

CURRICULUM VITAE
THOMAS M. LOUGHIN
2025-June-25

Department of Statistics and Actuarial Science
Simon Fraser University
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PROFESSIONAL EXPERIENCE

Professor, Department of Statistics and Actuarial Science,
Simon Fraser University, Burnaby and Surrey, BC, Canada July 2006 – Present

- Associate Chair for Strategic Initiatives, Sept 1, 2019–Aug 30, 2020
- Department Chair, Sept 1, 2014–Aug 30, 2019
- Surrey Campus Coordinator for department 2006–2014
- Consultant/Coordinator of SFU Surrey Statistical Consulting Service, 2006–2013

Professor (July 2003 – June 2006),
Associate Professor (July 1998 – July 2003),
Assistant Professor (August, 1993 – July, 1998),
Department of Statistics, Kansas State University,
Manhattan, KS

The position at Kansas State included a 50% appointment for statistical consulting and collaborative research with individuals from K-State Research and Extension. Consulting work involved development, planning, analysis and interpretation of experiments and other scientific studies conducted by researchers in a variety of agriculturally-related disciplines. I worked with about 100 people per year with levels of involvement ranging from one-time questions to detailed collaborations.

Research Assistant, Agricultural Experiment Station Statistical Consulting Center,
Statistical Laboratory and Department of Statistics, Iowa State University, Ames, IA
August, 1989 – July, 1993

Biostatistician, Quintiles, Inc., Chapel Hill, NC
July, 1987 – July, 1989

EDUCATION

Ph.D. in Statistics, Iowa State University, Ames, IA; August, 1993
Dissertation Title: Bootstrap Applications in Proportional Hazards Models

M.S. in Statistics, University of North Carolina, Chapel Hill, NC; May, 1987

B.S. in Mathematics, Rensselaer Polytechnic Institute, Troy, NY; May, 1985

PROFESSIONAL ASSOCIATIONS

Member, **Fellow**, and **PStat®**, American Statistical Association (ASA)

Member, ASA Sections on Statistical Consulting, Statistics in Physical and Engineering Sciences,
Quality and Productivity, Statistics in Sports, and Statistical Learning and Data Mining

Member, **P.Stat.**, Statistical Society of Canada (SSC)

Member, SSC Business and Industrial Statistics, Biostatistics, and Data Science and Analytics Sections
Member, International Biometrics Society (IBS/WNAR)

HOBBIES: Curling, Comedy, Barbecue, Gardening

AWARDS

SFU Faculty of Science Excellence in Teaching Award, 2015/2016
Fellow of the American Statistical Association, 2008

PUBLICATIONS

Books:

Bilder, C. R. and Loughin, T. M. (2024). *Analysis of Categorical Data with R, Second Edition*. Chapman and Hall/CRC, Boca Raton, FL, USA. (<https://www.routledge.com/Analysis-of-Categorical-Data-with-R/Bilder-Loughin/p/book/9780367553234>)

Bilder, C. R. and Loughin, T. M. (2024). *Exercise Solutions for “Analysis of Categorical Data with R, Second Edition”*. Self-published.

Bilder, C. R. and Loughin, T. M. (2014). *Analysis of Categorical Data with R*. Chapman and Hall/CRC, Boca Raton, FL, USA, 533pp.

Bilder, C. R. and Loughin, T. M. (2014). *Exercise Solutions for “Analysis of Categorical Data with R”*. Christopher R. Bilder and Thomas M. Loughin via Chapman and Hall/CRC, Boca Raton, FL, USA, 130pp.

Works In Progress: *=Student work under my supervision; +=Student under collaborator’s supervision

Krauska Jr., J. J.; Nechols, J. R.; Kirkham, M. B.; Margolies, D. C.; Ruberson, J. R.; Hedenberg, M.; Vahl, C.; Loughin, T. M.; Zukoff, S. N. “Influence of Drought Stress on Interactions of Cotton *Gossypium hirsutum* (Malvales: Malvaceae), Twospotted Spider Mites *Tetranychus urticae* (Acari: Tetranychidae), and Western Flower Thrips *Frankliniella occidentalis* (Thysanoptera: Thripidae)”. Revision Requested.

*Surjanovic, N.; *Henrey, A. J.; and Loughin, T. M. “Alpha-trimming: an adaptive pruning algorithm for improving the performance of random forests.” In review. (<http://arxiv.org/abs/2408.07151>)

*Berkowitz, M.; Altman, R.; Loughin, T. “Targeted tuning of random forests for quantile estimation and prediction intervals.” In progress.

*Berkowitz, M.; Altman, R.; Loughin, T. “Bias correction for random forests (with application to prediction intervals).” In progress.

*Tian, J.; Loughin, T.; and Chipman, H. “MLCBART: Multilabel Classification with Bayesian Additive Regression Trees.” In progress.

*Ruth, W. and Loughin, T. M. “The effects of heteroscedasticity on regression trees.” In progress. (<http://arxiv.org/abs/1606.05273>)

+Cunningham, C.; Berard, R.; *Berkowitz, M.; Feldman, B.; Johnson, M.; Lim, L.; Loughin, T.; McPherson, M.; Miettunen, P.; Proulx-Gauthier, J.-P.; Rumsey, D.; Schmeling, H.; Tucker, L.; Houghton, K.; and Guzman, J. for CAPRI Registry Investigators. “Trajectories of Physical Function in Children with Juvenile Idiopathic Arthritis: Results from the CAPRI Registry.” In progress.

Chhabra, A.; *Berkowitz, M.; Batthish, M.; Berard, R.A.; Blanchette, N.; Boire, G.; Bolaria, R.; Celluci, T.; Chedeville, G.; Dancey, P.; De Bruycker, J.-J.; Duffy, C.; Espinosa, V.; Feldman, B.; Gerschman, T.; Herrington, J.; Houghton, K.; Huber, A.; Jariwala, M.; Johnson, N.; Li, L.; Lim, L.; Proulx-Gauthier, J.-F.; Roth, J.; Rumsey, D.; Schmeling, H.; Soon, G.; Toupin-April, K.; Tucker, L.; Wilson, J.; Loughin, T.; and Guzman, J. on behalf of the CAPRI Registry Investigators. “Standard improvement curves for expected changes in disease activity and quality of life indicators in Juvenile Idiopathic Arthritis: Results from the CAPRI Registry.” In progress.

Park, J.; Henrey, A.; Loughin, T.; and Guzman, J. for the ReACCh-Out and CAPRI Registry Investigators. “Balancing individual probabilities of disease control and side effects in the initial treatment of juvenile idiopathic arthritis: Results from ReACCh-Out and the CAPRI Registry”. In progress.

Refereed Publications: *=Student under my supervision; +=Student under collaborator’s supervision

Wong, S.; Tucker, L.; Houghton, K.; Cabral, D.; Chan, M.; Petty, R.; Human, A.; Morishita, K.; Yeung,

R.; Oen, K.; Duffy, C.; Berard, R.; Chedeville, G.; Loughin, T.; and Guzman J.; For the ReACCh-Out Investigators. (2025) “A tale of many Canadas: Associations of ethnicity with Juvenile Idiopathic Arthritis categories and disease severity at presentation to care.” *ACR Open Rheumatology*. Accepted.

*Berkowitz, M.; Altman, R.; Loughin, T. (2024) “Random forests for survival data: which methods work best and under what conditions?.” *International Journal of Biostatistics*, **20**, 315–345 (<https://doi.org/10.1515/ijb-2023-0056>).

