121.
- 17. T. Freeman, R. Schoney and J. Nolan (2013) "Man vs. Manure: Examining the effects of residential demand on dairy farming in rural America", *Agricultural Systems*, 115, 129-136.
- 18. M. Haghiri, S. Law, J. Nolan and A. Simchi (2013), "Comparing Nonparametric to Parametric Interaction Terms in Generalized Additive Models: Production Technology in the Canadian Cable Television Industry", *International Journal of Data Analysis Techniques and Strategies*, 5, 229-251.
- 19. J. Nolan and W. Kerr (2012) "The Estey Review's Contribution to Transportation Policy", *Journal of International Law and Trade Policy*, 13 (2), 243-262.
- 20. M. Haghiri, S. Law and J. Nolan (2012) "Non-parametric Estimates of Technology Using Generalized Additive Models: The Case of Canadian Cable Television", *International Journal of Economics and Finance*, 4, 36-47.
- 21. A. Arsenault, J. Nolan, R. Schoney and D. Gilchrist (2012) "Outstanding in the Field: Evaluating Auction Markets for Farmland Using Multi-agent simulation", *Journal of Artificial Societies and Social Simulation*, 15(1), (http://jasss.soc.surrey.ac.uk/15/1/11.html).
- 22. M. Haghiri, S. Law and J. Nolan (2011) "Evaluating the relative efficiency of cancer treatments in Nova Scotia using the patient as the unit of analysis", *Canadian Journal of Regional Science*, 33, 163-176.
- 23. J. Nolan, P. Ritchie and J. Rowcroft (2010) "Productivity and de-regulation in the Canadian for-hire trucking industry, 1985-1996", *Journal of the Transportation Research Forum*, 49, 39-52.
- 24. T. Freeman, J. Nolan and R. Schoney (2009) "An agent-based simulation of structural change in Canadian Prairie agriculture, 1960-2000", Canadian Journal of Agricultural Economics, 57, 537-554.
- 25. J. Nolan, and J. Skotheim (2008) "Spatial competition and regulatory change in the grain handling and transportation system in western Canada", *Annals of Regional Science*, 42, 929-944.
- 26. D. Barber, J. Hobbs and J. Nolan (2008) "Assessing producer stated preferences for identity preservation in the Canadian grain handling and transportation system", *Canadian Journal of Agricultural Economics*, 56, 243-256.

- 27. E. Larson, and J. Nolan (2007) "Assessing the effects of road pricing on an industry: the grain handling and transportation system in Saskatchewan", *Journal of the Transportation Research Forum*, 46, 69-86.
- 28. C. Viju, J. Nolan and W. Kerr (2006) "Common markets: Measuring price integration in European agricultural markets", *Review of European and Russian Affairs* (on-line), 2, 33-56.
- 29. J. Nolan, P. Ritchie and J. Rowcroft (2005) "Small market air service and regional policy", *Journal of Transport Economics and Policy*, 39, 363-378.
- 30. K. Belcher, J. Nolan and P. Phillips (2005) "Genetically modified crops and agricultural landscapes: Spatial patterns of contamination", *Ecological Economics*, 53, 387-401.
- 31. A. Moore, J. Nolan and G. Segal (2005) "Putting out the trash: Measuring municipal service performance in U. S. cities", *Urban Affairs Review*, 41, 237-259.
- 32. L. Carlson, and J. Nolan (2005) "Pricing access to rail infrastructure in Canada", with L. Carlson (CWB), *Canadian Journal of Administrative Sciences*, 22, 45-57.
- 33. J. Partridge and J. Nolan (2005) "Commuting on the Canadian prairies and the rural/urban divide", Canadian Journal of Administrative Sciences, 22, 58-72.
- 34. M. Haghiri, J. Nolan and K. Tran (2004) "Assessing the impact of economic liberalization across countries: A comparison of dairy industry efficiency in Canada and the United States", *Applied Economics*, 36, 1233-1243.
- 35. J. Nolan, (2004) "Damn lies revisited: Revenue per ton-mile as a rate surrogate", *Journal of Transportation Law, Logistics and Policy*, 71, 313-319.
- 36. S. Law, A. MacKay and J. Nolan (2004) "Rail infrastructure management policy: Applying a real options methodology", *Public Works, Management and Policy*, 9, 145-153.
- 37. W. Nganje, W. Wilson and J. Nolan (2004) "Agro-terrorism and the grain handling systems in Canada and the United States", *Current Agriculture, Food and Resource Issues (CAFRI: www.cafri.org)*, 5, 148-159.
- 38. J. Nolan, P. Ritchie and J. Rowcroft (2004) "September 11 and the world airline financial crisis", *Transport Reviews*, 24, 239-255.
- 39. S. Law, and J. Nolan (2003) "Unintended and persistent consequences of regulation: The case of cable television provision in Canada ", *Journal of Network Industries*, 4, 391-410.

