

## SARAH M. NUSSER

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### PROFESSIONAL POSITIONS

- 2003-present Professor, Department of Statistics, Iowa State University
- 1992-present Affiliated with Center for Survey Statistics and Methodology, Iowa State University
- 2003-present Faculty Member, Human Computer Interaction Graduate Program, Iowa State University
- 1994-present Faculty Member, Ecology and Evolutionary Biology Graduate Program, Iowa State University
- Summer 2012 Summer at Census Research Fellow, US Census Bureau (2 weeks)
- Fall 2011 Mathematical Statistician, National Agricultural Statistics Service, USDA
- 2007-2010 Director, Center for Survey Statistics and Methodology, Iowa State University
- 1992-2004 Director, Center for Survey Statistics and Methodology, Iowa State University (formerly Professor-in-charge, Statistical Laboratory Survey Section)
- 1997-2003 Associate Professor, Department of Statistics, Iowa State University
- 2000-2001 ASA/NSF/BLS Senior Research Fellow, Bureau of Labor Statistics
- 1992-1997 Assistant Professor, Department of Statistics, Iowa State University
- 1990-1992 Statistician, The Procter & Gamble Company, Cincinnati, OH

### EDUCATION

- 1990 PhD in Statistics, Iowa State University
- 1987 MS in Statistics, Iowa State University
- 1983 MS in Botany, North Carolina State University
- 1980 BS in Botany, University of Wisconsin-Madison

### HONORS

- Elected Member, International Statistical Institute, 2012
- Board of Regents Award for Faculty Excellence, Iowa State University, 2010
- Distinguished Achievement Award, Section on Statistics and the Environment, American Statistical Association, 2007
- Fellow, American Statistical Association, 2003

**FUNDING**

1. Statistical and survey methodological support for the Conservation Effects Assessment Project, USDA Natural Resources Conservation Service. PI: S. M. Nusser, Co-PIs: J-K. Kim, C. L. Yu, Z. Zhu, E. Berg. 9/18/13 – 9/17/15, \$300,000.
2. Statistical and survey methods support for the BLM-Managed Lands Survey program, DOI Bureau of Land Management. PI: S. M. Nusser, Co-PIs: J-K. Kim, C. L. Yu, Z. Zhu, E. Berg. 9/15/13 – 9/30/18, \$350,000.
3. New approaches for area frame development, area sample design, and geospatial data collection, USDA National Agricultural Statistics Service. PI: S. M. Nusser, Co-PIs: J-K. Kim, C. L. Yu, Z. Zhu. 3/1/2011-9/30/2015, \$962,800.
4. Statistical and survey methods support for the National Resources Inventory, USDA Natural Resources Conservation Service. PI: S. M. Nusser, Co-PIs: J-K. Kim, C. L. Yu, Z. Zhu, E. Berg.
 

7/1/13 – 6/30/14	2,550,000		
7/1/12 – 6/30/13	3,100,000	2/15/02 - 12/31/02	1,500,000
7/1/11 – 6/30/12	2,550,000	10/1/00 - 2/28/02	1,700,000
5/1/10 – 7/31/11	2,550,000	10/1/99 - 9/30/00	1,100,000
3/1/09 – 4/30/10	2,550,000	10/1/98 - 9/30/99	1,090,000
2/1/08 – 3/31/09	2,450,000	10/1/97 - 9/30/98	978,000
1/1/07 – 3/31/08	2,450,000	10/1/96 - 9/30/97	700,000
1/1/06 – 1/31/07	2,236,500	10/1/95 - 9/30/96	800,000
9/1/04 – 12/31/05	2,688,887	10/1/94 - 9/30/95	650,000
9/24/03 – 1/23/05	2,180,000	10/1/93 - 9/30/94	651,000
1/1/03 – 9/23/03	1,700,000	10/1/92 - 9/30/93	686,000
5. Developing integrated grazingland surveys, USDA Natural Resources Conservation Service. PI: S. M. Nusser, Co-PI: Cindy Yu. 7/1/12 – 6/30/13, \$150,000.
6. New approaches for area frame development, area sample design, and geospatial data collection, USDA National Agricultural Statistics Service. PI: S. M. Nusser, Co-PIs: J-K. Kim, C. L. Yu, Z. Zhu. 9/1/2010-9/1/2012, \$50,000.
7. Effects of community assets on rural business development, USDA Economic Research Service. PI: C. Yu, Co-PIs: S. Nusser, S. Huck. 9/29/2010-9/30/2013. \$680,873.
8. Stress, financial management, and childhood obesity, US Department of Agriculture (subcontract from U Illinois at Urbana-Champaign). PI: S. Nusser, Co-PIs: S. Garasky, M. Larsen. 1/1/2009 – 1/14/2013, \$349,370.
9. Accommodating individual differences in software designed for location-based survey tasks, National Science Foundation. PI: S. Nusser, Co-PI: L. Miller. 10/1/2008-7/31/2012, \$230,189 (plus \$8,000 Research Experience for Undergraduates Award).
10. A measurement error approach to estimating usual daily physical activity distributions, National Institutes of Health. PI: G. Welk. Co-PIs: S. Nusser, A. Carriquiry. 9/15/2008-5/31/2012, \$2,468,635.

11. Accommodating individual differences in map-based field survey software on handheld computers, U.S. Census Bureau. PI: S. M. Nusser, Co-PI: L. L. Miller, M. L. Rusch. 9/1/07 – 12/31/08, \$24,991.
12. A non-parametric approach to population size estimation for multiple system capture-recapture surveys, National Science Foundation. PI: S. X. Chen, Co-PIs: J. D. Opsomer, S. M. Nusser. 9/1/05 – 8/31/08, \$299,495.
13. The impact of biorenewable technologies on communities across Iowa, Iowa State University College of Human Sciences. PI: C. Gunderson, Co-PIs: C. Fletcher, M. D. Larsen, S.M. Nusser. 2/01/07 – 1/31/08, \$15,000; 7/01/07-6/30/08, \$22,000.
14. Individual variability and spousal synchronicity in cognition, affect, and health: conducting multiple daily assessments, Iowa State University College of Human Sciences. PI: J. Margrett, Co-PIs: G. Welk, S.M. Nusser. 12/15/06 – 7/15/07, \$9,978.
15. The development of a cognitive model to simulate lister behavior and decision-making for map-based tasks specific to address canvassing, U.S. Census Bureau. PI: S. M. Nusser, Co-PI: L. L. Miller, M. L. Rusch. 8/1/05 – 12/15/06, \$24,990.
16. Geospatial knowledge in complex mobile field settings, National Science Foundation. PI: S. M. Nusser, Co-PIs: L. M. Miller, J. H. Oliver, M. F. Goodchild, K. Clarke, M. Turk, M. Höllerer. 10/1/03-9/30/06, \$225,000.
17. Strategies for improving abilities to use digital maps, Bureau of Labor Statistics. PI: S. M. Nusser. 9/02-8/04, \$25,000.
18. Enabling the creation and use of GeoGrids for next generation geospatial information, National Science Foundation (subcontract from U. Maine). PI: S. M. Nusser; Co-PIs: H. S. Stern, L. M. Miller. 9/15/01-9/14/05, \$450,000.
19. Collecting and using geospatial data in the field: an extensible framework and testbed, National Science Foundation. PI: S. M. Nusser; Co-PIs: L. M. Miller, M. F. Goodchild, K. Clarke. 7/01/00-12/31/04, \$1,670,900.
20. Mobile computing, BAE Systems. PI: S. M. Nusser; Co-PIs: L. M. Miller, M. F. Goodchild, K. Clarke. 7/01/00-12/31/04, \$65,000.
21. Soils databases and statistical methods for soil surveys, USDA Natural Resources Conservation Service. PI: S. M. Nusser, Co-PIs: W. A. Fuller.
 

