

Sierra S. Howry
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Summary of Qualifications:

- Assistant Professor of Agricultural Economics at Angelo State University
- Over ten years of teaching experience in agricultural economics, economics, mathematics, and statistics.
- Eight professional presentations.

Education:

PhD Agricultural Economics Oklahoma State University, Stillwater, Oklahoma: 2008

MS Economics Oklahoma State University, Stillwater, Oklahoma: 2001

BS Mathematics East Central University, Ada, Oklahoma: 1997

Dissertation Title:

“Economic Analysis of Management Practices to Reduce Phosphorus Loading to Eucha Spavinaw Lakes”

Research and Teaching Experience:

Angelo State University, San Angelo, Texas

August 2008- Present

Assistant Professor in the Department of Agriculture

- Member of the Graduate Faculty.
- Developed a quiz bowl team at attended that SAEA and AAEEA conferences in 2008 and 2009, respectively.

Oklahoma State University, Stillwater, Oklahoma

January 2005- July 2008

Graduate Research Assistant in the Department of Agricultural Economics

- Utilized a Soil & Water Assessment Tool (SWAT) model, evaluating the phosphorus loading in the Eucha-Spavinaw watershed.
- Utilized GAMS to optimize a mathematical model for obtaining objective value of consumer income given a set of economical and environmental constraint for the Eucha-Spavinaw watershed.
- Assisted in the development of a mathematical model consisting of a transportation network to determine an appropriate location of poultry litter distribution.
- Evaluated the economic effects of applying alum to poultry litter on the poultry industry.
- Evaluated different management practices to reduce phosphorus loading in lakes.

Northern Oklahoma College, Stillwater, Oklahoma

August 2006- May 2008

Adjunct Professor in the Department of Mathematics

- Prepared for and taught Concepts of Algebra, Intermediate Algebra, and Introduction to Statistics classes, with class size ranging from 20-50 students.
- Algebra classes were computer oriented with corresponding labs.

University of Central Oklahoma, Edmond, Oklahoma

January 2006

Adjunct Professor in the Department of Economics

- Prepared for and taught Introduction to Microeconomics classes, with class size ranging from 35-45 students.
- Introduced students to the four major market structures.
- Discussed the labor market and public sector.

Oklahoma State University, Stillwater, Oklahoma

January 2002 – January 2005

Graduate Assistant in the Department of Economics

- Prepared for and taught Introduction to Microeconomics classes, with class size ranging from 35-85 students.
- Introduced students to the four major market structures.
- Discussed the labor market and public sector.

Oklahoma Criminal Justice Resource Center, Oklahoma City, Oklahoma

January 2001- December 2005

Geographic Information System (GIS) Research Associate

- Input and analyzed firearm data for Project Safe Neighborhood (PSN) grant.
- Performed spatial analysis of firearm crime locations for PSN grant.

United States Bureau of Census, Washington, DC

Summer 2000

Mathematical Statistician Summer Intern (GS-09)

- Conducted internet research on state population data for 1990-1999.
- Compared Census Bureau's longitudinal state-based population estimates (1990-1999) to estimates developed by individual state agencies.
- Wrote a report and created a national map at the state level relating to the research conducted.
- Designed and utilized a GIS approach for a team project, which included database design, spatial analysis, and cartographic processing, dealing with the top ten metropolitan areas with the highest private school enrollment.
- Prepared and presented a team presentation utilizing Power Point and Excel.
- Developed an ArcView map representing the top ten metropolitan areas with the highest privates' school enrollment at the state level.

Summer 1999

Mathematical Statistician Summer Intern (GS-07)

- Developed and analyzed SAS programs and output utilizing the planning database (PDB), which indicated hard-to-enumerate areas within a given state for the 2000 census.
- Integrated SAS statistical output with a GIS (ArcView) to produce a series of geographically related data sets that were used to generate display maps of potentially hard-to-enumerate areas in the upcoming 2000 census. Maps were used to target hard-to-enumerate populations / areas for enumerators. Used geographic reference files (Tiger Line) and merged them with the PDB.
- GIS approach required production of documentation for output repeatability; therefore I developed step-by-step methodology documentation on how to use ArcView mapping software and served in a consultation capacity, demonstrating the use and practicality of a GIS to maintain, process, and display hard-to-enumerate areas
- These maps were used in a presentation by the Census Bureau's Associate Director for Statistical Standards and Methodology.

Oklahoma State University, Stillwater, Oklahoma

January 1998 – May 2000

Graduate Assistant in the Department of Statistics

- Used logistic regression to model the probability of success for an inmate in a drug and alcohol rehabilitation program at Cimarron Correctional Facility. SAS was utilized to analyze survey data obtained from the prisoners.
- Prepared for and taught Elementary Statistics classes; designed and graded exams.
- Instructed students on how to use the SAS statistical package during statistical labs.
- Facilitated eight discussions for Business Statistic class.

US EPA National Risk Management Research Laboratory, Ada, Oklahoma

April 1996 - December 1997

Environmental Research Assistant Program (ERAP) through East Central University

- Assisted in the development of the EPA document “Estimation of Infiltration Rate in the Vadose Zone: Compilation of Simple Mathematical Models.”
- Created a website to access the information from the water infiltration document.
- Utilized MapInfo and Surfer as statistical surface generation packages that created contaminate concentration maps.