- 40. M. Annand and J. Nolan (2003) "Rail regulation and competition in Canada: Assessing future policy direction through an analysis of regulatory decisions", *Journal of Transportation Law, Logistics and Policy*, 71, 65-84.
- 41. S. Law, A. MacKay and J. Nolan (2003) "Using financial options to hedge transportation capacity in a deregulated rail industry", Ch. 8 in *Innovations in Financial and Economic Networks*, A. Nagurney, Ed., Edward Elgar Press (book chapter)
- 42. S. Law and J. Nolan (2002) "Measuring the impact of regulation: A study of Canadian basic cable television", *Review of Industrial Organization*, 21, 231-249.
- 43. J. Nolan, P. Ritchie and J. Rowcroft (2002) "Identifying and measuring public policy goals: ISTEA and the U.S. bus transit industry", *Journal of Economic Behavior and Organization*, 48, 291-304.
- 44. J. Nolan, and W. Drew (2002) "The Estey/Kroeger review and the role of regulation in the Canadian grain handling and transportation industry", *Canadian Journal of Agricultural Economics*, 50, 85-98.
- 45. M. Fulton and J. Nolan (2001) "Competitive access: The next step for the Canadian rail industry?", *Journal of the Transportation Research Forum*, 40 (2), 81-95.
- 46. J. Nolan, P. Ritchie and J. Rowcroft (2001) "Measuring efficiency in the public sector using non-parametric frontier estimators: A study of transit agencies in the United States", *Applied Economics*, 33, 913-922.
- 47. J. Nolan, P. Ritchie and J. Rowcroft (2001) "Open skies and open gates" *Transportation*, 28, 119-135.
- 48. J. Nolan (2001) "Productivity and efficiency changes among mid-sized transit agencies through the ISTEA-NEXTEA era ", *Journal of the Transportation Research Forum*, 40 (1), 93-103.
- 49. J. Nolan (1996) "Determinants of productive efficiency in urban transit", *Transportation Research E: The Logistics and Transportation Review*, 32, 319-342.
- 50. L. Cohen, G. Fielding, G. Smith and J. Nolan (1994) "Appraising transportation research", *Transportation Research Circular No.* 426 (pp 21-29); Transportation Research Board, Washington, D.C.

WORKING PAPERS AND PAPERS UNDER REVIEW

1. C. Su and J. Nolan and R. Schoney "Buy, sell or rent the farm: Succession planning and the future of farming on the Great Plains". Under second review, *Journal of Economic Interaction and Coordination*.

- 2. J. Nolan and B. Mantin "Who pays the piper? Assessing the incidence for pass-through of environmental taxes in a maritime shipping lab experiment".
- 3. J. Murguia, J. Nolan and D. Hennessy "Evaluating Intermodal Competition for Grain Transportation between Rail and Barge".
- 4. S. Jiang, W. Wilson and J. Nolan "Exit decisions in the Canadian grain elevator industry, under revision, *Journal of Industry, Competition and Trade*.
- 5. L. Anderson, R. Schoney and J. Nolan "Simulating the consequences of second-generation bioenergy crops on a grain/livestock economy: A study of the Canadian Prairies". Under second review, *Journal of Simulation*.
- 6. B. Brown, R. Schoney and J. Nolan "The Future of Food vs. Fuel: A Perspective for Western Canadian Agriculture". Under review, *Energy Policy*.
- 7. C. Su, and J. Nolan. "Measuring rail market power in wheat transportation".
- 8. P. Slade, J. Nolan and E. Micheels "On quantity and quality in agricultural economics publishing".
- 9. J. Nolan and H. Tran, "Assessing the relationship between transportation competition and the structure of transportation networks: the case of coal movements in the U.S. "
- 10. P. Slade and J. Nolan. "Long-run incentives and market power: Evidence from an experimental agricultural market".
- 11. A. Arsenault and J. Nolan, "Bargaining on the rails: Evaluating the effectiveness of final offer arbitration as a regulatory tool in the Canadian rail freight sector".
- 12. J. Nolan and S. Gleim. "Contracting and accountability in the Canadian grain handling and transportation system".
- 13. J. Nolan, "Assessing bias and capture in regulatory decision making an empirical study of the Canadian Transportation Agency".
- 14. J. Nolan, H. Andic and D. Brewin, "Assessing Transportation and Regulatory Policy in the Laboratory".

OTHER PUBLISHED RESEARCH CONTRIBUTIONS

- 1. J. Nolan, C. Su, L. Pizzey and S. Peterson (2020) "Parallel or Converging? A comparative analysis of the grain and rail transportation systems in Canada and the United States", available at https://ageconsearch.umn.edu/record/307243
- 2. J. Nolan and P. Swan (2020) "Arbitration and U. S. Rail Regulation", Transportation Research Board (TRB) Committee on Freight Rail Transportation (AR040) Newsletter, Issue 5, 5-8.

