

# MEGAN J. OLSON HUNT, PhD

Assistant Professor, Statistics  
University of Wisconsin – Green Bay  
Mathematics Unit

olsonhum@uwgb.edu  
<https://blog.uwgb.edu/olsonhunt>  
Office: 920-465-2249

---

**EMPLOYMENT**     **Assistant Professor, Statistics** (*tenure-track*)     *August 2014-present*  
University of Wisconsin-Green Bay, Mathematics Unit

**Secondary Mathematics and Statistics Teacher**     *2007-2008*  
Lynfield College; Auckland, New Zealand  
Onehunga High School; Auckland, New Zealand

**EDUCATION**     **Doctor of Philosophy (PhD), Biostatistics**     *April 2014*  
University of Pittsburgh, Graduate School of Public Health

**Bachelor of Science, Teaching (BST); Mathematics/  
Secondary Mathematics Education**     *May 2007*  
Winona State University  
*Summa cum laude, Mathematics Departmental Honors (Senior Thesis)*

**Bachelor of Arts (BA); Psychology, Statistics** (*minor*)     *May 2007*  
Winona State University  
*Summa cum laude*

**TEACHING**     *Mathematics Unit*  
    **Introductory Statistics** (MATH 260); 40-45 students, R-based  
    **Mathematical Statistics** (MATH 361), 10-15 students  
    **Design of Experiments** (MATH 430); 10-15 students; SAS-based  
  
*Environmental Science Unit*  
    **Environmental Statistics** (ENV SCI 336); 15-25 students; R-based  
  
*Environmental Science & Policy Master's Program*  
    **Environmental Data Analysis** (ES&P 755); 15-25 students; R-based

## **PUBLICATIONS**     **PEER-REVIEWED MANUSCRIPTS**

1. Terry, P.A., **Olson Hunt, M.J.**, Henning, R. (*In press*). Removal of phosphates and sulfates in a multi-ion system with nitrates. *Springer special edition: Applications of Adsorption and Ion Exchange Chromatography in Chemical, Pharmaceutical and Food Industries*.
2. Dalke, K., **Olson Hunt, M.J.** (2017). Mustangs and domestic horses: examining what we think we know about differences. *Humanimalia* 8:2, 46-62.

3. Karas, S., **Olson Hunt, M.J.**, Temes, B., Thiel, M., Swoverland, T., Windsor, B. (2016). The effect of direction specific thoracic spine manipulation on the cervical spine: a randomized controlled trial. *Journal of Manual and Manipulative Therapy* 1-8.
4. Luczaj, J.A., McIntire, M.J., **Olson Hunt, M.J.** (2016). Geochemical characterization of trace MVT mineralization in Paleozoic sedimentary rocks of northeastern Wisconsin, USA. *Geosciences* 6:2, 1-29.
5. Michanowicz, D.R., Shmool, J.L.C., Cambal, L., Tunno, B., Gillooly, S., **Olson Hunt, M.J.**, Tripathy, S., Naumoff Shields, K., Clougherty, J.E. (2015). A hybrid land use regression/line-source dispersion modeling for predicting intra-urban NO<sub>2</sub>. *Transportation Research Part D: Transport and the Environment* 43, 181-191.
6. Rosso, A.L., **Olson Hunt, M.J.**, Weissfeld, L., Yang, M., Brach, J., Harris, T., Newman, A.B., Satterfield, S., Studenski, S., Yaffe, K., Aizenstein, H., Rosano, C. (2014). Higher step length variability indicates lower grey matter integrity of selected regions in older adults. *Gait and Posture* 40:1, 225-230.
7. Karas, S., **Olson Hunt, M.J.** (2014). A randomized control trial to compare the immediate effects of seated thoracic manipulation and targeted supine thoracic manipulation on cervical spine flexion range of motion and pain. *Journal of Manual & Manipulative Therapy* 22:2, 108-114.
8. **Olson Hunt, M.J.**, Weissfeld, L., Boudreau, R.M., Aizenstein, H., Newman, A.B., Simonsick, E.M., Van Domelen, D.R., Thomas, F., Yaffe, K., Rosano, C. (2014). A variant of sparse partial least squares for variable selection and data exploration. *Frontiers in Neuroinformatics* 8:18, 1-9.
9. Maries, A., Mays, N., **Olson Hunt, M.J.**, Wong, K., Layton, W., Rosano, C., Boudreau, R., Marai, G.E. (2013). GRACE: a visual comparison framework for integrated spatial and non-spatial geriatric data. *IEEE Transactions on Visualization and Computer Graphics (Proceedings Scientific Visualization 2013)* 19:12, 1-10.
10. Naumoff Shields, K., Cavallari, J.M., **Olson Hunt, M.J.**, Lazo, M., Molina, M., Molina, L., Holguin, F. (2013). Traffic-related air pollution exposures and changes in heart rate variability in Mexico City: a panel study. *Environmental Health* 12:7, 1-14.