10/1/00 - 9/30/03	593,000	10/1/95 - 9/30/96	644,570
10/1/99 - 9/30/00	338,000	10/1/94 - 9/30/95	620,960
10/1/98 - 9/30/99	600,000	10/1/93 - 9/30/94	423,640
10/1/97 - 9/30/98	664,000	10/1/92 - 9/30/93	564,375
22. Integrating and characterizing digital location data for computer-assisted survey information collection, Census Bureau. PI: S. M. Nusser. 8/15/00-3/31/02, \$26,350.
23. Using digital geospatial data in computer-assisted survey information collection, National Science Foundation, American Statistical Association, Bureau of Labor Statistics Senior Research Fellowship. PI: S. M. Nusser. 8/15/00-3/31/02, \$43,376.

24. Improving measurement of food security and hunger, USDA Economic Research Service. PI: H. H. Jensen; Co-PI: S. M. Nusser, J. D. Opsomer. 9/1/98-9/30/02, \$200,000.
25. At the interface of times series, measurement errors, and survey sampling: a conference in celebration of Wayne A. Fuller's 70<sup>th</sup> birthday, National Science Foundation. S. M. Nusser, Y. Amemiya, A. L. Carriquiry. 3/01/01-12/31/01, \$19,400.
26. Survey design considerations for evaluating welfare programs, USDA Economic Research Service and Dept. of Health & Human Services. Co-PIs: S. M. Nusser, C. N. Fletcher, H. H. Jensen. 9/99-9/01, \$170,000.
27. Development of sampling methodologies to support the USDA nutrient database for standard reference, USDA Agricultural Research Service. PI: S. M. Nusser; Co-PI: A. L. Carriquiry. 6/15/98-6/14/01, \$31,650.
28. What is happening to food stamp exiters: An examination of their employment and other experiences using administrative and survey data. Co-PIs: H. H. Jensen, S. Garasky, S. M. Nusser. 10/1/98-9/30/00, \$400,000.
29. A framework for the dissemination, use and storage of geospatial images for field data collection, National Science Foundation. PI: S. M. Nusser; Co-PIs: P. M. Siegel, G. F. Covert, M. Egenhofer. 8/1/99-7/31/00, \$40,000.
30. Feasibility study for state-level welfare surveys, Census Bureau. PI: S. M. Nusser; Co-PI: C. N. Fletcher. 5/15/98-5/14/99, \$85,000.
31. Methods development for natural resource surveys, Natural Resources Inventory and Analysis Institute, USDA Natural Resources Conservation Service. PI: S. M. Nusser; Co-PIs: W. A. Fuller, F. J. Breidt, J. D. Opsomer. 10/1/95 – 9/30/99, \$721,780.
32. Watershed assessment studies, Watershed Sciences and Soil Quality Institutes, USDA Natural Resources Conservation Service. Co-PIs: S. M. Nusser and J. D. Opsomer. 4/1/97-9/30/98, \$93,000.
33. Estimating usual intake and biochemical measurement distributions for NHANES III, National Center for Health Statistics. PI: A. L. Carriquiry, Co-PI: S. M. Nusser. 10/1/96 – 9/30/98, \$73,320.
34. Statistical methods for dietary assessment, USDA Agricultural Research Service. PI: S. R. Johnson, Co-PIs: W. A. Fuller, H. H. Jensen, A. L. Carriquiry, S. M. Nusser. 10/1/92 – 9/30/96, \$786,931.
35. Statistical review of Minnesota's Fish Contaminant Monitoring Program, State of Minnesota. PI: M. S. Kaiser, Co-PIs: S. M. Nusser, F. J. Breidt. 7/1/94-12/31/95, \$79,350.

#### **MANUSCRIPTS IN PREPARATION**

1. Nusser, S. M., F. J. Breidt, J. D. Opsomer, J. W. Karl, J. Herrick, J. Goebel. Multi-phase designs for including intensive measurements in environmental surveys. In preparation for *Ecological Applications*.

2. Beyler, N. K., S. M. Nusser, W. A. Fuller, A. L. Carriquiry, G. J. Welk, D. Osthus, B. Stanfill. A method for estimating usual daily energy expenditure from a probability sample with heterogeneous subgroups. In preparation for *Statistics in Medicine*.
3. Rusch, M. L., L. L. Miller, S. M. Nusser. Spatial cognition abilities in relation to user performance with a simple graphical interface. Under revision for *Human Factors*.
4. Welk, G.J., Y. Kim, B. Stanfill, D.A. Osthus, A.M. Calabro, S.M. Nusser, A.L. Carriquiry. Validity of a 24 hour physical activity recall instrument: the Physical Activity Measurement Survey (PAMS) Project. Under revision for *Medicine & Science in Sports & Exercise*.

## REFEREED PUBLICATIONS

1. Batinov, G., K. Whitney, L. Miller, S. Nusser, B. Stanfill, and K. T. Ashenfelter. 2013. Evaluating the impact of spatial ability in virtual and real world environments. *Sixth International Conference on Advances in Computer-Human Interactions (ACHI 2013)*. Nice, France. February 24 – February 24-28, 2013. p. 274-279.
2. S.M. Nusser. 2013. National Resources Inventory (NRI), US. *Encyclopedia of Environmetrics*, A.-H. El-Shaarawi and W. Piegorisch (eds), John Wiley & Sons Ltd: Chichester, UK. DOI: 10.1002/9780470057339.van004.pub2. Published online 1/15/2013.
3. S.M. Nusser and S. Zimmer. 2013. Sampling agricultural resources. *Encyclopedia of Environmetrics*, A.-H. El-Shaarawi and W. Piegorisch (eds), John Wiley & Sons Ltd: Chichester, UK. DOI: 10.1002/9780470057339.vnn032. Published online 1/15/2013.
4. Karl, J. W., M. C. Duniway, S. M. Nusser, J. D. Opsomer, R. S. Unnasch. 2012. Using very-large scale aerial (VLSA) imagery for rangeland monitoring and assessment: some statistical considerations. *Rangeland Ecology and Management*. 65(4):330-339.
5. Rusch, M. L., S. M. Nusser, L. L. Miller, G. I. Batinov, K. C. Whitney. 2012. Spatial ability ad map-based software applications. *The 5<sup>th</sup> International Conference on Advances in Computer-Human Interactions*. Valencia, Spain. pp. 35-40.
6. Nusser, S. M., Beyler, N. K., Fuller, W. A., Carrquiry, A. L., Welk, G. W., King, B. M. N. 2012. Modeling errors in physical activity recall data. *Journal of Physical Activity and Health*, 9(Supp 1):S56-S67.
7. Whitney, K. C., G. I. Batinov, L.L. Miller, S. M. Nusser, K. T. Ashenfelter. 2011. Exploring a map survey sensitivity to cognitive ability. *Proceedings of the 4th International Conference on Advances in Computer-Human Interactions*. Gosier, Guadeloupe, France. p. 63-68.
8. Batinov, G.I, Whitney, K.C., Nusser, S.M., Miller, L.L., Ashenfelter, K.T. 2011. Decision models for an address verification field task. *Proceedings of the 26th ISCA Conference on Computers and Their Applications*. New Orleans, LA. p. 9-14.
9. Tucker J. M., G. J. Welk, S. Nusser, D. A. Dzewaltowski, and N. Beyler. 2011. Estimating minutes of physical activity from PDPAR: validation of a prediction equation. *Journal of Physical Activity and Health*, 8:71-78.
10. Whitney, K.C., Batinov, G.I., Nusser, S.M., Miller, L.L., Ashenfelter, K.T. 2010. Understanding the user's approach toward location-based field tasks. *Proceedings of the 23rd ISCA Conference on*