- 3. J. Nolan and C. Su (2019) "Measuring rail market power in wheat transportation", available at https://ageconsearch.umn.edu/record/292343
- 4. J. Nolan and S. Peterson (2015) "Grain Handling and Transportation Policy in Canada: Implications for the United States", Choices: The magazine of food farm and resource issues, 30 (3).
- 5. P. Stolniuk, R. Schoney and J. Nolan (2013) "An Agent-based Simulation Model of Western Canadian Prairie Agricultural Structural Change, Scientific Annals of Agricultural Economics and Rural Development (Roczniki Naukowe Ekomomii Rolnictwa i Rozwoju Obszarów Wiejskich).
- 6. J. Nolan, E. Smith, G.C. van Kooten and J. Wilson (2010) "What constitutes prior publication? An editorial opinion", *Canadian Journal of Agricultural Economics*, 58, 1-4.
- 7. J. Nolan, D. Parker, G.C. van Kooten and T. Berger (2009) An Overview of Computational Modeling in Agricultural and Resource Economics", *Canadian Journal of Agricultural Economics*, 57, 417-429.
- 8. J. Nolan (2007) "Transportation". Ch. 19 in *Saskatchewan: Geographic Perspectives*, Canadian Plains Research Centre Press, Regina, SK.
- 9. J. Nolan. (2003) "History of goods transportation" in Transportation Engineering and Planning (edited by T. J. Kim), chapter 6.40.1.4 in the *Encyclopedia of Life Support Systems (EOLSS)*, EOLSS publishers, Oxford, UK [http://www.eolss.net]
- G. Segal, A. Moore, and J. Nolan (2002) "California competitive cities: A report card on efficiency in service delivery in California's 10 largest cities". Policy Study #291, Reason Public Policy Institute, Los Angeles, available on-line at http://www.rppi.org
- 11. A. Moore, J. Nolan and G. Segal (2001) "Competitive cities: A report card on efficiency in service delivery in America's largest cities". Policy Study #282, Reason Public Policy Institute, Los Angeles, available on-line at http://www.rppi.org

CONFERENCE PROCEEDINGS

- 1. D. Brewin, J. Nolan, T. Schmitz and R. Gray (2017) "Firm Behavior in Canada's Grain Handling and Transportation Sector After Removal of the CWB Single Desk" *Transportation Research Board*, 96th Annual Meeting (reviewed).
- H. Ge, C. Echevarria, J. Nolan and R. Gray (2011) "Impact of U.S. cotton subsidies: A
 computable general equilibrium model", proceedings of the International Conference
 on Social Sciences and Society (ICSSS 2011), Shanghai, China, 286-292.

- 3. A. Laing, and J. Nolan (2009), "Price dynamics and market structure in transportation: For-hire grain trucking along the Alberta-Saskatchewan border". *Transportation Research Forum* 50th Annual Meeting Proceedings.
- 4. J. Nolan, and P. Phillips, P. (2007) "Strategic options in Canadian transport policy: The interface between trade pressures and domestic policy". Presentation to the Western Canadian Corridor Workshop, Regina, SK, available on-line at http://www.gateway-corridor.com/reginaroundtable/
- 5. J. Nolan, P. Ritchie and J. Rowcroft (2007) "Efficiency and returns to scale in world airlines, 1998-2005", World Conference on Transport Research, Berkeley, CA.
- J. Nolan (2003) "Cracks, tracks and stacks: Trucking services and rural infrastructure", proceedings of the conference The Agricultural Industry after Western Grain Transportation Reform: The Good, the Bad and the Unexpected, Dept. of Agribusiness and Agricultural Economics, University of Manitoba, Winnipeg, Manitoba (available on CD-ROM).
- 7. W. Kerr, and J. Nolan (2003) "The Estey review's contribution to transportation policy" (2003), Conference on Williard Z. Estey's contribution to Canadian Law and Public Policy, Estey Center for Trade Policy, Saskatoon.
- 8. J. Nolan, and J. Skotheim (2003) "A spatial analysis of changes in transportation competition policy: Grain handling and transportation in Western Canada", with J. Skotheim. *Transportation Research Board*, 82nd Annual meeting (refereed).
- 9. J. Nolan, and D. Spearin (2002) "Improving container availability for pulse growers in Saskatchewan: A pilot study", *Proceedings of the Canadian Transportation Research Forum (CTRF)*, 545-556.
- 10. S. Law, A. MacKay and J. Nolan (2002) "The application of option modeling to rail abandonment policy decisions in Canada", *Proceedings of the Canadian Transportation Research Forum (CTRF)*, 94-104.
- 11. S. Law, A. MacKay and J. Nolan (2001) "Using financial options to hedge transportation capacity in a deregulated rail industry", *Transportation Research Forum Annual Proceedings (CD-ROM)*.
- 12. P. Christensen, J. Nolan and G. Sparks (2001) "Modeling the rationalization of rural road networks: The case of Saskatchewan", *Proceedings of the Canadian Transportation Research Forum (CTRF)*, 787-811.
- 13. J. Nolan and W. Drew (2001) "Clearing the track: Appraising railway perspectives on the issues of regulation and competition in the North American rail industry, Proceedings of the Canadian Transportation Research Forum (CTRF), 732-747.