Nosyk B, Min JE, Homayra F, Kurz M, Guerra-Alejos BC, Yan R, Piske M, Seaman SR, Bach P, Greenland S, Karim ME, Siebert U, Bruneau J, Gustafson P, Kampman K, Korthuis PT, Loughin T, McCandless LC, Platt RW, Schnepel KT, Socías ME. Buprenorphine/Naloxone vs Methadone for the Treatment of Opioid Use Disorder. (2024) *Journal of the American Medical Association*, **332**, 1822–1831. doi:10.1001/jama.2024.16954

Yan, R.; Kurz, M.; Guerra-Alejos, B.C.; et al.; and Nosyk, B. (2024). “What is the ideal time to begin tapering opioid agonist treatment? A protocol for a population-based comparative effectiveness study in British Columbia, Canada.” (2024) *BMJ Open*, **14**:e083453 (<https://doi.org/10.1136/bmjopen-2023-083453>).

Homayra, F.; Enns, B.; Min, J.E.; Kurz, M.; Bach, P.; Bruneau, J.; Greenland, S.; Gustafson, P.; Karim, M.E.; Korthuis, P.T.; Loughin, T.; MacLure, M.; McCandless, L.; Platt, R.W.; Schnepel, K.; Shigeoka, H.; Siebert, U.; Socias, E.; Wood, E.; and Nosyk, B. (2024). “Comparative Analysis of Instrumental Variables on the Assignment of Buprenorphine/Naloxone or Methadone for the Treatment of Opioid Use Disorder.” *Epidemiology*, **35**, 218–231 (<https://doi.org/10.1097/EDE.0000000000001697>).

*Surjanovic, N.; Loughin, T. M.; and Lockhart, R. (2023). “A Generalized Hosmer-Lemeshow Goodness-of-Fit Test for a Family of Generalized Linear Models.” *TEST*, **33**, 589–608, (<https://doi.org/10.1007/s11749-023-00912-8>).

*Surjanovic, N. and Loughin, T. M. (2023). “Improving the Hosmer-Lemeshow Goodness-of-Fit Test in Large Models with Replicated Bernoulli Trials.” *Journal of Applied Statistics*, **51**, 1399–1411. (<https://doi.org/10.1080/02664763.2023.2272223>).

Guerra-Alejos, B. Carolina; Kurz, Megan; Min, Jeong Eun; Dale, Laura; Piske, Micah; Bach, Paxton; Bruneau, Julie; Gustafson, Paul; Hu, X; Kampman, Kyle; Korthuis, P.; Loughin, Tom; MacLure, Malcolm; Platt, Robert; Siebert, U; Socías, M.; Wood, Evan; Nosyk, Bohdan. (2023) “Comparative effectiveness of urine drug screening strategies alongside opioid agonist treatment in British Columbia, Canada: A population-based observational study protocol.” *BMJ Open*, <http://dx.doi.org/10.1136/bmjopen-2022-068729>.

Houghton K.; McPherson M.; *Surjanovic N.; Loughin T.; Berard R.; Proulx-Gauthier JP.; Chédeville G.; Rumsey D.; Schmeling H.; Luca N.; Johnson N.; Gerschman T.; Miettunen P.; Tam H.; Lim L.; Morishita K.; Scuccimarrì R.; Roth J.; Duffy C.; Tucker L.; Feldman BM.; Guzman J.; for the CAPRI Registry Investigators. (2022) “Development and Validation of the Kids Disability Screen for Children with Juvenile Idiopathic Arthritis: Results from the CAPRI Registry.” *Rheumatology*, **61**, 4835–4844, <https://doi.org/10.1093/rheumatology/keac146>.

Loughin, T. M.; Bennett, S. N.; and Bouwes, N. (2021) “Designing Stream Restoration Experiments for Threatened Salmonids: Potential Benefits of Hierarchical-Staircase Designs Compared to BACI Approaches.” *Canadian Journal of Fisheries and Aquatic Sciences*, **78**, 670–680. <https://cdnsiencepub.com/doi/full/10.1139/cjfas-2020-0096>.

Becker, C. D.; Loughin, T. M.; Astudillo-Sanchez, E.; Wethington, S. (2021) “Interaction Strengths between Hummingbirds and Flowers in Ecuador.” *The Wilson Journal of Ornithology*, **132**, 522–536. <https://doi.org/10.1676/19-12>

Oen, K.; *Tian, J.; Loughin, T.; many others; and Guzman, J. (2021) “Causal pathways to health-related quality of life in children with juvenile idiopathic arthritis: Results from the ReACCh-Out cohort.” *Rheumatology*. doi:10.1093/rheumatology/keab079.

Loughin, T. M. and *Zhang, Y. (2020). “A Comparison of Methods for Identifying Location Effects in Unreplicated Fractional Factorials in the Presence of Dispersion Effects.” *Journal of Quality Technology*,

52, 54–66. <https://doi.org/10.1080/00224065.2019.1569960>

+Dorton, M. C.; +Lucci, V.-E.; de Groot, S.; Loughin, T. M.; Cragg, J. J.; Kramer, J. K.; Post, M.; and Claydon, V. E. (2020) “Evaluation of cardiovascular disease risk in individuals with chronic spinal cord injury.” *Spinal Cord*, **59**, 716–729. <https://doi.org/10.1038/s41393-020-00566-5>.

Henrey, A.; Rypdal, V.; Rypdal, M.; Loughin, T.; Nordal, E.; and Guzman, J. for the ReACCh-Out and NoSPeR Investigators (2020). “Validation of prediction models of severe disease course and non-achievement of remission in Juvenile Idiopathic Arthritis, part 2: results of the Nordic model in the Canadian cohort.” *Arthritis Research & Therapy*, **22**: 10, <https://dx.doi.org/10.1186/s13075-019-2091-8>.

Rypdal, V.; Guzman, J.; Henrey, A.; Loughin, T.; Glerup, M.; Arnstad, E.D.; Aalto, K.; Rygg, M.; Nielsen, S.; Herlin, T.; Fasth, A.; Berntson, L.; Rypdal, M.; and Nordal, E.; for the ReACCh-Out and NoSPeR Investigators (2019). “Validation of prediction models of severe disease course and non-achievement of remission in Juvenile Idiopathic Arthritis, part 1: Results of the Canadian model in the Nordic cohort.” *Arthritis Research & Therapy*, **21**: 270, <https://doi.org/10.1186/s13075-019-2060-2>

Guzman, J.; Oen, K.; Loughin, T. (2019). “Predicting disease severity and remission in juvenile idiopathic arthritis: are we getting closer?” *Current Opinion in Rheumatology*, **31**, 436–449. <https://doi.org/10.1007/s0000000000000620>.

Guzman J, Henrey A, Loughin T, Berard RA, Shiff NJ, Jurencak R, Huber AM, Oen K, Gerhold K, Feldman BM, Scuccimarri R, Houghton K, Chédeville G, Morishita K, Lang B, Dancey P, Rosenberg AM, Barsalou J, Bruns A, Watanabe Duffy K, Benseler S, Duffy CM, Tucker LB; ReACCh-Out Investigators. (2019) “Predicting Which Children with Juvenile Idiopathic Arthritis Will Not Attain Early Remission with Conventional Treatment: Results from the ReACCh-Out Cohort.” *Journal of Rheumatology*, **46**, 628–635. <https://doi.org/10.3899/jrheum.180456>

+Korall, A. M. B; Loughin, T. M.; Feldman, F.; Cameron, I. D.; Leung, P.-M.; Sims-Gould, J.; Godin, J.; and Robinovitch, S. N. (2018). “Determinants of Commitment to Hip Protectors among Long-Term Care Providers of a Regional Health Authority in British Columbia, Canada: A Cross-Sectional Survey.” *International Journal of Nursing Studies*, **82**, 139–148. <https://doi.org/10.1016/j.ijnurstu.2018.03.014>

*Henrey, A. and Loughin, T. M. (2017) “Joint Identification of Location and Dispersion Effects in Unreplicated 2^k Factorials.” *Technometrics*, **59**, 23–35. <https://doi.org/10.1080/00401706.2015.1114024>.