- Computer Applications in Industry and Engineering*. Las Vegas, NV. p. 156-161.
11. Nusser, S. M. and C. House. 2009. Sampling, data collection and inference in agricultural surveys. In *Handbook of Statistics: Modern Sample Surveys, Volume 1: Design, Methods and Applications*, D. Pfefferman (editor). Elsevier. pp. 471-486.
  12. Ihmels, M.A., Welk, G.J., Eisenmann, J.C., and Nusser, S. M. 2009. Prediction of BMI change in young children with the Family Nutrition and Physical Activity (FNPA) screening tool. *Annals of Behavioral Medicine*, 38(1):60-68.
  13. Nusser, S. M. and M.D. Larsen. 2009. Sample surveys. In *e-Source: Behavioral and Social Science Research Interactive Textbook*, McKinlay J.B. and L.D. Marceau (editors). Office of Behavioral and Social Science Research, National Institutes of Health.  
<http://www.esourceresearch.org>
  14. Calabro M.A., G.J. Welk, N. Beyler, A.L. Carriquiry, S.M. Nusser, and C.E. Matthews. 2009. Validation of a computerized 24 hour physical activity recall (24hPAR) instrument with pattern recognition activity monitors. *Journal of Physical Activity and Health*, 6(2):211-20.
  15. Ihmels, M.A., Welk, G.J., Eisenmann, J.C., and Nusser, S. M. 2009. Development and preliminary validation of a Family Nutrition and Physical Activity (FNPA) screening tool. *International Journal of Behavioral Nutrition and Physical Activity*, 6:14. Available at: <http://www.ijbnpa.org/content/6/1/14>.
  16. Nusser, S. M., W. R. Clark, D. L. Otis, and L. Huang. 2008. Sampling considerations for surveillance in wildlife populations. *Journal of Wildlife Management* 72(1):52-60.
  17. Nusser, S. M. 2007. Using geospatial information resources in sample surveys. *Journal of Official Statistics*, 23:285-289. (Discussion for Morris Hansen Lecture)
  18. Singer, J. W., S. M. Nusser, and C. J. Alf. 2007. Are cover crops being used in the Central Western US Corn Belt? *Journal of the Soil and Water Conservation Society*. 62(5):353-358.
  19. Miller, L., H. Ming, H.-J. Tsai, B. Wemhoff, and S. Nusser. 2007. Supporting geographic data in the mobile computing environment. *Proceedings of the 20th ISCA Conference on Parallel and Distributed Computing Systems*. Las Vegas, NV. p. 56-61.
  20. Nusser, S. M. 2006. Review of *Survey Methodology*, by R. M. Groves, F. J. Fowler, Jr., M. P. Couper, J. M. Lepkowski, E. Singer, and R. Tourangeau, Wiley. *Journal of the American Statistical Association*. 101:1310-1311.
  21. Beidler, K. M., J. K. Iles, S. M. Nusser, and A. M. VanDerZanden. 2006. Assessing the preparedness of postsecondary graduates entering the landscape contracting industry. *HortTechnology* 16:312-317.
  22. Tsai, H. J., L. L. Miller, H. Ming, and S. Nusser. 2006. Combining Spatial Data from Multiple Data Sources, *Proceedings of the ISCA 19th International Conference on Computer Applications in Industry and Engineering (CAINE-2006)*, Las Vegas, NV. pp. 89-94.
  23. Nusser, S. M., S. S. Intille, and R. Maitra. 2006. Emerging technologies and next-generation intensive longitudinal data collection. In T. A. Walls and J. S. Schafer (editors), *Models for Intensive Longitudinal Data*. New York: Oxford University Press. pp. 254-278.

24. Nusser, S. M., W. R. Clark, J. Wang, and T. R. Bogenschutz. 2004. Pheasant populations associated with land use in Iowa during the Conservation Reserve Program. *Journal of Agricultural, Biological and Environmental Statistics*. 9(3):1-17.
25. Phillips, M. L., W. R. Clark, S. M. Nusser, M. A. Sovada, and R. J. Greenwood. 2004. Analysis of predator movement in prairie landscapes with contrasting grassland composition. *Journal of Mammalogy*. 82(2):187-195.
26. Nusser, S. M. and E. E. Klaas. 2003. Survey methods for assessing land cover map accuracy. *Environmental and Ecological Statistics*. 10(3):309-331.
27. Nusser, S. M., L. L. Miller, K. Clarke, and M. F. Goodchild. 2003. Geospatial IT for mobile field data collection. *Communications of the ACM (Association for Computing Machinery)*. 46:64-65.
28. Carriquiry, A. L. and S. M. Nusser. 2002. Comment on Patterson, B. H., C. M. Dayton, B. I. Graubard, Latent class analysis of complex sample survey data: application to dietary data. *Journal of the American Statistical Association*. 97:729-731.
29. Doebbling, B. N., M. F. Jones, R. F. Woolson, D. B. Hall, W. R. Clarke, T. Snyders-Crumley, D. H. Barrett, K. H. Falter, J. C. Torner, L. F. Burmeister, J. A. Merchant, S. M. Nusser, D. G. Anderson, D. A. Schwartz. 2002. Methodological issues in a population-based health survey of Gulf War veterans. *Journal of Clinical Epidemiology* 55(5): 477-487.
30. Miller, L. L., N. Sathe, M. Hua, D. Sekaran, S. Nusser and P. Zhao. 2001. An infrastructure for delivering geospatial data to field users. *Proceedings of the IASTED International Conference on Parallel and Distributed Computing and Systems*. p. 378-382.
31. Naugle, D. E., K. F. Higgins, M. E. Estey, R. R. Johnson, and S. M. Nusser. 2000. Local and landscape-level factors influencing black tern habitat suitability. *Journal of Wildlife Management* 64:253-260.
32. Stehman, S. V., R. L. Czaplewski, S. M. Nusser, L. Yang, and Z. Zhu. 2000. Combining accuracy assessment of land-cover maps with environmental programs. *Environmental Monitoring and Assessment* 64:115-126.
33. Opsomer, J. D. and S.M. Nusser. 1999. Sample designs for watershed assessment. *Journal of Agricultural, Biological and Environmental Statistics* 4:429-442.
34. Naugle, D. E., K. F. Higgins, S. M. Nusser, and W. C. Johnson. 1999. Scale-dependent habitat use in three species of prairie wetland birds. *Landscape Ecology* 14:267-276.
35. Naugle, D. E., K. F. Higgins, and S. M. Nusser. 1999. Effects of woody hydrophytes on prairie wetland birds. *Canadian Field-Naturalist* 113:487-492.
36. Nusser, S. M., F. J. Breidt, and W. A. Fuller. 1998. Design and estimation for investigating the dynamics of natural resources. *Ecological Applications* 8:234-245.
37. Nusser, S. M. and J. J. Goebel. 1997. The National Resources Inventory: a long-term multi-resource monitoring programme. *Environmental and Ecological Statistics* 4:181-204.
38. Naugle, D. E., J. S. Gleason, J. A. Jenks, K. F. Higgins, P. W. Mammenga, and S. M. Nusser. 1997. Factors influencing wetland use by Canada geese. *Wetlands* 4:552-558.
39. Nusser, S. M., W. A. Fuller, and P. M. Guenther. 1997. Estimating usual dietary intake distributions: adjusting for measurement error and nonnormality in 24-hour food intake data.

In L. Lyberg, P. Biemer, M. Collins, E. DeLeeuw, C. Dippo, N. Schwartz, and D. Trewin (editors), *Survey Measurement and Process Quality*, Wiley, New York, p. 689-709.

