

# Alexander J. Kappes

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## Education

**Ph.D.**, Economics, (expected) May 2021, Washington State University.  
Fields: Econometrics, Agricultural Economics.  
Dissertation: *The Economics of Livestock Health, Disease, and Production*  
Co-advisors: Dr. J. Shannon Neibergs and Dr. Thomas L. Marsh

**M.S.**, Statistics, (expected) May 2021, Washington State University.  
Master's Research Project: *Bayesian Modeling Technique for Variable Selection in Ordinal Response Data*  
Advisor: Dr. Nairanjana Dasgupta

**M.S.**, Economics, December 2017, Washington State University.  
Master's Research Project: *An Evaluation of Alfalfa Price-Quality Relationships for Making Informed Production and Marketing Decisions*  
Advisor: Dr. J. Shannon Neibergs

**B.A.**, Business Administration - Economics and Finance, May 2016, Saint Martin's University. Summa Cum Laude.

## Research Interests

Applied Statistical Learning, One Health and Development, Technology Adoption, Innovation, and Sustainability, Livestock Health and Production.

## Publications

Kappes, Alex J., Marsh, Thomas L. (2020) *Livestock Health Effects on Cost of Nutrient Consumption in Western Kenya*. Front. Vet. Sci. 7:547348. doi: 10.3389/fvets.2020.547348.

Kappes, Alex J., Neibergs, J. Shannon. (2020) *Washington State Livestock Identification: Changes to Current Laws and the Future of Traceability*. Washington Agribusiness Status and Outlook.

## Work Under Review

## Working Papers

Kappes, Alex J., Neibergs, J. Shannon. *Using Genetic Marker Selection to Reduce Asymmetric Information in the U.S. Beef Supply Chain*.

Kappes, Alex J., Marsh, Thomas L. *Technical Efficiency of Food Intake Frequency on Childhood Stunting in Western Kenya*.

Kappes, Alex J., Marsh, Thomas L. *An Evaluation of Livestock Health Impacts on Production Inefficiency in Rural Kenya.*

Kappes, Alex J., Neibergs, J. Shannon. *Surveillance of Feedlot Bovine Respiratory Disease with Genetic Marker Selection Implications.*

Kappes, Alex J., Neibergs, J. Shannon. *Wealth and Environmental Incentives for Anaerobic Digester Technology in Dairies.*

Kappes, Alex J., Wang, Yuan. *Bayesian Modeling Technique for Variable Selection in Ordinal Response Data.*

Kappes, Alex J. *Expectation-Maximization Extension to Bayesian Regression Tree Treatment Effect Estimation.*

## **Work In Progress**

Kappes, Alex J., Neibergs, J. Shannon. *Producer Benefits of Dairy Nutrient Waste Recycling Technology Adoption.* Web application development. [https://github.com/AJKappes/NWR\\_app](https://github.com/AJKappes/NWR_app)

## **Research Experience**

Agricultural Economics  
Fall 2016 to present.  
School of Economic Sciences, Washington State University.  
Dr. J. Shannon Neibergs

Global Health and Development  
Fall 2017 to present.  
School of Economic Sciences, Washington State University.  
Dr. Thomas L. Marsh

## **Teaching Experience**

Reproducible Research Techniques with R Workshop, Rmarkdown Instructor. Washington State University, March 2021.

Reproducible Research Techniques with R Workshop, Rmarkdown Instructor. Washington State University, November 2020.

Data Carpentry Workshop Intro to R and Starting with Data in R Instructor. Washington State University, October 2019. <https://datacarpentry.org>

Instructor, EconS 101 Fundamentals of Microeconomics. Summer 2019. School of Economic Sciences, Washington State University.

Software Carpentry Workshop Git Instructor. Washington State University, April 2019. <https://software-carpentry.org>

## **Presentations**

*Washington State Livestock Identification: Changes to Current Laws and the Future of Traceability.* 2020 WAEA/WEC Annual Meeting. Virtual conference due to Covid-19. Selected presentation.

*Using Genetic Marker Selection to Reduce Asymmetric Information in the U.S. Beef Supply Chain.* 2019 ISESSAH Annual Meeting. Atlanta, GA. Selected presentation.

*Technical Efficiency of Food Intake Frequency on Childhood Stunting in Western Kenya.* 2019 AAEE Annual Meeting. Atlanta, GA. Selected presentation.

*Livestock Health Effects on Cost of Nutrient Consumption in Western Kenya.* 2019 ISESSAH Annual Meeting. Atlanta, GA. Poster.

*Using Genetic Marker Selection to Reduce Asymmetric Information in the U.S. Beef Supply Chain.* University of Idaho Agricultural Economics and Rural Sociology, April 2019. Seminar series.

*An Evaluation of Alfalfa Price-Quality Relationships for Making Informed Production and Marketing Decisions.* 2017 WAEA/WEC Annual Meeting. Lake Tahoe, NV. Selected presentation.

## **Professional Service**

Planning Committee member - Extension Risk Management Education National Conference. Virtual platform, 2020.

Selected presentation moderator, 2020 WAEA/WEC annual meeting.

Developed and finalized new graduate course syllabi for Applied Machine Learning for Economists and Big Data Management and Processing. Courses approved and will be offered beginning 2021.

Invited instructor - Software Carpentry Workshop, Git lesson, 13-14 April 2020. Workshop cancelled due to COVID-19.

Planning Committee member - Extension Risk Management Education National Conference. Denver, CO. 1-2 April 2020. Conference cancelled due to COVID-19.

Software Carpentry Workshop R and Python Helper. Washington State University. 8-9 April 2019. <https://software-carpentry.org>

Edited Arredondo-Espinola, A., Muñoz-Garcia, F., *Intermediate Microeconomic Theory: Tools and Step-by-Step Examples*, Chapter 16 Contract Theory and Chapter 17 Externalities and Public Goods (content, problems, and solutions), MIT Press, 2019.

**Professional  
Affiliations**

Agricultural and Applied Economics Association (AAEA), Western Agricultural Economics Association (WAEA). International Society for Economics and Social Sciences of Animal Health (ISESSAH)

**Skills**

Technical: Python, R, L<sup>A</sup>T<sub>E</sub>X  
Econometric/data science: Maximum likelihood to generalized method of moments and generalized linear model estimation, Bayesian modeling, classification and clustering, linear programming, panel data analysis

**References**

**Dr. J. Shannon Neibergs**  
(Committee Co-chair)  
Professor, WEC Director  
School of Economic Sciences  
Washington State University  
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**Dr. Thomas L. Marsh**  
(Committee Co-chair)  
Distinguished Professor  
School of Economic Sciences  
Washington State University  
Pullman, WA 99164  
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**Dr. Shanthi Manian**  
(Committee Member)  
Assistant Professor  
School of Economic Sciences  
Allen School for Global Animal Health  
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