- 14. J. Nolan, P. Ritchie and J. Rowcroft (2001) "Simulating airline alliances in an international context", Proceedings of the Canadian Transportation Research Forum (CTRF), 378-379.
- 15. M. Fulton and J. Nolan (2000) "Open or closed? Access and the regulatory future of the Canadian rail industry", *Proceedings of the Transportation Research Forum* 42nd Annual Conference.
- 16. J. Nolan, P. Ritchie and J. Rowcroft (1999) "Recognition of public objectives in the US Bus Industry as a response to ISTEA", *Proceedings of the Canadian Transportation Research Forum (CTRF)*, 751-763.
- 17. J. Nolan, P. Ritchie and J. Rowcroft (1998) "Open skies and open gates", *Proceedings of the Canadian Transportation Research Forum (CTRF)*, 119-128.
- 18. S. Law, and J. Nolan (1997) "From cable to grade: The 1996 results of parametric and frontier non-parametric tests for efficiency in the provision of Canadian basic cable television services", *Atlantic Canada Economics Association (ACEA) Papers*.

COURSES TAUGHT

Graduate level

- -Industrial Organization for Agriculture
- -Production Economics
- -Computational Economics and Simulation
- -Transportation Economics and Policy
- -Applied Econometrics
- -Topics in Bioresource Policy and Economics (co-taught)
- -Mathematical Economics (graduate review course)

Undergraduate level

- Operations Management for Agriculture (and online)
- Economics of Entrepreneurship
- Introduction to Agricultural Economics
- Microeconomics with Calculus
- Econometrics
- Industrial Organization for Agriculture
- Regulation, Competition and Anti-trust
- Introduction to Microeconomics and Macroeconomics
- Engineering Economics
- Oral and Written Communication
- Urban Economics

BOOK REVIEWS

Review of "Spatial Microsimulation for Rural Policy Analysis" (2014), *Journal of Regional Science*, 54(2), 343-344.

Review of "Recent Developments in Transport Economics" (1997); "Research in Transportation Economics" (1996), *Transportation Research Part A*, 33 (6) (1999), 484-487.

NEWS REPORTS AND COMMENTARY

- *i)* The Daily Gleaner (May, 1997), Fredericton, N.B. Comments on taxi regulation in the city of Fredericton, New Brunswick.
- *ii)* The Star Phoenix (January, 1999), Saskatoon, SK. Quoted extensively in a lead article in the Business section concerning the Estey report on grain handling and transportation in Western Canada.
- *iii)* CBC Radio (February, 1999) (National, with R. Gray). Commentary for a news segment on branch line abandonment in the Canadian rail industry.
- *iv)* CTV News (May, 1999, Farm Report), May, 1999. Commentary on the implementation of the Estey review by the committee headed by A. Kroeger.
- *v) National Post (September, 1999)* Editorial commentary on airline competition "*A Gate Away from Success*", co-authored with P. Ritchie (UNB) and J. Rowcroft (UNB).
- vi) Invited column for Synergy magazine (Fall, 1999) entitled "Re-Organizing Public Transit in Canada".
- vii) National Post (October, 1999) Editorial commentary on transportation regulation in Canada "Ottawa's Roadblock to Transport Competition", with M. Fulton (U. Sask), P. Ritchie (UNB) and J. Rowcroft (UNB)).
- viii) CBC Radio (Saskatoon), April, 2000. Commentary on transportation issues in Saskatchewan
- *ix*) *Regina Leader-Post (July, 2000).* Extensively quoted in a business section article about rail competition and grain prices.
- *ix*) *National Post* (*December*, 2000). Quoted with regards to sale of CN branch lines to labour union interests.
- *x*) Los Angeles Times (February, 2001)." Valley Looks to Others for Examples". Quoted extensively in an article describing the results of a conference on the optimal size of local government.
- xi) National Post (June, 2001). Editorial commentary on rail deregulation in Canada "CN shunts rail market realities".