40. Nusser, S. M., A. L. Carriquiry, K. W. Dodd, and W. A. Fuller. 1996. A semiparametric transformation approach to estimating usual intake distributions. *Journal of the American Statistical Association* 91:1440-1449.
41. Jensen, H. H., S. M. Nusser, H. Riddick, and L. Sands. 1992. A critique of two methods for assessing the nutrient adequacy of diets. *Journal of Nutrition Education*, 24:123-129.
42. Carriquiry, A. L., H. H. Jensen, and S. M. Nusser. 1991. Modeling chronic versus acute human health risk from contaminants in food. In J. A. Caswell (editor), *Economics of Food Safety*. Elsevier Science Publishing Co., New York, p. 69-87.
43. Whigham, D. F. and S. M. Nusser. 1990. The response of *Distichlis spicata* (L.) Greene and *Spartina patens* (Ait.) Muhl. to nitrogen fertilization in hydrologically altered wetlands. In D. F. Whigham, R. E. Good, and J. Kvet (editors), *Wetland Ecology and Management: Case Studies*. Kluwer Academic Publishers, The Netherlands, p. 31-38.
44. Nusser, S. M., A. L. Carriquiry, H. H. Jensen, and W. A. Fuller. 1990. A transformation approach to estimating usual intake distributions. In G. A. Milliken and J. R. Schwenke (editors), *Applied Statistics in Agriculture: Proceedings of the 1990 Kansas State University Conference on Applied Statistics in Agriculture*. Manhattan, KS, p. 120-132.
45. Cure, W. C., S. M. Nusser, and A. S. Heagle. 1988. Canopy reflectance of soybeans as affected by chronic doses of ozone in open-top-fluid chambers. *Photogrammetric Engineering and Remote Sensing* 54:499-504.
46. Byrne, S. V., T. R. Wentworth, and S. M. Nusser. 1987. A moisture strain index for loblolly pine. *Canadian Journal of Forest Research* 17:23-26.

#### NON-REFEREED PUBLICATIONS

1. Fletcher, C. N., C. Gundersen, M. Larsen, S. Nusser. 2008. Consumer views on the biofuel industry: does proximity matter? *Consumer Interests Annual* 54:185-186. (proceedings paper for poster presented by Fletcher, which won first prize in a poster contest at the annual joint American Council on Consumer Interests and American Agricultural Economics Association)
2. Beyler, N. K., S. M. Nusser, W. A. Fuller, G. J. Welk. 2008. Relating self-report and accelerometer physical activity with application to NHANES 2003-2004. *Proceedings of the Section on Survey Research Methods*, American Statistical Association. [CD-ROM]
3. Alf, C., S. M. Nusser, V. Lessard. 2008. Evaluating data collection quality after protocol changes. *Proceedings of the Section on Survey Research Methods*, American Statistical Association. [CD-ROM]
4. Beyler, N. K., S. M. Nusser, W. A. Fuller, A. L. Carriquiry and G. J. Welk. 2007. Survey design for studies of measurement error in physical activity assessments. *Proceedings of the Section on Survey Research Methods*, American Statistical Association. [CD-ROM]
5. Carriquiry, A. L. and S. M. Nusser. 2007. Biometric developments in health surveys: discussion. *Proceedings of the 56<sup>th</sup> Session of the International Statistical Institute*. [CD-ROM]



6. Legg, J., W. A. Fuller and S. M. Nusser. 2006. Estimation for two-phase panel surveys. *Proceedings of the Section on Survey Research Methods*, American Statistical Association. [CD-ROM]
7. Nusser, S. M. 2005. Digital capture of geographic feature data for surveys. *Proceedings of the 2005 Federal Committee on Statistical Methodology Research Conference*. [http://www.fcsm.gov/05papers/Nusser\\_IXA.pdf](http://www.fcsm.gov/05papers/Nusser_IXA.pdf)
8. Legg, J., W. A. Fuller and S. M. Nusser. 2005. Estimation for longitudinal surveys with repeated panels of observations. *Proceedings of the Section on Survey Research Methods*, American Statistical Association. [CD-ROM]
9. Nusser, S. M. 2005. Sample designs for monitoring survey data collection. *Proceedings of the 55<sup>th</sup> Session of the International Statistical Institute*. [CD-ROM]
10. Nusser, S. M. 2004. Computer-assisted data collection for geographic features. *Proceedings of the Section on Survey Research Methods*, American Statistical Association. [CD-ROM]
11. Ferraz, C., S. M. Nusser and J. D. Opsomer. 2004. Sample designs for monitoring the data collection process of longitudinal surveys. *Proceedings of the Section on Survey Research Methods*, American Statistical Association. [CD-ROM]
12. Miller, L., B. Zou, M. Hua, and S. Nusser. 2004. Supporting a virtual office environment for federal agency field operations. *The Third International Conference on Politics and Information Systems: Technologies and Applications (PISTA '04)*. Orlando, FL. pp. 84-88.
13. Kies-Bokenkroger, C. and S. M. Nusser. 2003. Generating accuracy measures for computer-based queries of geospatial data. *Proceedings of the Section on Statistics and the Environment*, American Statistical Association. [CD-ROM]
14. Mukhopadhyay, P. and S. M. Nusser. 2003. Computer-assisted probability sampling in the field. *Proceedings of the Section on Survey Research Methods*, American Statistical Association. [CD-ROM]
15. Murphy, E. D. and S. M. Nusser. 2003. Evaluating user interfaces for accommodation of individual differences in spatial abilities and way-finding strategies. In *Proceedings of the UAHCI 2003: 2nd International Conference on Universal Access In Human-Computer Interaction*, 4:1005-1009.
16. Miller, L. L. and S. Nusser. 2002. Supporting geospatial data in the field. *Proceedings of the 11<sup>th</sup> GITA Conference on Geographic Information Systems for Oil and Gas*, Houston, TX, pp. 139-151.
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3. Larson, J. M. , J. Legg, and S. M. Nusser. 2008. A survey of scientists employed by the Environmental Protection Agency: final methodology and response report. Prepared for the Union of Concerned Scientists. 22 pp.
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8. Nusser, S. M. 2003. User responses to digital map tools on handheld computers: Statistical design and analysis report for the 2002 Delaware Route Planning and Navigation Study. Report prepared for the Census Bureau. 19 pp.
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11. Nusser, S. M. and E. E. Klaas. 2001. GAP accuracy assessment pilot study. For Environmental Protection Agency. 61 pp.
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19. Nusser, S. M. 1999. Geostatistical control data for the 1997 National Resources Inventory. For Natural Resources Conservation Service. 39 pp.
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22. Nusser, S. M., W. A. Fuller, and L. L. Anderson. 1999. Sampling and weighting procedures for the Iowa Survey of Program Dynamics feasibility study. For the Census Bureau. 24 pp.
23. Nusser, S. M., and A. L. Carriquiry. 1998. Sampling approaches for nutrient data bases. For Nutrient Data Laboratory, USDA Agricultural Research Service. 23 pp.
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28. Nusser, S. M., A. N. Williams, and D. G. Anderson. 1997. Sample design, weighting procedures, and summary tables for the study of ISU employee professional development experiences. For the Iowa State University Professional Development Committee. 148 pp.
29. Williams, A. N., C. C. Morphew, S. M. Nusser. 1997. Some considerations for conducting an electronic mail study with university students. For the American Association of Public Opinion Research annual meetings, Richmond, VA. 7 pp.
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32. Nusser, S. M. and S. Fernandez. 1997. Comparison of mean scores for the 1997 graduating seniors survey. For the Iowa State University Office of Institutional Research. 2 pp.
33. Carriquiry, A. L., K. W. Dodd, and S. M. Nusser. 1997. Estimating adjusted intake and biochemical distributions for NHANES III. For National Center for Health Statistics. 302 pp.
34. Dorsch, R. K., A. M. McVey, S. M. Nusser, and W. A. Fuller. 1996. Sample design and wage rate estimation for the 1995 Iowa Wage Survey. For the Iowa Department of Employment Services. 12 pp.
35. Nusser, S. M. and S. Fernandez. 1996. Weight calculation for RDI II business study. For Terry Besser, Department of Sociology, Iowa State University. 4 pp.
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37. Shierholz, H. S., S. M. Nusser, and F. J. Breidt. 1996. Sampling approaches for Minnesota fish contamination studies. For Minnesota Department of Natural Resources. 42 pp.
38. Nusser, S. M. and F. J. Breidt. 1996. Sample design recommendations for Minnesota fish contamination studies. For Minnesota Department of Natural Resources. 27 pp.
39. Nusser, S. M., A. M. McVey, and A. N. Williams. 1996. Sample design and weighting procedures for a study of campus climate at Iowa State University. For the Iowa State University Committee on Diversity. 2 pp.
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44. Nusser, S. M. 1995. Options for future studies of campus diversity issues. For the Iowa State University Committee on Diversity. 6 pp.
45. Opsomer, J. and S. M. Nusser. 1995. Faculty Activity Survey, 1994-1995. For Robert Bergmann, Institutional Research, Iowa State University. 1 p.
46. Nusser, S. M. 1995. Options for sample design for the National Panel Study of Business Start-ups. For the Entrepreneurial Research Consortium, a group of 60 university researchers throughout the U.S. 4 pp.
47. Nusser, S. M., W. A. Fuller, and H. D. Baker. 1995. Southeastern Minnesota Women's Health Project: Summary report for 1993 and 1995 surveys. For Thomas Kottke, Mayo Clinic. 8 pp.
48. Nusser, S. M., A. L. Carriquiry, K. W. Dodd, and W. A. Fuller. 1995. A semiparametric transformation approach to estimating usual daily intake distributions. CARD Staff Report 95-SR 74, Dietary Assessment Research Series Report 2, Center for Agricultural and Rural Development, Iowa State University. 25 pp.
49. McVey, A. M., S. M. Nusser, and W. A. Fuller. 1994. Sample design and wage rate estimation for the 1993 Iowa Wage Survey. For the Iowa Department of Employment Services. 9 pp.
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52. Graham, M. A., S. M. Nusser, K. A. Leonard, and F. O. Lorenz. 1993. A statistical analysis of sex equity survey results. For the Iowa State University Committee on Women. 8 pp.