Guzman, J.; *Henrey, A.; Loughin, T.; Berard, R.; Shiff, N.; Jurencak, R.; Benseler, S.; and Tucker, L. on behalf of ReACCh-Out Investigators. (2017) “Predicting which Children with Juvenile Idiopathic Arthritis will have a Severe Disease Course: Results from the ReACCh-Out Cohort.” *Journal of Rheumatology*, **44**, 230–240, plus 24-page online supplement.

Loughin, T. M.; *Payne, N.; Casilla, R.; and Lum, C. (2017) “Statistical Analysis of Interlaboratory Tests with Discrete Data with Application to Structural Adhesive Testing.” *Journal of Testing and Evaluation*, **45**, 1543–1552.

Pasquier, P.; +Burnett, A.; +Gonzalez Thomas, N.; Maxwell, J. B.; Eigenfeldt, A.; Loughin, T. (2016) “Investigating Listener Bias against Musical Metacreativity.” *Proceedings of the Seventh International Conference on Computational Creativity*. (<http://www.computationalcreativity.net/iccc2016/wp-content/uploads/2016/01/Investigating-Listener-Bias-Against-Musical-Metacreativity.pdf>)

+Shaw, B. H.; Loughin, T. M.; Robinovitch, S. N.; and Claydon, V. E. (2015) “Cardiovascular Responses to Orthostasis and their Association with Falls in Older Adults.” *BMC Geriatrics*, **15**(1). (<http://bmcgeriatr.biomedcentral.com/articles/10.1186/s12877-015-0168-z>).

+Joksimović, S.; Gašević, D.; Loughin, T. M.; Kovanović, V.; and Hatala, M. (2015) “Learning at distance: Effects of interaction traces on academic achievement.” *Computers & Education*, **87**, 204–217.

+Shaw, B. H.; Loughin, T. M.; Mackay, D. C.; Robinovitch, S. N. and Claydon, V. E. (2014) “The effect of orthostatic stress type on cardiovascular control.” *Blood Pressure Monitoring*, **19**, 327–338.

- Loughin, T. M. and *Malone, C. J. (2013) “An Adaptation of the Bergman-Hynén Test for Dispersion Effects in Unreplicated Two-Level Factorial Designs When The Location Model May Be Incorrect.” *Journal of Quality Technology*, **45**, 350–359.
- Rivers, J. W.; Blundell, M. A.; Loughin, T. M.; Peer, B. D.; and Rothstein, S. I. (2013). “The exaggerated begging behaviour of an obligate avian brood parasite is shared with a nonparasitic close relative.” *Animal Behaviour*, **86**, 529–536.
- *Fang, L. and Loughin, T. M. (2013). “Analyzing Binomial Data in a Split-plot Design: Classical Approach or Modern Techniques?” *Communications in Statistics: Computation and Simulation*, **42**, 727–740.
- +Uppal, R., Ramaswamy, G. N., and Loughin, T. (2013) “A novel method to assess degree of crystallinity of aramid filament yarns.” *Journal of Industrial Textiles*, **43**, 3–19.
- +Linkletter, C. D.; +Ranjan, P.; +Lin, C. D.; Bingham, D. R.; Brennenman, W. A.; Lockhart, R. A.; and Loughin, T. M. (2012). “Compliance Testing for Random Effects Models with Joint Acceptance Criteria”. *Technometrics*, **54**, 243–255.
- Hansen, M. C., Hagen, C. A., Loughin, T. M., Budeau, D. A., Coggins, V. L. and Reishus, B. S. (2012). “Temporal changes in age and sex ratios of forest grouse harvested in northeastern Oregon”. *The Journal of Wildlife Management*, **76**, 356–362
- Varland, D. E.; Buchanan, J. B.; Fleming, T. L.; Kenney M. K.; Loughin, T. M. (2012) “Peregrine Falcons on Coastal Beaches of Washington: Banding and Surveys: 1995-2010”. *Journal of Raptor Research*, **46**, 57–74.
- Loughin, T. M. and *Rodríguez, J. E. (2011) “Computational issues with fitting joint location/dispersion models in unreplicated 2^k factorials”. *Computational Statistics and Data Analysis*, **55**, 491–497.
- Loughin, T. M. and Bilder, C. J. (2011) “On the use of a log-rate model for survey-weighted categorical data”. *Communications in Statistics – Theory and Methods*, **40**, 2661–2669.
- +Hagen, C. A.; +Pitman, J. C.; Loughin, T. M.; Sandercock, B. F.; and Robel, R. J. (2011) “Impacts of Anthropogenic Features on Lesser Prairie-Chicken Habitat Use”. *Studies in Avian Biology*, **39**, 63–76.
- Rivers, J.W.; Loughin, T. M. and Rothstein, S.I. (2010) “Brown-headed cowbird nestlings influence nestmate begging, but not parental feeding, in hosts of three distinct sizes”. *Animal Behaviour*, **79**, 107–116.
- +Mandyam, K. G.; Loughin, T. M.; and Jumpponen, A. (2010) “Isolation and morphological and metabolic characterization of common endophytes in annually burned tallgrass prairie”. *Mycologia*, **102**, 803–812.
- +Frantz, N. Z.; Friesen, K. G.; Andrews, G. A.; Tokach, M. D.; Yamka, R. M.; Loughin, T. M.; Nelssen, J. L.; and Dritz, S. S. (2010) “The Use of Serum Biomarkers to Predict the Development and Severity of Osteochondrosis Lesions in the Distal Portion of the Femur of Pigs”. *American Journal of Veterinary Research*, **71**, 946–952.
- Bilder, C. J. and Loughin, T. M. (2009) “Modeling multiple-response categorical data from complex surveys.” *Canadian Journal of Statistics*, **37**, 553–570.
- Hatala, M.; Tanenbaum, K.; Wakkary, R.; Muise, K.; Mohabbati, B.; Corness, G.; Budd, J.; and Loughin, T. (2009) “Experience Structuring Factors Affecting Learning in Family Visits to Museums.” In: Cress, U., Dimitrova, V., Specht, M. (Eds.): *Learning in the Synergy of Multiple Disciplines, Proceedings of the 4th European Conference on Technology Enhanced Learning (ECTEL09)*, LNCS 5794, **Springer-Verlag**, pp.37–51.
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- Hagen, C. A. and Loughin, T. M. (2008) “Productivity Estimates from Upland Bird Harvests: Estimating Variance and Necessary Sample Sizes.” *Journal of Wildlife Management*, 1369–1375.