#### PEER-REVIEWED MANUSCRIPTS IN PREPARATION

1. **Olson Hunt, M.J.**, Tang, G. (*In preparation*). The effect of imputing a complex outcome on the rejection rate of Pearson's chi-square test for independence and a permutation-based correction factor.
2. **Olson Hunt, M.J.**, Tang, G. (*In preparation*). A modified EM algorithm for contingency table analysis with missing data.

#### ABSTRACTS AND PRESENTATIONS

1. Dalke, K. (*presenter*), **Olson Hunt, M.J.** (2016). Becoming the other: a case study of mustang acculturation. *Equine Cultures in Transition Conference*, Södertörn University, Stockholm, Sweden.

2. **Olson Hunt, M.J.** (2016). Statistics Done Wrong. *Natural and Applied Sciences Seminar Series, University of Wisconsin-Green Bay, Green Bay, WI.*
3. Tang, G. (presenter), **Olson Hunt, M.J.**, Zhang, Y. (2015). A modified Expectation-Maximization Algorithm for analysis of data with missing values. *National Institute of Statistical Sciences: Affiliates Workshop: Non-ignorable nonresponse, Washington, D.C.*
4. Dalke, K. (presenter), **Olson Hunt, M.J.** (2015). Mustangs and domestic horses: examining what we think we know about differences. *International Society for Anthrozoology (ISAZ) Conference, Saratoga Springs, NY.*
5. **Olson Hunt, M.J.** (presenter), Tang, G. (2014). The effect of imputing a complex outcome on the rejection rate of Pearson's chi-square test for independence and a resampling-based correction factor. *International Biometric Society (Eastern North American Region (ENAR)) Annual Meeting, Baltimore, MD.*
6. Rosso, A.L. (presenter), **Olson Hunt, M.J.**, Weissfeld, L., Yang, M., Brach, J., Harris, T., Newman, A.B., Satterfield, S., Studenski, S., Yaffe, K., Aizenstein, H., Rosano, C. (2013). Higher step length variability indicates lower grey matter integrity of selected regions in older adults. *The Gerontological Society of America 66<sup>th</sup> Annual Scientific Meeting, New Orleans, LA.*
7. Karas, S. (presenter), **Olson-Hunt, M.** (2012). A comparison of general seated and targeted supine thoracic spine thrusts and their effect on cervical pain and range of motion. *Presented at The International Federation of Orthopedic Manual Physical Therapy & The World Conference of Manual/Musculoskeletal Physiotherapy, Quebec City, Quebec, Canada. Printed in Journal of Orthopaedic & Sports Physical Therapy 42, A1-A83.*

## POSTERS

1. Michanowicz, D.R. (presenter), Carr, J.L., Cambal, L., Tunno, B., Gillooly, S., **Olson Hunt, M.J.**, Clougherty, J.E. (2013). A hybrid land use regression/AERMOD Model for Predicting PM<sub>2.5</sub>. *Environment and Health – Bridging South, North, East and West: Conference of ISEE, ISES and ISIAQ, Basel, Switzerland.*
2. Michanowicz, D.R. (presenter), Carr, J.L., Cambal, L., Tunno, B., Gillooly, S., Howell, J., **Olson Hunt, M.J.**, Shields, K., Clougherty, J.E. (2013). A hybrid land use regression/CALINE3 model for predicting NO<sub>2</sub>: a seasonal comparison. *Environment and Health – Bridging South, North, East and West: Conference of ISEE, ISES and ISIAQ, Basel, Switzerland.*
3. **Olson Hunt, M.J.** (presenter), Tang, G. (2013). The effect of imputing a complex outcome on the rejection rate of Pearson's chi-square test for independence and a resampling-based correction factor. *University of Pittsburgh, Graduate School of Public Health Dean's Day Research Poster Competition, Pittsburgh, PA.*