53. Nusser, S. M. and K. A. Leonard. 1993. Analyses for the College of Agriculture and for the Humanities segment of Liberal Arts and Sciences. For the Iowa State University Committee on Women. 8 pp.
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55. Nusser, S. M., G. E. Battese, and W. A. Fuller. 1990. Method of moments estimation of usual nutrient intake distributions. CARD Working Paper 90-WP 52. 25 pp.
56. Nusser, S. M., A. L. Carriquiry, H. H. Jensen, and W. A. Fuller. 1990. A transformation approach to estimating usual intake distributions. CARD Working Paper 90-WP 59. 22 pp.
57. Carriquiry, A. L., H. H. Jensen, and S. M. Nusser. 1990. Modeling chronic versus acute human risk from contaminants in food. CARD Working Paper 90-WP 69. 29 pp.

## PRESENTATIONS

### Conferences: Invited

1. "Geospatial data collection in the US National Resources Inventory," International Conference on Agricultural Statistics, Rio de Janeiro, Brazil, October 2013
2. "Using geospatial information in area sampling and estimation for agricultural and environmental surveys", World Statistics Conference, Hong Kong, August 2013
3. "Sample design for Alaska in the National Resources Inventory (NRI)", The International Environmetrics Society Conference, Anchorage, AK, June 2013
4. "Survey errors in land-based surveys", International Total Survey Error Workshop, Ames, IA, June 2013
5. "Estimating usual physical activity distributions for populations," Latin American Society of Nutrition (SLAN) Congress, Havana, Cuba, November 2012
6. "A measurement error approach for estimating usual activity distributions," The 8<sup>th</sup> International Conference on Diet and Activity Methods, Rome, May 2012
7. "Modeling measurement errors In physical activity data," Joint Statistical Meetings, Miami, FL, August 2011
8. "Modeling errors in physical activity data," Measurement of Active and Sedentary Behaviors: Closing the Gaps in Self-Report Methods, National Institutes of Health, July 2010
9. "Statistical perspective: modeling errors in physical activity data," Symposium on Methodological and Statistical Challenges in Obesity and Health Research, Iowa State University, May 2010
10. "Pro-bono statistics: discussion," Joint Statistical Meetings, Washington, DC, August 2009
11. "Beyond design – reaching out with NHANES data: discussion," Joint Statistical Meetings, Denver, August 2008
12. "Sample designs for the National Resources Inventory," Workshop on sampling for Federal terrestrial surveys, hosted by Agricultural Research Service, Salt Lake City, April 2008

13. "Biometric developments in health surveys: discussion," 56<sup>th</sup> Session of the International Statistical Institute, Lisbon, August 2007
14. "Geographic feature data collection for longitudinal surveys," FedCASIC, Washington, DC, March 2007
15. Discussion of "Statistical perspectives on spatial social science" (presented by M. F. Goodchild), Morris Hansen Memorial Lecture, Washington Statistical Society, Washington, DC, November 2006
16. "Sampling considerations for monitoring CWD [chronic wasting disease] in deer populations," The Wildlife Society Annual Conference, Madison, WI, September 2005
17. "Computer-assisted methods for collecting geographic data using photographic backdrops," Joint Statistical Meetings, Minneapolis, August 2005
18. "Using data from the National Resources Inventory," REAP Alliance Meeting, Ankeny, IA, October 2004
19. "CASIC developments at Iowa State University," FedCASIC, Washington, DC, March 2004
20. "Topics in geographic metadata," GovStat Metadata Symposium, Chapel Hill, NC, September 2003
21. "Computer-assisted survey data collection using geospatial data," Interdisciplinary Research Institute for Survey Science Workshop, Ames, IA, May 2003
22. "Combining data from state and national monitoring surveys to assess large-scale impacts of agricultural policy," International Biometric Society ENAR Meeting, Tampa, FL, March 2003
23. "Mobile computing for sample surveys," 35<sup>th</sup> Symposium on the Interface, Salt Lake City, UT, March 2003
24. "Metadata and computer-assisted data collection," Open Forum 2003 on Metadata Repositories, Sante Fe, NM, January 2003
25. "Using GIS data in analysis weights for environmental surveys," Spatial Statistics: Integrating Statistics, GIS, and Statistical Graphics, Seattle, WA, October 2002
26. "Using geospatial information in planning and navigation," Joint Statistical Meetings, New York, August 2002
27. "Latent class analysis of dietary intake data (discussion)" Joint Statistical Meetings, New York, August 2002
28. "A user-centered framework for next-generation field data collection," 2002 National Conference on Digital Government Research, Los Angeles, CA, May 2002
29. "Digital geospatial data and survey data collection," Workshop on Survey Automation, National Academies Committee on National Statistics, April 2002
30. "Metadata and the data collection cycle," FedCASIC, Washington, DC, February 2002
31. "Using geospatial information to locate sample units in the field," Federal Committee on Statistical Methods Research Conference, Washington, D.C., November 2001