- Loughin, T. M. and *Bargen, J. L. (2008) "Assessing Pitcher and Catcher Influences on Base Stealing in Major League Baseball." *Journal of Sports Science*, **26** 15–20.
- Becker, C. D.; Loughin, T. M. ; Santander, T. (2008) "Identification of forest-obligate birds by mist netting and strip counts in Andean Ecuador." *Journal of Field Ornithology*, **79**: 229–244.
- +Thiagarajan, B.; Cully Jr., J. F.; Loughin, T. M.; Monteneri, J. A.; Gage, K. L. (2008) "Geographic variation in rodent-flea relationships in the presence of black-tailed prairie dog colonies." *Journal of Vector Ecology*, **33**, 178–190.
- +Young, M. G.; Tokach, M. D.; Aherne, F. X.; Dritz, S. S., Goodband, R. R.; Nelssen, J. L.; and Loughin, T. M. (2008). "Effect of space allowance during rearing and selection criteria, on performance of gilts over three parities, in a commercial swine production system." **86**, 3181–3193, *Journal of Animal Science*.
- Bilder, C. R. and Loughin, T. M. (2007) "Modeling Association Between Two or More Categorical Variables that allow for Multiple Category Choices." *Communications in Statistics, Theory and Methods*, **36(2)**, 433–451.
- Loughin, T. M.; *Roediger, M. P.; Milliken, G. A.; and Schmidt, J. P. (2007) "On the Analysis of Long-Term Experiments." *Journal of the Royal Statistical Society, Series A*, **170**, 29–42.
- +Zhao, X.; Chambers IV, E.; Matta, Z.; Loughin, T. M.; and Carey, E. E. (2007) "Consumer Sensory Analysis of Organically and Conventionally Grown Vegetables." *Journal of Food Science*, **72**, S87–S91.
- +Hagen, C.A.; +Pitman, J.C.; Robel R.J.; Loughin, T.M.; Applegate, R.D. (2007). "Niche partitioning by lesser prairie-chicken *Tympanuchus pallidicinctus* and ring-necked pheasant *Phasianus colchicus* in southwestern Kansas." *Wildlife Biology*, **13 (Suppl 1)**, 34–41.
[https://doi.org/10.2981/0909-6396\(2007\)13\[34:NPBLPT\]2.0.CO;2](https://doi.org/10.2981/0909-6396(2007)13[34:NPBLPT]2.0.CO;2).
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- +Stoltenberg, S. K.; Getty, K. J. K.; Thippareddi, H.; Phebus, R. K. and Loughin, T. M. (2006) "Fate of *Escherichia coli* O157:h7 During Production of Snack Sticks Made from Beef or a Venison/Beef Fat Blend and Directly Acidified with Citric or Lactic Acid." *Journal of Food Science*, **71**, M228–235.
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- +Pitman, J. C.; +Hagen, C. A.; Jamison, B. E.; Robel, R. J.; Loughin, T. M.; and Applegate, R. D. (2006) "Survival of Juvenile Lesser Prairie-Chickens in Kansas." *Wildlife Society Bulletin*, **34**, 675–681.
- +Kim, Y. H.; Hunt, M. C.; +Mancini, R. A.; +Seyfert, M.; Loughin, T. M.; Kropf, D. H., and Smith, J. S. (2006) "Mechanism for Lactate-Color Stabilization in Injection-Enhanced Beef." *J. Agric. Food Chem.*, **54(20)**, 7856–7862.
- Loughin, T. M. (2005). Comments on "The Analysis of Ordered Categorical Data: An Overview and Some Recent Developments." *TEST*, **14**, 41–44.
- *+Cochrane, C.-Y. C.; Dubnicka, S., and Loughin, T. (2005) "Comparison of Methods for Analyzing Replicated Preference Tests." *Journal of Sensory Studies*, **20(6)**, 484–502.
- +Pitman, J. C.; +Hagen, C. A.; Robel, R. J.; Loughin, T. M.; and Applegate, R. D. (2005) "Gender Identification and Growth of Juvenile Lesser Prairie-Chickens." *The Condor*, **107**, 87–96.
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Other Publications

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- Guzman, J.; *Henrey, A.; Loughin, T.; Berard, R.; Shiff, N.; Jurencak, R.; Benseler, S.; Tucker, L. B. (2015) "Using Patient-Relevant Variables to Describe the Disease Course in Children with Juvenile Idiopathic Arthritis [abstract]." *Arthritis & Rheumatology*, **67** (suppl 10): <http://acrabstracts.org/abstract/using-patient-relevant-variables-to-describe-the-disease-course-in-children-with-juvenile-idiopathic-a>
- Tucker, L.B.; Shiff N.; Benseler S.; Berard R.; Jurencak R.; Loughin T.; Guzman J.; *Henrey A. (2015). "Scoring Medication Requirements and Side-Effects in Juvenile Idiopathic Arthritis: Perspectives of Patients, Parents and Clinicians [abstract]." *Arthritis & Rheumatology*, **67** (suppl 10): <http://acrabstracts.org/abstract/scoring-medication-requirements-and-side-effects-in-juvenile-idiopathic-arthritis-perspectives-of-pati>
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- Bilder, C. R. and Loughin, T. M. (2007) "Estimation and Testing for Association with Multiple-Response Categorical Variables from Complex Surveys." *Proceedings of the Survey Research Methods Section, ASA*.

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- Berman, N.; Gansky, S.; Gullion, C.; Loughin, T.; and Sanchez, M. (2003) “When You Consult a Statistician — What to Expect.” *The Statistical Consultant* 20(3).
- +Stephens, J.W.; Unruh, J.A.; Dikeman, M.A.; Hunt, M.C.; Lawrence, T.E.; and Loughin, T.M. (2003) “Evaluation of Mechanical Probes Used on Uncooked Steaks to Classify Beef *Longissimus* Tenderness.” *Cattlemen’s Day*, 9–13.
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- Loughin, T. M. (2001) Review of *Data Analysis by Resampling: Concepts and Applications* by C. E. Lunneborg. *Technometrics*, **43**, 373–374.
- +Limsupavanich, R.; Boyle, E. A. E.; Kropf, D. H.; Hachmeister, K. A.; Loughin, T. M.; and Boland, M. A. (2000) “Quality and Display Life of Chilled or Frozen All-Natural Beef and Buffalo-Beef Frankfurters.” *Cattlemen’s Day*, 113–116.
- Loughin, T. M. and *Bilder, C. R. (1999) Review of *Bootstrap Methods and Their Application* by A. C. Davison and D. V. Hinkley. *Journal of the American Statistical Association*, **94**, 334.
- +Thangavadivelu, S., Loughin, T., and Slocombe, J. (1995) “Soil Hydraulic Conductivity under Simulated Track and Wheel Machinery Traffic.” *Proceedings of the 5th North American ISTVS Conference/Workshop*, 43–52.
- Loughin, T. M.; Cox, D. F.; Hinz, P. N.; Schapaugh, Jr, W. T.; and Kilgore-Norquest, L. (1994) “Experimental Error in Agronomic Field Trials.” *Proceedings of the 1994 Kansas State University Conference on Applied Statistics in Agriculture*. 149–162.