Summer 1996

Summer Internship for McNair’s Program at East Central University, Ada, Oklahoma

- Researched the Explicit Green-Ampt water infiltration model.
- Designed and produced the report “A Study of Sensitivity Analysis for the Evaluation of the Explicit Green-Ampt Model”.

Teaching Evaluations from the Department of Economics:*Overall Instructor Rating using 4.00 scale:*

Spring 2005: 3.81, 3.89

Fall 2004: 3.75, 3.77

Summer 2004: 3.68

Fall 2003: 3.75

Fall 2002: 3.60

Professional Papers:

Howry, S. 2008. Economic Analysis to Reduce Phosphorus Loading in Eucha Spavinaw Lakes. Ph.D. Dissertation, Oklahoma State University.

Professional Presentations:

Howry, S., A. Stoecker, D. Storm, and M. White. 2008. “Spreadsheet Method for Finding Least Cost BMPs for Abatement at the Watershed Level: Illustration for the Eucha-Spavinaw Watershed.” Selected Paper, Annual Western Agricultural Economics Associational Meetings, Big Sky, Montana.

Howry, S., A. Stoecker, D. Storm, and M. White. 2008. “Economic Analysis of Management Practices to Reduce Phosphorus Load to Lakes Eucha and Spavinaw.” Selected Paper, Annual Southern Agricultural Economics Associational Meetings, Dallas, Texas.

Howry, S. 2007. “Economic Analysis of Management Practices to Reduce Phosphorus Loading in the Eucha Spavinaw Lakes.” 16th Annual Oklahoma Clean Lakes and Watersheds Association Annual Symposium, Tahlequah, Oklahoma.

Howry, S., B. Prado, R. Pruitt. 2005. “eMerge Interactive, Inc.” Graduate Case Study Presentation at the AAES National Conference, Providence Rhode Island.

Howry, S. 2000. “Top Ten Metropolitan Areas With The Highest Private School Enrollment”. Census Bureau’s Summer Intern Team Presentations, Washington, DC.

—. 1997. “A Study of Sensitivity Analysis for the Evaluation of the Explicit Green-Ampt Model.” First Annual East Central University Research Conference, Ada, Oklahoma.

- . 1997. “A Study of Sensitivity Analysis for the Evaluation of the Explicit Green-Ampt Model.” Second Annual Rocky Mountain McNair Research Symposium & Graduate/Education Conference, Ft. Collins, Colorado.
- . 1996. “A Study of Sensitivity Analysis for the Evaluation of the Explicit Green-Ampt Model.” Fifth Annual National Ronald E. McNair Student Conference, Delavan, Wisconsin.

Poster Presentations:

- Howry, S. 1999. “A Study of Sensitivity Analysis for the Evaluation of the Explicit Green-Ampt Model.” Tenth.” Annual Graduate Student Research Symposium Poster Display, Stillwater, Oklahoma.
- . 1996. “A Study of Sensitivity Analysis for the Evaluation of the Explicit Green-Ampt Model.” East Central University Oklahoma McNair Scholars Poster Display, Ada, Oklahoma.

Awards:

- Third Place in the Graduate Case Study at the AAEA National Conference, Providence, Rhode Island, 2005
- Outstanding Graduate Teaching Assistant in the Department of Economics, 2004

Skills:

- ArcView 3.2 as primary GIS software
- SAS, S-Plus, SPSS, and MathCad as statistical and mathematical modeling software
- Academic cartographic training in presentation of quantitative data
- Vocational training in GIS with concentration in socioeconomic data

Professional Organization Membership:

- Member, American Agricultural Economics Association, 2008 - Present
- Member, Southern Agricultural Economics Association, 2007-Present
- Member, Western Agricultural Economics Association, 2008- Present
- Member, American Alliance for Health, Physical Education, Recreation and Dance (AAHPERD), 1995-1997
- Member, Oklahoma Association for Health, Physical Education, Recreation and Dance (OAHPERD), 1995-1997

Student Academic Organization Membership and Activities:

- President, Graduate Student Association for Agricultural Economics at OSU, 2006-2007
- Social Chair, Graduate Student Association for Agricultural Economics at OSU, 2005-2006
- President, Statistic Club at OSU, Stillwater, Oklahoma, 1998-1999
- Member, National and Local Math Club at ECU, Ada, Oklahoma, 1995
- Member, McNair Scholars Program at ECU, Ada, Oklahoma, 1995-1997
- State Student Representative for OAHPERD at Southern District AAHPERD Student Leadership Conference, 1996
- Member, Physical Education Major and Minor Club at ECU, Ada, Oklahoma, 1995-1997
- FCA Huddle Leader at a Summer Golf Camp, 1995

Community Involvement:

- President, Social Order of the Beauceant, San Angelo, Texas, 2009
- Member, Social Order of the Beauceant, Stillwater, Oklahoma, 2005-Present
- Lady Elks, President, Vice President, Secretary, Stillwater, Oklahoma, 2002-2007
- Member, Order of Eastern Star, Stillwater, Oklahoma, 1995-Present
- Private Golf Instructor at Pecan Valley Driving Range, Ada, Oklahoma, 1993-1998