32. "Using geospatial data in mobile field environments," Federal Committee on Statistical Methods Research Conference, Washington, D.C., November 2001 (demonstration)
33. "Using and Collecting Geospatial Data in Mobile Field Environments," Third International Conference on Geospatial Information in Agriculture and Forestry, Denver, Colorado, November 2001 (demonstration, given by Dean Thompson)
34. "Future views of field data collection in statistical surveys," dg.o 2001 National Conference on Digital Government Research, Los Angeles, CA, May 2001
35. "A framework and testbed for survey data collection in a mobile field environment," dg.o 2001 Workshop, Los Angeles, CA, May 2001 (poster)
36. "Collecting and using geospatial data in the field," NSF Workshop on Challenges in Statistical Digital Government, Washington, DC, April 2001 (demonstration)
37. "Using geospatial data in mobile survey environments," FedCASIC, Washington, DC, February 2001
38. "Geospatial data in a mobile field data collection setting: the role of metadata," United Nations / European Economic Community Statistical Metadata Workshop, Washington, DC, November 2000
39. "Food stamps leavers studies: a methodological perspective," Association for Public Policy Analysis and Management Fall Research Conference, Seattle, WA, November 2000
40. "Collecting and using geospatial data in the field," dg.o 2000 Workshop, Burbank, CA, May 2000 (demonstration)
41. "Collecting location data for surveys," FedCASIC, Washington, DC, February 2000.
42. "Incorporating geospatial information: lessons from natural resource surveys," Social Science Data and Data Infrastructure Conference, New York, NY, November 1999
43. "Impact of missing values from converted refusals on nonsampling error: discussion," International Conference on Survey Nonresponse, Portland, OR, October 1999
44. "Mobile computing for statistical survey data collection," Handheld and Ubiquitous Computing 1999, Karlsruhe, Germany, September 1999
45. "Advances in CASIC for spatial data collection," Joint Statistical Meetings, Baltimore, MD, August 1999 (poster)
46. "Recent developments in the NRI survey program," Frontiers of Environmental and Ecological Statistics for the 21<sup>st</sup> Century, Bowling Green, OH, April 1999
47. "Digital images in field data collection," Federal Web Consortium, Rockville, MD, April 1999
48. "Design and estimation for the National Resources Inventory," Environmental Monitoring Surveys Over Time, Seattle, WA, April 1998
49. "The history of survey sampling at Iowa State University: 1947-1997," Statistics for Correlated Data: a Conference marking the 50<sup>th</sup> anniversary of the Department of Statistics at Iowa State University, Ames, IA, October 1997
50. "Usual intake distributions in risk assessment for food residues," Joint Statistical Meetings, Anaheim, August 1997

51. "Combining information for environmental impact assessment (discussion)," Joint Statistical Meetings, Anaheim, August 1997
52. "The USDA's CSFII: issues and applications (discussion)," Joint Statistical Meetings, Anaheim, August 1997
53. "Design and estimation for investigating natural resource dynamics," Ecological Resource Monitoring: Change and Trend Detection Workshop, Patuxent Wildlife Refuge, MD, May 1996
54. "Measures of central tendency for food composition databases," Workshop on the Statistical Representation of Food Composition Data, Agricultural Research Service, USDA, April 1996
55. "Sampling issues in regional monitoring programs," Joint Statistical Meetings, Orlando, FL, August 1995 (discussion)
56. "Estimating usual dietary intake distributions: adjusting for measurement error and normality in 24-hour food intake data," International Conference on Survey Measurement and Process Quality, Bristol, England, April 1995
57. "Estimating usual food intake distributions from 24-hr dietary intake data," Joint Statistical Meetings, Toronto, August 1994
58. "Estimating usual intake distributions from food record and recall data," American Public Health Association Meetings, San Francisco, CA, October 1993
59. "Failure time analyses for repeated measure event time data," Procter & Gamble Math/Stat Symposium, Cincinnati, OH, May 1991

Conferences: Contributed

1. "Modeling physical activity distributions for populations," Joint Statistical Meetings, San Diego, CA, August 2012 (topic contributed)
2. "Geographic data collection for longitudinal surveys," Joint Statistical Meetings, Salt Lake City, August 2007.
3. "Sample designs for monitoring survey data collection," 55<sup>th</sup> Session of the International Statistical Institute, Sydney, Australia, April 2005.
4. "Computer-assisted data collection for geographic features," Joint Statistical Meetings, Toronto, August 2004.
5. "User responses to digital map tools on handheld computers," Joint Statistical Meetings, San Francisco, August 2003.
6. "Mobile CASIC and the survey process," Third International Association for Survey Computing Conference, Edinburgh, Scotland, September 1999
7. "New technologies for mobile survey data collection," Joint Statistical Meetings, Dallas, TX, August 1998.
8. "Web-based survey tools," American Association of Public Opinion Research, St. Louis, MO, May 1998

9. "Networked hand-held CASIC," Statistics Canada Symposium '97: New Directions in Surveys and Censuses, Ottawa, Canada, November 1997
10. "A CASIC system using hand-held computers and centralized data servers," International Statistical Institute, Istanbul, Turkey, August 1997
11. "Conducting surveys with personal digital assistants," International Conference on Computer-Assisted Survey Information Collection, San Antonio, TX, December 1996
12. "Using personal digital assistants to collect survey data," Joint Statistical Meetings, Chicago, IL, August 1996
13. "Analyzing ecological trends with multiple natural resource data bases," ENAR Biometrics Meetings, Richmond, VA, March 1996
14. "Protection status of critical habitat for nesting black terns," 57th Midwest Fish and Wildlife Conference, presented by M. E. Estey with co-authors Naugle, R. R. Johnson, K. F. Higgins, S. M. Nusser, December 1995 (poster)
15. "Estimating usual food intake distributions," International Dietary Assessment Methodology Conference, Boston, MA, January 1995
16. "Estimating usual intake distributions for foods," Joint Statistical Meetings, San Francisco, CA, August 1993
17. "Estimating usual intake distributions for foods," ENAR Biometrics Meetings, Philadelphia, PA, March 1993
18. "A semiparametric transformation to normality: application to dietary data," Joint Statistical Meetings, Atlanta, GA, August 1991
19. "Failure time analyses for correlated data," NATO Advanced Studies Workshop on Survival Analysis and Related Topics, Columbus, OH, June 1991 (poster)
20. "Failure time analyses for repeated measure event time data," ENAR Biometrics Meetings, Houston, TX, March 1991
21. "Failure time analyses for correlated data," Joint Statistical Meetings, Anaheim, CA, August 1990
22. "Estimating the distribution of usual nutrient intakes: a model-based approach," American Institute of Nutrition, Charleston, SC, December 1989 (poster)
23. "Estimating the distribution of usual nutrient intakes: a model-based approach," ENAR Biometrics Meetings, Lexington, KY, March 1989

#### Government Agencies and Industry

1. "Modeling measurement errors in physical activity data," New Zealand Ministry of Health, March 2012
2. "An overview of the National Resources Inventory," Statistics New Zealand, March 2012
3. "Modeling measurement errors in physical activity data," Westat, Rockville, MD, December 2011