4. Rosano, C. (*presenter*), **Olson Hunt, M.J.**, Brach, J., Newman, A.B., Studenski, S., Verghese, J., Aizenstein, H., Weissfeld, L. (2012). Brain anatomical correlates of gait variability in high functioning older adults: repeatability across two independent studies. *The Gerontological Society of America 65<sup>th</sup> Annual Scientific Meeting*, San Diego, CA.
5. Michanowicz, D.R. (*presenter*), Carr, J.L., Cambal, L., Tunno, B., Gillooly, S., Howell, J., **Olson Hunt, M.J.**, Shields, K., Clougherty, J.E. (2012). Efficacy of line source dispersion modeling within an area of complex terrain (Pittsburgh, PA) for improving spatial concentration estimates for nitrogen dioxide (NO<sub>2</sub>) land use regression modeling. *International Society of Exposure Science 22<sup>nd</sup> Annual Meeting*, Seattle, WA. **Awarded 2<sup>nd</sup> place.**
6. **Olson Hunt, M.J.** (*presenter*), Rosano, C., Weissfeld, L. (2012). Variable selection in a multicollinear, high-dimensional setting: a variation of sparse partial least squares. *University of Pittsburgh, Graduate School of Public Health Dean's Day Research Poster Competition*, Pittsburgh, PA. **Awarded 1<sup>st</sup> place Biostatistics Departmental Award, PhD category.**

**DATA  
MANAGEMENT**

**Behavioral Medicine Research Group**, University of Pittsburgh

2013

**SERVICE**

*University of Wisconsin-Green Bay*

**pro bono statistical consulting for University of Wisconsin-Green Bay**

**faculty, graduate and undergraduate students** ( $\approx$  200 hours, 2014-present)

**Sustainability Committee** (*member*, 2017-present)

**Actuarial Science Program Development Subcommittee** (*chair*, 2016-present)

**Natural & Applied Sciences Seminar Speaker: *Statistics Done Wrong*** (2016)

**Majors Fair** (*Mathematics Unit representative*, 2016)

**Mathematics Search & Screen Committee** (*member*, 2016)

**Transfer Student Open House** (*volunteer*, 2016)

**Advisor to Mathematics majors and minors** (2016-present)

**Accreditation and Program Assessment Subcommittee** (*member*, 2015-present)

**Natural and Applied Sciences Scholarship Committee** (*member*, 2015-present)

**Wellness Committee** (*member*, 2015-2017)

**Sager Scholarship** (*judge*, 2015)

**Second-year Faculty Panel** (*participant*, 2015)

**Science Open House Resource Fair** (*Mathematics Unit representative*, 2015)

**Theses committee member** (*Environmental Science & Policy Master's Program*, 2014-present)

**Statistics Search & Screen Committee** (*member*; 2014, 2015)

**Graduate faculty member, Environmental Science & Policy Master's Program** (2014-present)

**PROFESSIONAL DEVELOPMENT**      **Center for the Advancement of Teaching and Learning Faculty Development Institute** (*University of Wisconsin-Green Bay, 2017*)  
**Educause Learning Initiative Annual Meeting: *Crafting our Future: Toward New Digital Learning Environments*** (*attended at request and under the funding of the University of Wisconsin-Green Bay's Provost's office, 2016*)  
**Bayesian Spatial Statistics short-courses** (*Medical College of South Carolina, 2016*)  
**SAS Day: Data and text mining** (*University of Wisconsin-Green Bay, 2016*)  
**Joint Mathematics Meeting** (*focus on teaching statistics; San Antonio, TX; 2015*)  
**Mathematical Association of America Annual Meeting** (*Ripon College, 2015*)  
**Faculty Development Conference: High Impact Practices for All Students** (*University of Wisconsin-Green Bay, 2015*)  
**Reflections on switching to a simulation-based curriculum** (*webinar, 2015*)  
**UW System Women and Science Program Opening Workshop for New STEM Educators** (2014, 2016)