- xii) Western Producer (April, 2002). Quoted in a news story on hopper car sales in the Western GHTS.
- *xiii*) *National Post* (*June*, 2002). Quoted in the Financial Post section about rail competition in Canada.
- *xiv*) *National Post (Sept, 2002*). Quoted in the Financial Post about a Canadian Transportation Agency decision on access to rail track in Western Canada.
- xv) CBC Newsworld (May, 2004). Interviewed on national news broadcast about current problems in Canada's airline industry.
- xvi) Kansas City Star (June, 2006). Quoted with respect to a lead story on evaluating and ranking municipal service efficiency in the Kansas City area.
- *xvii*) *C-FAX Radio* (*Victoria, B.C.*) (*November, 2006*). Interviewed live for the talk show "Public Eye" on the topic of possible changes to the Canadian Wheat Board.
- *xviii*) *Saskatoon Star Phoenix* (*August*, 2007). Quoted in reference to Canadian Transportation Agency decision on grain shipper level of service complaint.
- *xix*) *Market Prospects (CTV-Saskatoon, March, 2008)*. Interviewed about recent developments in the grain handling and transportation industry in Western Canada.
- xv) "Model Building" (2011, with R. Schoney, R. Lawrence and G. Cheater). Article in Ag. Canada news, http://www.agcanada.com/canolaguidemarch2011/ (pages 28-31).
- xvi) *MacLean's magazine* (2011). Interviewed/quoted about recent financial market developments in the Canadian rail sector.
- xvii) CBC-TV National/Regional News (July, 2013) Interviewed about rail industry safety as related to the Lac Megantic disaster.
- xviii) CKOM AM 650 Saskatoon (Oct, 2013) Interviewed about rail industry safety in Canada.
- xix) CBC-TV National/Regional News (Dec, 2013) Interviewed about data on safety and derailments.
- xx) Global TV National News (Jan, 2014) Interviewed about rail safety and oil transportation.
- xxi) Saskatoon Star Phoenix newspaper (Oct, 2014). Interviewed about rail safety in the context of a local train derailment.
- *xxii*) *Market Prospects (CTV-Saskatoon, Dec. 2014)*. Interviewed about latest issues in the grain handling and transportation industry in Western Canada.

xxiii) Western Producer newspaper (Aug., 2015). Interviewed about the nature and timing of Canadian Transportation Agency regulatory decisions.

xxiv) *Global TV News, Saskatoon* (Feb, 2016). Interviewed on morning news about the viability and future of the port of Churchill, MB.

xxv) Radio Canada (French, July, 2017). Interviewed about grain transportation.

xxvi) Business News Network BNN (Sept. 2017) Interviewed about transportation Bill C-49.

xxvii) Freight Waves (on line) https://www.freightwaves.com/news/railroad/stb-future-mission-change (Jan. 2019). Quoted about rail regulation as part of a Transportation Research Board session that I helped to organize.

xxviii) Western Producer newspaper (Sept. 2019). Interviewed about recent mergers and acquisitions in the grain elevation sector.

xxix) *United States Department of Agriculture* (Feb, 2021). Research report (Nolan et al., 2020) on Canada/US rail comparison highlighted on their website: https://www.ams.usda.gov/services/transportation-analysis.

PROFESSIONAL ACTIVITIES/AFFILIATIONS

1999-2005, member, Transportation and Public Utilities Group (TPUG), American Economic Association.

2000 – 2007, Councilor (former executive vice-president), Canadian Transportation Research Forum (www.ctrf.ca).

2002-2010. Research associate, Estey Center for Law and Economics in International Trade (Saskatoon).

February 2002. Expert witness; Naber Seeds vs. Canadian National, Canadian Transportation Agency regulatory hearing, Saskatoon.

2003-2005. Member, Association for Transportation Law, Logistics and Policy.

September 2004. Expert testimony in grain company merger case, Toronto.

2006-present. Editor, Canadian Journal of Transportation (on-line).

June 2006. Invited presentation for a Transport Canada Workshop on Sustainable Transportation, Toronto.

August 2007. Executive lectures on rail industry organization and policy for India Rail. Indian Railways: Study Tracks Program, Rotman School of Business, University of Toronto.

January 2008. Formal submission completed for the Canadian Transportation Agency (Decision No. LET-R-218-2007) on Canadian rail interswitching policy.

May, 2008. Research grant reviewer (regional and transportation economics), Israel Science Foundation.

2008-2011. Co-editor, Canadian Journal of Agricultural Economics.

September, 2008. Lectures on rail industry organization and policy for India Rail executives. Indian Railways: Study Tracks Program, Rotman School of Business, University of Toronto.

2011-2013. Graduate Chair, Dept. of Bioresource Policy, Business and Economics, University of Saskatchewan

2012-present. Committee member, Freight Transportation Committee, Transportation Research Board, Washington, D.C.

December, 2012. Expert testimony; grain industry case, Saskatoon.

2013-2017. Academic affairs VP, Transportation Research Forum.

2014-present. Committee member, Agricultural Transportation Committee, Transportation Research Board, Washington, D.C.