WORKSHOPS AND SHORT COURSES

- Loughin, T. M. “Machine Learning Applications in R.” Invited Plenary Skills Session at the Seventh Canadian Statistics Student Conference, May 25, 2019, Calgary.
- Bilder, C. R. and Loughin, T. M. (Co-presenters) “Analysis of Categorical Data.” Full-day workshop presented at the Joint Statistical Meetings, August 1, 2017, Baltimore.
- Bilder, C. R. and Loughin, T. M. (Co-presenters) “Analysis of Categorical Data.” *Invited* full-day workshop presented at the Annual Meeting of the Statistical Society of Canada, May 29, 2016, St. Catharines, ON.
- Bilder, C. R. and Loughin, T. M. (Co-presenters) “Analysis of Categorical Data.” Full-day workshop presented at the Joint Statistical Meetings, August 9, 2015, Seattle.
- Loughin, T. M. “Improving Communication with Collaborators by ‘Doctoring’ the Environment.” Talk and day-long workshop delivered to a private company, September 26, 2014.
- Loughin, T. M. “Methods and Models for Categorical Data in Agriculture.” Invited workshop presented at the Conference on Applied Statistics in Agriculture, Manhattan, Kansas, April 27, 2008.

Loughin, T. M. “Introduction to the Bootstrap” and “Multiple Testing, Multiple Comparisons, and the Bootstrap.” Invited workshops presented to the Schiefelbusch Institute for Lifespan Studies, University of Kansas, May 10, 2002.

Loughin, T. M. “Issues in the Design and Analysis of Multiple Experiments.” Special Workshop, 1995 AES/CES Annual Conference, November 7, 1995; Manhattan, KS.

SELECTED PRESENTATIONS AND POSTERS

Loughin, T. M. “Ins and Outs of Professional Consulting and Collaboration.” Invited Talk and Panel, Annual Meeting of the Statistical Society of Canada, May 26, 2025, Saskatoon, SK, Canada.

Loughin, T. M. “Draft SSC Statement on Role of Statistics in Data Science and AI.” Invited Talk, Annual Meeting of the Statistical Society of Canada, May 26, 2025, Saskatoon, SK, Canada.

Loughin, T. M. “Statistical Learning about Statistical Learning.” Invited Talk, University of Calgary, January 17, 2025, Calgary, AB, Canada.

Loughin, T. M. “MLCBART: Multilabel Classification with Bayesian Additive Regression Trees.” Contributed Talk, Joint Statistical Meetings, August 6, 2024, Portland, OR, USA.

Loughin, T. M. “Richard is 70!.” Invited Exposition, Statistical Learning for Large Scale Data: A conference celebrating the 70th birthday of Richard Lockhart, June 21, 2024, Burnaby, BC, Canada.

Loughin, T. M. “Statistical Learning about Statistical Learning.” Invited Plenary Banquet Talk, ISCA Canada Chapter Symposium June 8, 2024, Niagara Falls, ON, Canada.

Loughin, T. M. “MLCBART: Multilabel Classification with Bayesian Additive Regression Trees.” Invited Talk, ISCA Canada Chapter Symposium June 8, 2024, Niagara Falls, ON, Canada.

Loughin, T. M. “MLCBART: Multilabel Classification with Bayesian Additive Regression Trees.” Invited Talk, Annual Meeting of the Statistical Society of Canada, June 3, 2024, St. John’s, NL, Canada.

Loughin, T. M. “Statistical Learning about Statistical Learning.” Invited talk, Statistics Canada, September 21, 2023, Ottawa, ON, Canada [by Zoom].

Loughin, T. M. “Statistical Learning about Statistical Learning.” Invited Plenary Banquet Talk, ASA/IMS Spring Research Conference, May 25, 2023, Banff, AB, Canada.

Loughin, T. M. “CASSIS Student Training Day: Modern Statistical Methods in Sports Analytics.” Invited student training presentation, Cascadia Symposium on Statistics in Sports, September 23, 2022, Burnaby, BC.

Loughin, T. M. “Collaboration: A Win-Win-Win Venture.” Invited panel talk and discussion, Annual Meeting of the Statistical Society of Canada, June 1, 2022 [by Zoom].

Loughin, T. M. and Henrey, A. “Adaptively Pruned Random Forests Using Likelihood-Based Trees.” Invited Talk, McMaster University Department of Mathematics and of Statistics, March 29, 2022, Hamilton, ON [by Zoom].

Loughin, T. M. and Henrey, A. “Adaptively Pruned Random Forests Using Likelihood-Based Trees.” Invited Talk, Kansas State University Department of Statistics, March 11, 2021, Manhattan, KS [by Zoom].

Loughin, T. “Research and Programs at Simon Fraser University.” Invited talk, October 11, 2019, Central South University, Changsha, Hunan, China.

Loughin, T. M. and Henrey, A. “Adaptively Pruned Random Forests for Modeling Means and Variances Simultaneously” Invited Talk, 2018 Joint Research Conference on Statistics in Quality, Industry, and Technology, June 14, 2018, Santa Fe, NM.

Loughin, T. M. (Moderator); Gerges, N.; Campbell, D. A.; and Braun, W. J. “A Discussion of Collaborative Funding Opportunities.” Panel discussion at 2018 Statistical Society of Canada Meeting, June 5, 2018, Montreal, QC.

Loughin, T. M. and Henrey, A. “Adaptively Pruned Random Forests Using Likelihood-Based Trees”

Invited Talk, Iowa State University Department of Statistics, March 26, 2018, Ames, Iowa.

Loughin, T. M. and Henrey, A. “Adaptive Pruning for Random Forests: It Helps!” Contributed SPEED Talk/poster at the 2017 Joint Statistical Meetings, August 2, 2017, Baltimore.

Loughin, T. M. and Henrey, A. “Robust Adaptively Pruned Random Forests Using Likelihood-Based Trees.” Invited talk at the 2016 Statistical Society of Canada Meeting, May 30, 2016, St. Catharines, ON.

Loughin, T. M. and Henrey, A. “Heteroscedastic Regression Trees for Joint Modeling of Means and Variances.” Contributed talk at the 2015 Joint Statistical Meetings, August 11, 2015, Seattle.

Loughin, T. M. and Henrey, A. “Heteroscedastic Regression Trees for Joint Modeling of Means and Variances.” Invited talk at the 2015 Statistical Society of Canada Meeting, June 15, 2015, Halifax, NS.

Loughin, T. M. “Improving Communication with Collaborators by ‘Doctoring’ the Environment.” Invited Talk for the Winter 2015 SFU/UBC Joint Seminar, February 28, 2015. Burnaby, BC.

Loughin, T. M. and Ruth, W. “Effect of Heteroscedasticity on Regression Trees.” Contributed talk at the 2014 Joint Statistical Meeting, August 5, 2014, Boston, MA.

Loughin, T. M. and Ruth, W. “Effect of Heteroscedasticity on Regression Trees.” Contributed talk at the 2014 Statistical Society of Canada Meeting, May 27, 2014, Toronto, ON.

Loughin, T. M. and Henrey, A. “Joint Model Selection for Location and Dispersion Effects in Unreplicated Factorial Experiments.” Contributed talk at the 2013 Joint Statistical Meeting, August 4, 2013, Montreal, QC.

Loughin, T. M. and Henrey, A. “Joint Model Selection for Location and Dispersion Effects in Unreplicated Factorial Experiments.” Contributed talk at the 2013 Statistical Society of Canada Meeting, May 29, 2013, Edmonton, AB.

Payne, N. and Loughin, T. “The Development of a Wood Adhesive Testing Procedure.” Invited talk at Wood Products Stochastic Modeling Group meeting, May 25, 2103, Vancouver, BC.

Loughin, T. M., Bouwes, N. and Bennett, S. “Design Considerations for Ecosystem Experiments: Asotin Creek IMW Case Study.” Contributed talk at the 2011 American Fisheries Society Meetings, September 6, 2011; Seattle, WA.