4. "Modernizing the June Area Survey," National Agricultural Statistics Service, Fairfax, VA, October 2011
5. "Sample design alternatives for the June Area Survey," National Agricultural Statistics Service, Fairfax, VA, May 2011
6. "Applications of measurement error models to dietary intake and physical activity data," Centers for Disease Control, Atlanta, GA, August 2011
7. Using digital tools for collecting data in the June Area Survey," National Agricultural Statistics Service, Fairfax, VA, June 2004
8. "Methodological research on mobile computing tools for field data collection," American Statistical Association Census Bureau Advisory Committee Meeting, Crystal City, VA, October 2003
9. "Computer-assisted survey data collection using geospatial data," National Agricultural Statistics Service, Fairfax, VA, May 2003
10. "Using digital geospatial information to locate sample units in the field," Bureau of Labor Statistics, Washington, DC, February 2002
11. "Using and collecting geospatial data in mobile field environments," Digital Government Consortium, Washington, DC, November 2001
12. "Project Battuta: using geospatial data in mobile field environments," Digital Government Consortium, Washington, DC, November 2000
13. "Geostatistical Control Data for the 1997 NRI," USDA NRCS, Beltsville, December 1998
14. "Computer-assisted survey information collection," USDA NRCS National Cartography and Geospatial Data Center, April 1998
15. "Statistical aspects of the National Resources Inventory," USDA NRCS National Cartography and Geospatial Data Center, May 1997
16. "Statistical aspects of conducting surveys," Workshop on watershed assessment, NRCS Watershed Sciences Institute, Charlotte, NC, April 1997
17. "Statistical approaches to soil survey updates," USDA National Soil Survey Center, Lincoln, NE, February 1996
18. "Estimating usual dietary intake distributions: adjusting for measurement error and normality in 24-hour food intake data," Proctor and Gamble, Cincinnati, OH, June 1995
19. "Estimating usual dietary intake distributions: adjusting for measurement error and normality in 24-hour food intake data," Agricultural Research Service, USDA, June 1995
20. "Estimating usual dietary intake distributions: adjusting for measurement error and normality in 24-hour food intake data," National Cancer Institute, May 1995
21. "Estimating usual intake distributions from food record and recall data," Human Nutrition Information Service, USDA, November 1993
22. "Estimating the distribution of usual nutrient intakes: a model-based approach," Human Nutrition Information Service, USDA, January 1990

23. "Estimating the distribution of usual nutrient intakes: a model-based approach," National Cancer Institute, January 1990
24. "Estimating the distribution of usual nutrient intakes," Human Nutrition Information Service, USDA, April 1988

#### Educational Institutions

1. "Adjusting for measurement error in physical activity data", JPSM Distinguished Lecture, Joint Program in Survey Methodology, University of Maryland, College Park, MD, April 2014.
2. "Modeling measurement errors In physical activity data," Massey University, New Zealand, March 2012
3. "Addressing measurement error in physical activity data," seminar series sponsored by Nutrition Wellness Research Center, Institute for Social and Behavioral Research, and Center for Survey Statistics and Methodology, Iowa State University, September 2009
4. "Evaluating sample designs for monitoring chronic wasting disease," Department of Natural Resource Ecology and Management, Iowa State University, April 2005
5. "Mobile computing and field data collection for statistical surveys," Department of Geography, University of Iowa, April 2003
6. "Survey methods for assessing land cover map accuracy," Institute for Social Research, University of Michigan, December 2002
7. "Geospatial data and survey data collection," Department of Statistics, Iowa State University, March 2002
8. "Using and collecting geospatial data in mobile field environments," Department of Geography, University of Iowa, April 2001
9. "Statistical Laboratory Survey Section: history and current activities," Department of Statistics (Iowa-Staters), Iowa State University, October 1998
10. "Statistical methods for soil survey updates," Department of Statistics, Texas A & M University, September 1997
11. "Statistical methods for soil survey updates," Department of Statistics, North Carolina State University, April 1997
12. "Estimating usual intake distributions for nutrients and foods," Department of Statistics, Harvard University, January 1995 (with A. L. Carriquiry)
13. "Conducting high quality survey research," Mayo Clinic, Rochester, MN, October 1994
14. "Estimating usual intake distributions from food record and recall data," Division of Biostatistics, University of Iowa, January 1994
15. "Estimating usual intake distributions from food record and recall data," Department of Food Science and Human Nutrition, Iowa State University, October 1993
16. "The Statistical Laboratory's Survey Section: perspectives on the past, present and future," Department of Statistics, Iowa State University, October 1993

17. "Failure time analyses for repeated measure event time data," Department of Statistics, Pennsylvania State University, November 1992
18. "A semiparametric transformation to normality: application to dietary data," Department of Statistics, Iowa State University, October 1991
19. "Failure time analyses for correlated data," Department of Statistics, Iowa State University, May 1990
20. "Estimating the distribution of usual nutrient intakes: a model-based approach," Center for Agricultural and Rural Development, Iowa State University, February 1989
21. "Estimating the distribution of usual nutrient intakes: a model-based approach," Department of Statistics, Iowa State University, October 1988

### **AFFILIATION WITH CENTER FOR SURVEY STATISTICS AND METHODOLOGY (CSSM)**

Consult with on- and off-campus researchers on sample design, questionnaire development, coding, weighting, and statistical analysis. Clients include ISU faculty and graduate students, ISU administration officials and program directors, and researchers in state, federal and nonprofit agencies.

Direct the ISU-USDA NRCS National Resources Inventory land SU-BLM cooperative agreement activities, totaling approximately \$3 million per year. All 5 survey faculty are involved, along with 5 graduate students supervised by faculty and 120 methodology and survey systems staff.

### **TEACHING**

#### Courses Taught

Statistics 415 (1 cr)	Selection Bias and Measurement Error, Fall 2012
Statistics 401 (4 cr)	Statistical Methods for Research Workers in the Biological Sciences Spring 2013, Spring 2011, Spring 2010, Fall 2008, Fall 2007, Fall 2006, Fall 1996
Statistics 421 (3 cr)	Survey Sampling Techniques Spring 2005, Spring 2004, Spring 2003, Spring 2002, Spring 2000, Spring 1998, Spring 1995, Spring 1994
Ecology & Evolutionary Biology 698	Statistical Applications in Ecology and Evolutionary Biology Fall 1998 (4 weeks on survey sample design and estimation)

### **GRADUATE EDUCATION**

#### Major Professor: MS

1. Cherié Alf (Summer 2008)
2. Nick Beyler (Summer 2007)
3. Joey Pan (Summer 2005)
4. Ling Huang (Summer 2005)

5. Courtney Kies (Spring 2003)
6. Lixin Qu (Spring 2003)
7. Jason Legg (Fall 2002)
8. Cristiano Ferraz (Fall 2001)
9. Carston Botts (Summer 2001)
10. Dorin Drignei (Spring 2000)
11. Kara Perritt (Fall 1997)
12. Heidi Shierholz (Spring 1996)
13. Pamela Abbitt Arrowway (Fall 1995)
14. Zugeng Zheng (Summer 1995)
15. Kelli Leonard (Spring 1994)
16. Stephanie Schaller (Fall 1993)

Major Professor: PhD

1. Stephanie Zimmer (expected 2014, co-directed with J. Kim)
2. Minsun Kim Riddles (2013, co-directed with J. Kim)
3. Nick Beyler (2010, co-directed with W. A. Fuller)
4. Emily Berg (2010, primarily directed by W. A. Fuller)
5. Michelle Rusch (2008, Human Computer Interaction, 2008, co-directed with L. L. Miller)
6. Jason Legg (2006, co-directed with W. A. Fuller)
7. Cristiano Ferraz (2004, co-directed with J. D. Opsomer)
8. Pamela Abbitt Arrowway (1999, co-directed with F. J. Breidt)