April, 2014. Invitation to one-day workshop - IHS Energy Oil Sands Dialogue - North American Crude by Rail Workshop, Ottawa, ON.

2015-present. Member, Inland Waterway Transportation Committee, Transportation Research Board, Washington, D.C.

2015-2017. Co-editor, Journal of the Transportation Research Forum.

2017-2018. Executive Vice-President, Transportation Research Forum.

2018-present. Editorial Board, Research in Transportation Economics/Editor, Journal of the Transportation Research Forum.

2018-2019. President, Transportation Research Forum.

May, 2019. Research grant reviewer, European Research Council, Social Sciences and Humanities

May, 2019. Invited to edit professional volume *Advances in Airline Economics*, Emerald Publishing, UK.

July, 2019. External reviewer, MSc. in Agricultural Entrepreneurship, Mona Campus, University of the West Indies, Jamaica.

June, 2020. Host of virtual Western Economic Association International/Transportation and Public Utilities Group session "Transportation Infrastructure and Agents".

Jan, 2021. Organized and Presiding Officer for "Atypical Disruptions in Supply Chains" virtual session, part of Freight Day (Part 1), Transportation Research Board 2021 conference (online).

Feb, 2021. External reviewer, SSHRC grant application.

HONORS

Professor of the Year Award, Agricultural Students Association, U. of Saskatchewan (2017-2018).

Canadian Agricultural Economics Society - Honorable mention, Canadian Journal of Agricultural Economics Outstanding Article Award (V.63, 2015) "Identifying Strategies to Mitigate Handling Risks in the Canadian Grain Supply Chain" (with H. Ge and R. Gray) (2016).

Provost College Teaching Award, University of Saskatchewan, College of Agriculture and Bioresources (2016).

"Best Agricultural and Rural Transportation Paper" award, Transportation Research Forum (2009), Portland, OR.

Professor of the Year Award, Agricultural Students Association, U. of Saskatchewan (2008-2009).

Research highlighted in the Transportation Research Forum Publication (2007) "Compendium of Agricultural and Rural Transportation Publications, 2004-2006". I am the only Canadian-based researcher listed in this guide.

Canadian Ditchley Foundation; invited to international conference entitled "Investing in Society's Future: What Priority for Infrastructure?", Ditchley Park, Oxfordshire, UK; March 2007.

Canadian Agricultural Economics Society - honorable mention for Tyler Freeman (*Best Agricultural Economics Master's thesis in Canada*, 2004-2005) awarded to his thesis "From the Ground Up - An Agent-Based Model of Regional Structural Change" - co-supervisor (with Richard Schoney), June, 2006.

Finalist, *Professor of the Year*, College of Agriculture, University of Saskatchewan - 2005, 2007.

Canadian Studies Enrichment Fellowship, Center for Canadian Studies, Mt. Allison University, March, 2003.

Albert and Ena Stevens Postdoctoral Fellowship in Transportation, University of New Brunswick, Canada, 1996-1998

2nd place, *Springer-Verlag Award*, *Best Conference Paper*, Western Regional Science Association Conference, 1996.

RESEARCH GRANTS RECEIVED

- 1. "Drivers of stable environmental governance in maritime shipping: A market level differential game of environmental governance", MITACS Scholarship (with F. Lassoued) (\$6,000), 2020.
- 2. Co-investigator (through UBC and U. Copenhagen), SSHRC partnership grant 895-2017-1003 "Green shipping: governance and innovation for a sustainable maritime supply chain" (2017-2023; I have received \$35,000 to 2020 for three projects)
- 3. "Evaluating regulated pricing models in the context of Canadian freight rail", Canadian Transportation Agency (\$35,000), 2019.
- 4. "Assessing rail market structure in key U.S. grain transportation markets", United States Dept. of Agriculture (USDA, \$40,000), 2017.
- 5. "Tracking a time of change: A comparison of the United States and Canadian grain transportation systems", United States Dept. of Agriculture (USDA, \$80,000), 2016.
- 6. Saskatchewan Ministry of Highways and Saskatchewan Centre of Excellence for Transportation and Infrastructure (SCETI) Evaluating the economics of the maximum revenue entitlement (MRE), 160 km Inter-switching distances and other competitive rail Scenarios (with D. Brewin, U. Manitoba) (\$50,000), 2016.
- 7. President's Social Sciences and Humanities Research Council Insight Grant (P-SSHRC) Assessing market power under capacity and commitment (with P. Slade) (\$7,000), 2016.
- 8. "Response to the Canada Transportation Act Review Report and supplementary study on accountability in the grain handling and transportation system and other regulated industries", Agriculture and Agri-Food Canada (AAFC) (with S. Gleim and P. Slade), (\$21,066), 2016.
- 9. Alliance for Food and Bioproducts Innovation (AFBI) Transporting regional commodities to export markets what does the future hold for the Prairie grain handling system? A spatial analysis and forecast (\$53,653); 2015.
- 10. Farm Credit Canada (FCC) An Agent-Based Simulation Model of the Impact of Increased Non-Farmer Investor Participation in Farmland Markets on Western Canadian Prairie Farm Structure (with R. Schoney) (\$33,000); 2014.