Loughin, T. M. and Zhang, Y. “A Comparison of Location Effect Identification Methods for Unreplicated Fractional Factorials in the Presence of Dispersion Effects.” Contributed talk at the 2011 Joint Statistical Meetings, July 31, 2011; Miami Beach, FL.

Loughin, T. M. “Bullseyes and Bull****: How the Law of Large Numbers Influences Decision Making in Science, Business and Politics.” Invited talk for inaugural Science Alumni Session, SFU Surrey Open House, May 28, 2011, Surrey, BC.

Loughin, T. M. “Working with Researchers: Communication is the Key,” Invited Talk for the 2010 SFU/UBC Statistics and Actuarial Science Joint Graduate Student Workshop, September 13, 2010; Vancouver, BC.

Loughin, T. M. and Bilder, C. R. “Modeling Multiple-Response Categorical Data From Complex Surveys.” Invited Talk, University of Victoria, March 26, 2010, Victoria, BC.

Loughin, T. M. “SRC Banquet Speech.” Invited Plenary Talk, ASA/IMS Spring Research Conference, May 20, 2009, Burnaby, BC.

Loughin, T. M. “Better Design and Analysis of Long Term Experiments,” Invited Keynote Address at the 2008 Conference on Applied Statistics in Agriculture, Manhattan, Kansas, April 28, 2008.

Loughin, T. M. and Bilder, C. R. “Modeling Multiple-Response Categorical Data From Complex Surveys.” Invited Talk, Joint SFU/UBC Statistics Seminar, December 7, 2007, Vancouver, BC

Bilder, C. R. and Loughin, T. M. (Co-presenters) “Modeling Multiple-Response Categorical Data From Complex Surveys.” Invited Talk, Washington Statistical Society, September 7, 2007, Washington, DC

Loughin, T. M. and Bargaen, J. L. "Assessing Pitcher and Catcher Influences on Base Stealing in Major League Baseball." Contributed talk at the 2007 Joint Statistical Meetings, July 29, 2007; Salt Lake City, UT.

Loughin, T. M. and Bilder, C. R. "Modeling Marginal Dependence Between Two or More Multiple-Response Categorical Variables," Contributed Talk at the 2007 meeting of the Statistical Society of Canada, June 11, 2007; St. John's, NL.

Loughin, T. M. "Working with Researchers: Communication is the Key," Invited Talk for the 2006 4th SFU/UBC Statistics and Actuarial Science Graduate Student Workshop, November 18, 2006; Burnaby, BC.

Loughin, T. M. "Statistical Consulting at Kansas State University," Invited presentation/panelist for the Academic Reps Panel on Consulting, 2006 Joint Statistical Meetings, August 7, 2006, Seattle, WA.

Loughin, T. M. and Bilder, C. R. "Modeling Marginal Dependence Between Two or More Multiple-Response Categorical Variables," Invited Talk, Department of Mathematics, University of Kansas, March 29, 2006.

Loughin, T. M. "Better Design and Analysis for Long Term Experiments," Invited Talk, Department of Statistics and Actuarial Science, Simon Fraser University, February 28, 2006.

Loughin, T. M. and Bilder, C. R. "Modeling Marginal Dependence Between Two or More Multiple-Response Categorical Variables," Invited Talk, Statistics Group, Los Alamos National Labs, December 5, 2005.

Loughin, T. M. "Better Design and Analysis for Long Term Experiments," Invited Talk at the 2005 ASA-CSSA-SSSA International Annual Meetings, November 8, 2005, Salt Lake City, UT.

Loughin, T. M. (Host) "Working with researchers: Communication is the Key" Roundtable Luncheon at the 2005 Joint Statistical Meetings, August 8, 2005; Minneapolis, MN.

Loughin, T. M. "Seven Error Terms!! Are You Kidding??" Invited Talk at the 2005 Joint Statistical Meetings, August 7, 2005, Minneapolis, MN.

Loughin, T. M. and Bilder, C. R. "Modeling Marginal Dependence Between Two or More Multiple-Response Categorical Variables," Invited Talk, Department of Statistics and Actuarial Science, Simon Fraser University, November 18, 2004.

Bilder, C. R. and Loughin, T. M. (Co-presenters) "Testing for Marginal Dependence Between Two or More Multiple-Response Categorical Variables," Invited Talk, The Third Annual Funding Opportunity in Survey and Statistical Research Seminar, June 21, 2004, Bureau of Labor Statistics, Washington, DC

Loughin, T. M. "Sensible Graphics for Presentations and Papers," Invited Talk, Division of Biology, K-State Ecology Research Group, Kansas State University, April 15, 2004

Loughin, T. M. "Working with Researchers in the Agricultural Sciences: Communication is the Key," Topic Contributed Talk at the 2003 Joint Statistical Meetings, August 4, 2003; San Francisco, CA.

Loughin, T. M. and Malone, C. J. "Distinguishing between Dispersion and Location effects in Unreplicated Factorials," Invited Talk, Spring Research Conference on Statistics in Industry and Technology; June 5, 2003; Dayton, OH.

Loughin, T. M. "Seven Error Terms??? You've Got To Be Kidding!" Contributed paper at the 2002 Kansas State University Conference on Applied Statistics in Agriculture; April 30, 2002; Manhattan, KS.

Loughin, T. M., House, J. A., and Zhou, S. "Multiple Testing with Stepwise P-value Combinations" Invited Talk, Department of Statistics, University of Central Florida, November 7, 2001.

Derr, J. and Loughin, T. (Cohosts) "How Can Statisticians and Their Clients Improve the Way They Work Together?" Roundtable Luncheon at the 2001 Joint Statistical Meetings, August 7, 2001; Atlanta, GA.

Loughin, T. M. "Experimental Design in Agricultural Research (Splits and Strips and Blocks, Oh My!)" Invited Keynote Address at the 2001 Iowa Mathematics Meeting, Joint Meeting of MAA and ASA, Des Moines, Iowa, April 7, 2001.

Loughin, T. M. "A Systematic Comparison of Methods for Combining Independent Tests." Contributed paper at the 2000 Joint Statistical Meetings, August 15, 2000; Indianapolis, IN.

Loughin, T. M.; Johnson, D. E.; Ives, S. E.; and Nagaraja, T. G. "Crossover Designs for Two Factors in a Split Plot." Contributed paper at the 1999 Joint Statistical Meetings, August 11, 1999; Baltimore, Maryland.

Loughin, T. M.; Johnson, D. E.; Ives, S. E.; and Nagaraja, T. G. "Crossover Designs for Two Factors in a Split Plot." Contributed paper at the 1999 Kansas State University Conference on Applied Statistics in Agriculture; April 27, 1999; Manhattan, KS.

Loughin, T. M. "Experimental Design in Entomology: A Refresher." Invited talk, Department of Entomology, Kansas State University, September 18, 1998.

Panelist on "Generalized Linear Models." Special Contributed Panel at the 1998 Joint Statistical Meetings, August 12, 1998; Dallas, Texas.

Loughin, T. M. and Skinner, D. Z. "Testing for Molecular Marker-Trait Associations in Autotetraploid Alfalfa." Contributed paper at the 1998 Kansas State University Conference on Applied Statistics in Agriculture; April 27, 1998; Manhattan, KS.

Loughin, T. M. "Topics in Correlated Binary Data." Invited Talk Department of Statistics, Iowa State University, February 11, 1998

Loughin, T. M. and Scherer, P. N. "Testing for General Association in Contingency Tables with Multiple Column Responses." Contributed paper at Statistics for Correlated Data: A Conference Marking the 50th Anniversary of the Department of Statistics at Iowa State University, October 17, 1997; Ames, Iowa.