**PROFESSIONAL SERVICE: External**

Committees, Programs, and Editorial Assignments

- |              |   |
|--------------|---|
| 2013-present | Member, Scientific Advisory Committee, Global Strategy to Improve Agricultural and Rural Statistics, UN Food and Agriculture Organization   |
| 2013         | Chair, External Review Panel for the Joint Program for Survey Methodology, University of Maryland, College Park   |
| 2012         | Member, National Academies <i>Expert Panel Review of Proposed Dual-System Estimation Approach for the Census of Agriculture</i> , commissioned by the Committee on National Statistics          |
| 2011-2012    | Member, National Academies <i>Panel on Redesigning the BLS Consumer Expenditure Surveys</i> , commissioned by the Committee on National Statistics  |
| 2009-2012    | Member, Technical Working Group for the <i>National Household Food Purchase and Acquisition Survey</i> , Mathematica Policy Research  |
| 2009-2012    | Member, National Academies <i>Panel on Estimating Children Eligible for School Nutrition Programs from the American Community Survey</i> , commissioned by the Committee on National Statistics |
| 2009-2011    | Chair-elect, Chair, Past-chair, Council of Sections Governing Board, American Statistical Association   |

- 2006-2011 Member and Chair (2009), Census Bureau Scientific Advisory Committee (formerly Advisory Committee of Professional Associations, American Statistical Association representative)
- 2010 Member, NIH Review Panel for Improving Diet and Physical Activity Assessment
- 2008-2009 Treasurer (2008) and Secretary (2009), Section on Statistics and the Environment, American Statistical Association
- 2005-2009 Member, Council of the International Association of Survey Statisticians
- 2007 Member, NIH Biostatistical Methods and Research Design (BRMD) Study Section Review Panel
- 2005-2007 Member, National Academies *Panel on Social Security Representative Payees*
- 2005-2007 Chair, 2007 Cochran-Hansen Prize Committee (for young statisticians in developing and transitioning countries), International Association of Survey Statisticians
- 1999-2002, 2004-2005, 2007 Organizer, *Workshop on technologies for survey data collection* (mobile computing, GIS, sensors) for annual FedCASIC Conference
- 2004-2006 Chair-elect, Chair, Past-chair, Survey Research Methods Section, American Statistical Association
- 2006 Member, NIH Improving Diet and Physical Activity Assessment (HOP D-50) Review Panel
- 2005 Member, External review committee for University of Nebraska – Lincoln Statistics Department
- 2002-2005 ASA representative (2002-2004) and IBS representative (2005) for Management Committee for the *Journal of Agricultural, Biological and Environmental Statistics*
- 2001-2005 Advisory Group for the Behavioral Risk Factor Surveillance System, Survey Research Methods Section, American Statistical Association
- 2004 Committee of Visitors (COV) to review NSF Division of Social and Economic Sciences programs in Methodology, Measurement, and Statistics; Science and Technology Studies; and Societal Dimensions of Engineering, Science, and Technology
- 2001-2002 Treasurer, Survey Research Methods Section, American Statistical Association
- 2001 Participant, *Workshop on the Intersection of Geospatial Information and Information Technology*, National Academies Computer Science and Telecommunications Board
- 2001 Guest Panelist, *Future Census Methods Research Panel*, National Academies Committee on National Statistics
- 2001 Scientific Committee, *Specialist Meeting on Location-based Services*, National Center for Geographic Information and Analysis



- 2000-2001 Panelist for NSF Survey Methodology proposal review (2 years)
- 2000-2001 Scientific Committee, 7<sup>th</sup> International Blaise Users Conference
- 1997-present National Selection Board for Undergraduate Internships in Federal Statistical Agencies
- 1996-2001 Survey Review Committee, American Statistical Association
- 1997-1999 Associate Editor for *Biometrics*
- 1997-1998 Organizing Committee, Conference on *Environmental Monitoring Surveys Over Time*, co-sponsored by Environmental Protection Agency, National Research Center for Statistics and the Environment, US Forest Service, Natural Resources Conservation Service.
- 1997-1998 Ad-hoc Committee on New Member Initiatives (Chair), Survey Research Methods Section, American Statistical Association
- 1995-1996 Publications Officer, Biometrics Section, American Statistical Association
- 1993-1994 Participant, Quantitative Literacy Program for Secondary Educators in Iowa, American Statistical Association

#### Articles Refereed

American Statistician, American Journal of Public Health, Biometrics, Ecological and Environmental Statistics, Environmental Monitoring and Assessment, Journal of the American Statistical Association, Journal of Physical Activity and Health, Journal of Official Statistics, Journal of Physical Activity and Health, Journal of the Soil Science Society of America, Journal of Wildlife Management, Pharmaceutical Research, Photogrammetric Engineering and Remote Sensing, Public Opinion Quarterly, Stats

#### Research Proposals and Reports Reviewed

Iowa Agriculture and Home Economics Experiment Station, National Academy of Sciences, Institute of Medicine, National Institutes of Health, National Science Foundation, USDA Agricultural Research Service

#### Texts Reviewed

Wiley, Duxbury Press

#### Memberships

American Statistical Association  
 International Association of Survey Statisticians  
 International Statistics Institute

**PROFESSIONAL SERVICE: Iowa State University**University Programs and Committees

- 1999-present GIS Facility Steering Committee
- 2009-2010 Member, Organizing committee for Nutrition and Wellness Research Center's 2010 symposium on *Methodological and Statistical Challenges in Obesity and Health Research* (co-sponsored by ISBR and Center for Survey Statistics and Methodology and by the Institute for Social and Behavioral Research)
- 2009 2050 Challenge Task Force for Research (input to ISU's 2010-2015 Strategic Plan)
- 2005 Speaker, Frontiers of the Discipline (Physical and Mathematical Sciences), for incoming College of Liberal Arts and Sciences undergraduates
- 2004 Carver Trust Grants Review Committee
- 2003-2004 President's Task Force on Centers and Institutes
- 1999 Presenter, Road Less Traveled Conference for High School Girls, Program for Women in Science and Engineering
- 1997-1998 Search Committee for Director of Academic Information Technology
- 1994 University Strategic Planning Committee for Information Technology
- 1992, 1993 Mentor, Program for Women in Science and Engineering Undergraduate Summer Internships

Departmental Committees

- 2012-2014 Department of Statistics Chair Search Committee
- 2012-2014 Promotion and Tenure Committee
- 2012-2013 Curriculum Committee
- 2012 Director of Statistical Consulting and of Survey & Behavioral Research Services Search Committee
- 2007-2011 Advisor, ISU STATCOM (statistics graduate student service organization)
- 2010-2011 Memorial Lectures Committee (Chair)
- 2009-2011 Honors and Awards Committee
- 2009-2011 Advisory Committee to the Chair
- 2005-2009 Statistical Laboratory 75<sup>th</sup> Anniversary Committee (chair, 2008-2009)
- 2007-2008 Advisory Committee to the Chair
- 2003-2008 Promotion and Tenure Committee
- 2005-2007 Honors and Awards Committee
- 2005 External Review Team Selection Committee
- 2002-2003 Survey Faculty Search Committee (Chair)
- 2002-2003 Graduate Admissions Committee

- 2001-2002 DEO Search Committee
- 2001-2002 Seminar Committee (Fall Chair)
- 2000-2001 Organizing Committee for Wayne Fuller 70<sup>th</sup> Birthday Conference (Chair)
- 2000-2001 Statistical Laboratory Strategic Planning Committee
- 1994-2001 Survey Faculty Search Committee (Chair: 1994-1995, 1996-1997, 1998-1999, 2000-2001)
- 1997-2000 Assistantship Evaluation Committee (Chair, 1998-2000)
- 1997-1998 Survey Section Self-Study Committee (Chair)
- 1996-1997 Statistical Laboratory, Statistical Computing Section Committee
- 1995-1996 Safety Committee
  - 1994 DEO Evaluation Committee
  - 1994 Statistical Laboratory Survey Section Strategic Planning Subcommittee (Chair)
- 1993-1994 Seminar Committee (Spring Chair)
- 1992-1993 Assistantship Evaluation Committee