*University of Pittsburgh, Graduate School of Public Health*  
**Certification in Teaching Fundamentals** (2014)  
**Teaching workshops** (*various; 2010, 2013*)  
**SAS Graphics Workshop** (2013)  
**Short-course in Applied Mixed-Models (SAS focus)** (2012)  
**Shale Gas Extraction Conference** (2010-2013)  
**Rachel Carson Legacy Conference** (2009)

**STATISTICAL PACKAGES, PROGRAMMING AND COMPUTING**      R, SAS, Stata, SPSS  
Designing and programming simulation studies in R, SAS  
LaTeX  
Mac, Windows, Android operating systems  
Excel, Word, PowerPoint  
Desire2Learn (D2L)/Blackboard Learning Management Systems  
Clickers (physical and cloud-/web-based)  
Tablets, smartphones, cloud/drive storage

**GRANTS**      **Grants in Aid of Research** (*University of Wisconsin-Green Bay, \$270*)  
**Teaching Enhancement Grant** (*University of Wisconsin-Green Bay, \$1000*)

## AWARDS

*University of Wisconsin-Green Bay*

**Student-nominated Teaching Award nominee** (Spring 2017)

*University of Pittsburgh, Graduate School of Public Health*

**Teaching Assistant** (*Applied Regression Analysis*, 2014)

**Graduate Student Researcher** (*Dr. Gong Tang*, 2013)

**Graduate Student Researcher** (*Dr. Tom Kamarck*, 2013)

**Teaching Assistant** (*Applied Mixed Models Analysis*, 2013)

**Teaching Assistant** (*Introduction to Statistical Theory II*, 2013)

**Teaching Assistant** (*Analysis of Cohort Studies*, 2012)

**Biostatistics Departmental Award, PhD category: First place** (*Dean's Day Poster Competition*, 2012)

**Graduate Student Researcher** (*Drs. Caterina Rosano, Lisa Weissfeld*, 2010-2012)

**Teaching Assistant** (*Summer Institute for Training in Biostatistics*, 2009-2010)

*Winona State University*

**Distinguished Student Award: Dept. of Mathematics and Statistics** (2007)

**Honors in Mathematics (Senior Thesis)** (2007)

**Lorena Jacobson Scholarship: Excellence in Mathematics Education** (*three-time recipient*, 2005-2007)

**Presidential Scholarship** (*five-time recipient*, 2002-2007)

**Dean's List** (*all semesters*, 2002-2007)

*Other*

**International Society of Exposure Science 22<sup>nd</sup> Annual Meeting poster session: Second place overall** (*collaborative; Seattle, WA; 2012*)

**Research Experience for Undergraduates (REU) in Mathematics** (*Rutgers University, New Jersey; Charles University, Prague, Czech Republic; 2006*)

**Mayo Clinic: Internship** (*Rochester, MN; 2005*)

## VOLUNTEERING AND NON- ACADEMIC AFFILIATIONS

**New Leaf Market Board of Directors** (*secretary; Green Bay, WI; 2015-present*)

**Bay Beach Wildlife Sanctuary** (*volunteer; Green Bay, WI; 2015-present*)

**Explorer's Club of Pittsburgh** (*rock climbing, camping; Pittsburgh, PA; 2011-2014*)

**Steel City Greyhounds Rescue** (*place retired racing greyhounds into adopted homes, fundraise, organize events to raise awareness; Pittsburgh, PA; 2009-2014*)

## HONORARY

**Mu Sigma Rho Statistics Honorary Society** (*Charter Member for Winona State University, 2006-present*)

## SOCITIES AND PROFESSIONAL AFFILIATIONS

**Pi Mu Epsilon Mathematics Honorary Society** (*2004-present*)

**American Statistical Association** (*2006-present*)

**International Biometric Society** (*2013-2014*)

**American Mathematical Society** (*2015-2016*)