Loughin, T. M. and Scherer, P. N. "Testing for General Association in Contingency Tables with Multiple Column Responses." Third North American Conference of New Researchers in Statistics and Probability, July 25, 1997; Laramie, Wyoming.

Loughin, T. M. and Scherer, P. N. "A Bootstrap Approach to Testing for General Association in Contingency Tables with Multiple Column Responses." Contributed paper at the 1996 Joint Statistical Meetings, August 6, 1996; Chicago, Illinois.

Loughin, T. M. "The World According to Efron, or What is that Bootstrap Thingy, Anyway?" Invited Talk before the Statistics Group, DowElanco, December 11, 1995; Indianapolis, IN.

Loughin, T. M.; Loughin, M. M.; Condon, R; and Schwenke, J. R. "Estimating the Expectation of a Ratio from Independent Samples, with Application to Efficacy of a Worming Treatment." Contributed paper at the 1995 Biometrics ENAR Meetings; March 29, 1995; Birmingham, Al.

Loughin, T. M. and Noble, W. "A Permutation Test for Effects in an Unreplicated Factorial Design." Contributed paper at the 1994 Joint Statistical Meetings, August 18, 1994; Toronto, Ontario, Canada.

Loughin, T. M.; Cox, D. F.; Hinz, P. N.; Schapaugh, Jr, W. T.; and Kilgore-Norquest, L. "Experimental Error in Agronomic Field Trials." Contributed paper at the 1994 Kansas State University Conference on Applied Statistics in Agriculture; April 26, 1994; Manhattan, KS.

Loughin, T. M. and Noble, W. "TEST YOUR SKILL! A survey on interpreting half-normal plots." Contributed poster at the 1994 Kansas State University Conference on Applied Statistics in Agriculture; April 26, 1994; Manhattan, KS.

Loughin, T. M. "Bootstrapping in Proportional Hazards Models with Fixed Explanatory Variables," Contributed paper at Biometrics ENAR Meeting; March 23, 1993; Philadelphia, PA.

CURRENT FUNDING

Loughin, T.M. "Meta-learning and uncertainty quantification for statistical learning." National Science and Engineering Research Council Discovery Grant. 04/01/24 – 03/31/29. \$155,000

Guzman, J.; Feldman, B.; Li, L.; Loughin, T.; Stringer, E.; Toupin April, K.; and Tucker, L. "Treating Children with Arthritis According to their Individual Probability of Outcomes and Response to

Treatments - The PERSON-JIA Trial.” CIHR Project Grant, 5 years, \$455,175, \$20,000 for Statistics.

Tucker, L. (PI); Feldman, B.; Cabral, D.; Guzman, J.; Wilson, J.; Li, L.; Loughin, T.; Stringer, E.; Toupin April, K. “PERSON-JIA: The Personalized Estimates of Response and Severity Outcomes in newly-diagnosed Juvenile Idiopathic Arthritis trial.” The Arthritis Society Strategic Operating Grant, 3 years, \$294,080 total, \$20,000 for Statistics.

PAST FUNDING

Nosyk, B. “Emulating target trials with big data to strengthen the evidence base for the clinical management of opioid use disorder.” National Institutes of Health (NIH). 03/15/21 – 01/31/26. USD\$2,434,754. (I am an invited collaborator, but no longer involved in the projects.)

Loughin, T.M. “Semiparametric Statistical (Machine) Learning.” National Science and Engineering Research Council Discovery Grant. 04/01/18 – 03/31/24. \$138,000.

Guzman, J.; Schmeling, H.; Chedeville, G.; Berard, R.; Loughin, T.; Huber, A.; and Feldman, B. “The Ondansetron Premedication Trial in Juvenile Idiopathic Arthritis, OPT-JIA” The Arthritis Society, Strategic Operating Grant #SOG-18-0352. Jan 1 2019–Dec 31 2023. Total Value \$320,336, \$40,000 for Statistics

Claydon, V., et al. (co-applicant). “Mechanisms and Management of Paediatric Syncope.” Heart and Stroke Foundation of Canada. 04/01/18 – 03/31/21. \$197,450. \$6,000 for Statistics.

Loughin, T.M. “Structural Equation Modeling of Health-Related Quality of Life in Patients with Juvenile Idiopathic Arthritis.” Support for a graduate student from Dr. Jaime Guzman, BC Children’s Hospital and UBC. Sept 1, 2018–April 30, 2019. \$10,000.

Loughin, T.M. “Heteroscedastic trees, ensembles, and other joint models for means and variances.” National Science and Engineering Research Council (Application ID 342205). 05/01/13 – 04/30/18. \$75,000.

Loughin, T.M. “Joint BSc program in Actuarial Science.” SFU International Engagement Fund. 11/01/16–10/31/17. \$4,000.

Loughin, T.M. “Hong Kong Department Alumni Dinner.” SFU Alumni Association. 10/29/17. \$4,000.

Guzman J., Loughin T., Berard R., Shiff NJ., Jurencak R., Benseler S., Tucker L. B. “Predicting disease course in children with Juvenile Idiopathic Arthritis.” Funded by the Canadian Initiative for Outcomes in Rheumatology Care (CIORA). July, 2014 – December 2015. CA\$65,053.

Loughin, T. M. “Unrestricted Grant in Support of Research.” Procter and Gamble. US\$50,000.

Member of FPInnovations-SFU-UBC Forest Products Stochastic Modeling Group, NSERC CRD 2012 – 2015. \$125,800 to SFU; \$490,000 total.

Loughin, T.M. “Identifying Dispersion Effects in Unreplicated Multilevel Factorial Experiments .” National Science and Engineering Research Council. 07/01/07 – 06/30/12. \$80,000.

Loughin, T.M. “President’s Research Grant.” Simon Fraser University. 07/01/07 – 06/30/09. \$9,856.

Loughin, T.M. “ Collaborative Research: Estimation and Testing for Associations with Multiple-Response Categorical Variables from Complex Surveys” Collaborative work with C. R. Bilder. NSF/Research on Survey and Statistical Methodology. 10/01/04 – 09/30/07. \$53,170.

Loughin, T.M. “Collaborative Research: Testing for Marginal Independence between Two or More Multiple Response Categorical Variables” Collaborative work with C. R. Bilder. NSF/Research on Survey and Statistical Methodology. 9/1/02 – 8/31/03. \$28,065.

\$1500 from Grain Industry Alliance for Statistical Consulting Activities (2002).

\$1000 from Grain Industry Alliance for Statistical Consulting Activities (2001).

Loughin, T. M. “Visiting International Scholars.” Mid-America Universities, International. Total income: \$1,000. (1999)

Stevens, A. B. and Loughin, T. M. “Retail Florist Supplies and Purchase Criteria Survey.” Koehler-Dramm Wholesale Florists, Inc. Total income: \$4,500. (1998)

Loughin, T. M. “Mathematical Sciences Computing Research Environments.” NSF/SCREMS (Scientific Computing Research Environments for the Mathematical Sciences). 07/01/96–06/30/98. Total income: \$45,642.