- 11. Canada Foundation for Innovation (CFI) Infrastructure Project (with P. Phillips (Public Policy) and Valerie Thompson (Psychology)), Experimental Decision Laboratory (EDL) at the University of Saskatchewan: A facility for the study of decision-making in complex, uncertain situations (\$385,342); 2012.
- 12. Canadian Wheat Board (CWB). An analysis of deregulation in the Australian Wheat market and its possible implications for wheat marketing in Canada (\$25,000); 2011.
- 13. Alliance for Food and Bioproducts Innovation (AFBI), Incentives for innovation across alternative agricultural organizations assessing the consequences of protectionist policies in agriculture (\$48,380); 2011.
- 14. Farm and Biofuel Iniative (FOBI), Locational analysis of ethanol plants in Western Canada (\$52,000); 2009.
- 15. Farm Level Policy Network (FLP), Agriculture and Agri-Food Canada. The evolution of the Canadian prairie grain handling and transportation system (\$15,000); 2007.
- 16. "An agent-based model of the U.S. Dairy Farm Sector" with R. Schoney (U. Sask.) and T. Freeman (U. Sask.). United States Dept. of Agriculture, (US\$24,000); 2005.
- 17. Farm Level Policy Network (FLP), Agriculture and Agri-Food Canada, with R. Schoney (U. Sask.). The construction of agent-based models for farm level analysis (\$68,000); 2004.
- 18. "A Proposal For a Feasibility Assessment of Future Farm-level Modeling Requirements For The Income And Adaptation Directorate", with R. Schoney (U. Sask.), Project No. 01B04-2-C207, Agriculture and Agri-food Canada (\$30,000); 2004.
- 19. "Transportation, infrastructure and the economy of Saskatchewan", Saskatchewan Highways and Transportation (\$20,000); 2003
- 20. "The Structure of International Supply Chains in the New Agriculture", Social Sciences and Humanities Research Council (SSHRC) project #410-1801, with J. Hobbs, W. Kerr and P. Phillips (U. Sask.) (\$54,000); 2001.
- 21. "Evaluating the Effects of Bill C-34 for the Province of Saskatchewan", Saskatchewan Highways and Transportation (\$4500); 2001.

PROFESSIONAL PRESENTATIONS

- 2021 Transportation Research Board (online)
- 2020 Green Shipping Partnership conference (online)
- 2019 Transportation Research Forum, Washington, D.C.
- 2019 Transportation Research Board, Washington, D.C.
- 2018 Chemical Industry Association of Canada, Ottawa, ON.
- 2018 Canadian Transportation Agency, Ottawa, ON.
- 2018 Transportation Research Forum, Minneapolis, MN.

- 2018 Transportation Research Board, Washington, D.C.
- 2017 Georgetown CPBB Rail Conference, Washington, D.C.
- 2017 Transportation Research Forum, Chicago, Ill.
- 2017 Transportation Research Board, Washington, D.C.
- 2016 Georgetown CBPP Rail Conference, Washington, D.C.
- 2016 Transportation Research Forum, Toronto, ON.
- 2016 Transportation Research Board, Washington, D.C.
- 2015 Washington State University, Pullman, WA.
- 2015 Transportation Research Forum, Atlanta, GA.
- 2015 Transportation Research Board, Washington, D.C.
- 2014 Transportation Research Forum, San Jose, CA
- 2013 Canadian Renewable Fuels Summit, Montreal, QC.
- 2011 CWB Policy Conference, Saskatoon, SK.
- 2011 WAEA/CAES Meetings, Banff, AB.
- 2011 Transportation Research Forum, Long Beach, CA.
- 2011 Transportation Research Board, Washington, DC.
- 2010 Canadian Agricultural Economics Society Meetings, Denver, CO.
- 2010 Mount Allison University, Dept. of Economics, Sackville, NB.
- 2009 Sustainable Agricultural and Environmental Systems (SAGES) meeting, McGill U., Montreal.
- 2009 Transportation Research Forum, Portland, OR.
- 2009 Western Regional Science Association Conference, Napa, CA.
- 2009 Prairie Farm Rehabilitation Administration (PFRA), Regina, SK.
- 2008 Agriculture and Agri-Food Canada (FLP Network), Ottawa, ON.
- 2008 Canadian Transportation Research Forum, Fredericton.
- 2008 Western Regional Science Association Meetings, Kona, HI.
- 2007 Canadian Agricultural Economics Society Meetings, Portland, OR.
- 2007 University of Windsor, Centre for Cross Border Transportation, Windsor.
- 2007 Western Regional Science Association Meetings, Newport Beach, CA.
- 2006 Transport Canada Workshop on Sustainable Development, Toronto.
- 2006 Canadian Transportation Research Forum, Quebec City.
- 2006 Canadian Agricultural Economics Society Meetings, Montreal.
- 2005 Canadian Agricultural Economics Society Meetings, San Francisco, CA.
- 2005 Canadian Transportation Research Forum, Hamilton.
- 2004 Atlantic Canada Economics Association, Sackville.
- 2004 Canadian Transportation Research Forum, Calgary.
- 2004 Western Regional Science Association Meetings, Maui, HI.
- 2004 California State University, Long Beach, Dept. of Economics
- 2003 University of Leeds, Institute for Transport Studies, UK.
- 2003 Canadian Transportation Research Forum, Ottawa.
- 2003 Mount Allison University, Dept. of Economics/Dept. of Canadian Studies
- 2003 Transportation Research Board, Washington, D.C.
- 2002 Conference on W. Z. Estey Contribution to Canadian Law and Public Policy, Saskatoon.
- 2002 Imperial College, London, Center for Transport Studies, UK.
- 2002 Canadian Transportation Research Forum, St. John's.
- 2002 Western Regional Science Association Meetings, Monterey, CA.
- 2002 University of Rhode Island, School of Business