\$7000 from DowElanco to investigate nonlinear calibration methods. (1996)

Stevens, A. B. and Loughin, T. M. “A Comparison of Vase Life of Fresh Cut Flowers Placed in Metal *vs.* Crystal Vases.” Nambe Mills, Inc. Total income: \$2,500. (1996)

Kansas Greenhouse Growers’ Association: \$1100 in grants in appreciation of assistance to floriculture research. (1995–1997)

PROFESSIONAL AND SELECTED UNIVERSITY SERVICE

Editorial

Member, Advisory Board for *Data Science for Science* (2021-present)

Associate Editor, *American Statistician* (2020-2023)

Statistical Reviewer, *Developmental Medicine and Child Neurology*, (2008–2010)

Book Review Editor, *Biometrics*, (2006–2009)

Associate Editor, *Technometrics*, (2001–2003)

Refereed papers for *Agronomy Journal*; *American Statistician*; *Annals of the Institute of Statistical Mathematics*; *Annals of Statistics*; *Applied Mathematics-A Journal of Chinese Universities*; *The Auk*; *Biometrics*; *Biometrika*; *BMC Veterinary Research*; *BMJ Open*; *Canadian Journal of Statistics*; *Communications in Statistics*; *Computational Statistics and Data Analysis*; *Environmental and Ecological Statistics*; *Journal of the American Statistical Association*; *Journal of Agricultural, Biological, and Environmental Statistics*; *Journal of Computational and Graphical Statistics*; *Journal of Raptor Research*; *Journal of the Royal Statistical Society*; *Journal of Quality Technology*; *Journal of Quantitative Analysis in Sports*; *Journal of Statistical Computation and Simulation*; *Journal of Statistical Planning and Inference*; *Metrika*; *Metron*; *Psychological Reports*; *Proceedings from the Conference on Applied Statistics in Agriculture*; *Quality Engineering*; *Science of the Total Environment*; *Statistics in Biosciences*; *Statistics in Medicine*; *Statistical Methods and Applications*; *Technometrics*.

Reviewed grant proposals for National Science Foundation; Iowa Pork Producers’ Association; K-State Research and Extension.

Professional Societies

Elected Member, SSC Accreditation Committee (2023–Present)

SSC A.Stat. Mentor (2021-2024, 2024-present) Member, ASA Accreditation Committee (2020–2025; Chair 2022–Present)

Panelist, Quantitative Careers Panel, Expanding Opportunities Workshop, WNAR Annual Conference, Whistler, BC, June 15, 2025.

SSC Working Group on the role of Statistics in Data Science and AI (2024-2025)

Member, Industrial Innovation Committee for Canadian Statistical Sciences Institute (2015–2019)

Judge for Case Study Poster Competition at the Annual Meeting of the Statistical Society of Canada, May 27, 2019.

Past-President (2014–2015), President (2013–2014), President-Elect (2012–2013), SSC Business and Industrial Statistics Section.

Member, SSC Membership Committee, (2012–2015).

Member, Book Review Editor Search Committee (*Biometrics*), (2012).

Student Paper Award Selection Committee, SSC Survey Methods Section (2011).

Chair, Chair-Elect, Past Chair, ASA Section on Statistics in the Physical and Engineering Sciences, (2008–2010).

Program Chair, ASA Section on Statistics in the Physical and Engineering Sciences, (2006) (Chair-Elect in 2005).

Member, ENAR Regional Advisory Board (2004–2006)

Program Committee, Spring Research Conference for Statistics in Industry and Technology (2004)

Member, ASA’s Committee on Outreach Education (2003–2005)

Executive Committee Member-at-Large, ASA Section on Statistical Consulting (2001–2003)

President, Kansas-Western Missouri Chapter of ASA (2003–2004)

Vice President, Kansas-Western Missouri Chapter of ASA (2002–2003)

Organized Invited Sessions for the Joint Statistical Meetings (1996, 2006, 2007), Statistical Society of Canada meetings (2012, 2014)

University

Core Member, SFU Sports Analytics Group (2018–Present)

Convocation Graduand Marshall (2024, 2019, 2017 (x2), 2016, 2015)

Steering Committee Member, Centre for Operations Research and Decision Sciences (CORDS) at SFU, (2012–2024).

Invited Presentations at SFU Surrey’s High School Math Camp (2007, 2008, 2009, 2010, 2011, 2016, 2023) and SFU Burnaby’s High School Math Camp (2010)

Master of Ceremonies for Faculty of Science heat for Three Minute Thesis Competition (March 14, 2019; March 10, 2020).

Department Chair (2014-2019)

Steering Committee Member, SFU Faculty of Science INSPIRE teaching initiative, (2012–2013).

SFU-Surrey Campus Coordinator for Department of Statistics and Actuarial Science (2006–2013)

Program Coordinator, Management and Systems Science Program, SFU Surrey (2007–2013)

Other Professional Service

Member and Biostatistician, Steering Committee and Data Safety Committee for OPT-JIA Clinical Trial (2019–Present)

External examiner for student in Nursing at Hong Kong University, January 2025.

External reviewer for program review at major Canadian universities (February 2018, September 2018, April 2024)

Statistical guidelines review for American College of Rheumatology (2024)

External reviewer for program review at Central South University, Changsha, Hunan, China (October 2019)

Interviewed by Ming Pao Saturday magazine about changes in Lotto Max game (April 2019).

Invited Presentation for SFU Aboriginal Math Camp: “I do Statistics and I’m willing to admit it!” (2018).

Invited Presentation for SFU SCI 191: “I do Statistics and I’m willing to admit it!” (2015, 2018).

Interviewed by Global-BC News and Vancouver Sun about playing the lottery around Christmas (December 2015).

Reviewed candidates for tenure and/or promotion (6)

STUDENTS SUPERVISED

Robyn Ritchie, PhD, current (co-supervised with Alex Leblanc)

Matt Berkowitz, PhD, current (co-supervised with Rachel Altman)

Jiahao Tian, Ph.D., current (co-supervised with Hugh Chipman)

Andrew Henrey, Ph.D., 2016

Chris Malone, Ph.D., 2002

Chris Bilder, Ph.D., 2000

Peiwen Cheng, MSc, current Munkhdul Norovsambuu, MSc, current

Yuqi Meng, MSc, 2023

Nikola Surjanovic, MSc, 2021

Jason Jiang, MSc, 2020

Kevin Floyd, MSc, 2019

Ran Wang, MSc, 2018

Thilini Surendra, MSc, 2017

Will Ruth, MSc, 2016

Sharla Gelfand, MSc, 2015

Nate Payne, MSc, 2014

Rachel Lipson, MSc, 2013 (Co-supervised with Rachel Altman)

Yuanyu Yang, MSc, 2013

Harsha Perera, MSc, 2011 (Co-supervised with Tim Swartz)

MyoungHo Lee, MSc, 2011

Yan Zhang, MSc, MSc, 2010

Raymond McCubrey, MS, 2006

G. Brent Johnson, MS, 2006

Wei Wei Liu, MS, 2004

Liang Fang, MS, 2004

Brandon Grossardt, MS, 2003

Jason Bargen, MS, 2003

Mollie Poehlman, MS, 2003

John House, MS, 2001

Rajesh Kaldate, MS, 2001

Ray McCollum, MS, 2000

Chris Malone, MS, 1997

Chris Bilder, MS, 1996

Peter Scherer, MS, 1995

Fabian Leiker, MS, 1995

Zihan (Andy) Wang, VPR USRA/Co-op 2021

Nikola Surjanovic, NSERC USRA, 2017 and 2018

William Ruth, USRA, 2012 (via co-op), 2014 (NSERC)

Gong (Archer) Zhang, USRA, 2013

John Yang, High School Intern, 2012–2013