- 2002 Wilfrid Laurier University, Dept. of Economics
- 2002 American Economics Association Meetings (TPUG), Atlanta, GA.
- 2001 Atlantic Canada Economics Society Meetings, Fredericton.
- 2001 Northern Finance Association Meetings, Halifax.
- 2001 American/Canadian Agricultural Economics Society Meetings, Chicago, Ill.
- 2001 Public Policy Seminar Series, University of California, Los Angeles, CA.
- 2001 Canadian Economics Association Conference, Montreal.
- 2001 Canadian Transportation Research Forum, Vancouver.
- 2001 Western Regional Science Association Meetings, Palm Springs, CA.
- 2001 American Economics Association Meetings (TPUG), New Orleans, LA.
- 2000 Transportation Research Forum, Annapolis, MD.
- 2000 Ryerson Polytechnic University, Dept. of Economics, Toronto, Canada.
- 2000 Western Regional Science Association Conference, Kauai, HI.
- 1999 International Atlantic Economics Society, Montreal, Canada.
- 1999 Canadian Agricultural Economics Society Meetings, Fargo, N.D.
- 1999 Canadian Economics Association Conference, Toronto, Canada.
- 1999 Canadian Transportation Research Forum, Montreal, Canada.
- 1999 Union College, Dept. of Economics, Troy, N.Y.
- 1999 Western Regional Science Association Conference, Ojai, CA.
- 1998 University of Georgia, Productivity Workshop, Athens, GA.
- 1998 Canadian Economics Association Conference, Ottawa, Canada.
- 1998 Carleton University, School Of Public Administration, Ottawa, Canada.
- 1998 Transportation Research Board, Washington, D.C.
- 1997 Canadian Transportation Research Forum, Toronto, Canada
- 1996 University of Georgia, Productivity Workshop, Athens, GA.
- 1996 Western Regional Science Association Conference, Napa, Ca.
- 1996 University of Montreal, Dept. of Economics, Montreal, Canada.

JOURNAL REFEREE - Agriculture, Ecosystems and Environment, Journal of Agricultural Economics, American Journal of Agricultural Economics, Annals of Regional Science, Australian Journal of Agricultural and Resource Economics, Canadian Journal of Administrative Sciences, Canadian Journal of Agricultural Economics (8), Canadian Journal of Transportation (5), Canadian Public Policy, Computers and Electronics in Agriculture, Economic Inquiry, Econ Journal Watch, Ecological Modeling, Economics and Politics, Energy Economics, Energy Studies Review, Environmental Practice, Environment and Planning A, Intelligent Systems in Accounting, Finance and Management, Journal of Advanced Transportation (2), Journal of Agricultural and Resource Economics, Journal of Applied Economics and Policy, Journal of Artificial Societies and Social Simulation (3), Journal of Productivity Analysis, Journal of Regional Science (4), Journal of Transport Economics and Policy (5), Journal of the Transportation Research Forum (11), Journal of Transport Geography (2), Land Use Policy, Managerial and Decision Economics, Maritime Policy and Management, OR Spectrum, Reason Public Policy Institute Studies, Research in Transportation Economics, Review of Regional Studies, Prairie Perspectives, Public Administration: An International Quarterly, Soft Computing, Transportation Research A, Transportation Research B, Transportation Research D(5), Transportation Research E (3), Transportation Research Board (33), Transportation Research Record, Transit Economics (book chapter), Transportation Journal, Urban Affairs Review.