

## **SARAH M. NUSSER**

Research Professor, Biocomplexity Institute, University of Virginia

Professor Emerita of Statistics, Iowa State University

ORCID: 0000-0001-5580-2949

January 2023

### **POSITIONS AND AFFILIATIONS**

- 2021 – Professor Emerita, Department of Statistics, Iowa State University
- 2021 – 2022 Research Professor, Social and Decision Analytics Division, Biocomplexity Institute, University of Virginia
- 2021-2022 Senior Fellow, Association of American Universities
- 2020-2021 Visiting Professor, Social and Decision Analytics Division, Biocomplexity Institute, University of Virginia
- 2003-2021 Professor, Department of Statistics, Iowa State University
- 1992-2021 Faculty member, Center for Survey Statistics and Methodology, Iowa State University
- 2014-2020 Vice President for Research, Iowa State University
- 2003-2020 Human Computer Interaction Graduate Program, Iowa State University
- 1994-2020 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**

- Fellow, American Association for the Advancement of Science, 2021
- 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

## FACULTY ACTIVITIES (2020-present)

### FACULTY

Sarah Nusser is Professor Emerita of Statistics and formerly affiliated with the Center for Survey Statistics and Methodology (CSSM) at Iowa State University, and recently held the position of research professor at University of Virginia's Social and Decision Analytics Division of the Biocomplexity Institute. Nusser's current research focuses on improving the reusability and impact of publicly accessible research data, and she leads an NSF-funded study to develop a framework that describes factors and practices that promote reusability of research data. Nusser is also involved in a UVA project to envision a new approach to conducting the decennial census based on a Curated Data Enterprise as the foundation for transforming the decennial census and other Census Bureau surveys. In her capacity as senior fellow with the Association of American Universities (AAU), Nusser was also involved in the Accelerating Public Access to Research Data initiative of AAU-Association of Public and Land-grant Universities (APLU).

### FUNDING

1. EAGER: Improving the Quality and Reducing the Burden of Producing and Reusing Publicly Accessible Research Data. NSF (2039677). PI: S Nusser (Iowa State U), Co-PI: G. Korkmaz (U Virginia), A. Mikytuck (U Virginia). 8/24/2020-8/31/22, \$300,000.<sup>1</sup>
2. Conference and National Summits to Develop a Guide to Accelerating Public Access to Research Data at Academic Institutions. (NSF 1939279). PI: T Smith (AAU), Co-PI: K Redd (APLU), S Nusser (formerly G Madden, Penn State U, 2020), R Samors. 9/15/2019 – 3/1/2022, \$191,486.

### REFERRED PUBLICATIONS

1. Mikytuck AM, Nusser SM, Kormaz G. The interdependence of data producers and data users: How researchers' behaviors can support or hinder each other. Submitted to *PLOS ONE*, preprint available at: <https://osf.io/preprints/metaarxiv/yp3ct/>.
2. Nusser, SM. 2023. The role of statistics in promoting data reusability and research transparency. Invited submission to *Annual Review of Statistics and Its Application*, 10:23.1–23.20. <https://doi.org/10.1146/annurev-statistics-033121-105114>.

---

<sup>1</sup> In summer 2021, due to changes in affiliations for Nusser, AL Carriquiry became ISU PI, Nusser became ISU co-PI.

3. Bourne PE, Bonazzi V, Brand A, Carroll, B, Foster I, Guha RV, Hanisch R, Keller SA, Kennedy ML, Kirkpatrick C, Mons, B, Nusser SM, Stebbins M, Strawn G, Szalay A. Playing catch-up in building an open research commons. *Science* 377(6603):356-258. <https://doi.org/10.1126/science.abo5947>
4. Stakeholder Alignment Collaborative<sup>2</sup>. 2022. When launching a collaboration, keep it agile. *Stanford Social Innovation Review*, Spring 2022:41-47.

## REPORTS

1. Redd K, Smith T, Miller E, Nusser S. 2022. Accelerating Public Access to Research Data (APARD) initiative. Blog prepared for *Building Data Resilience Through Collaborative Networks Symposium*, Educopia, July 2022.
2. Keller S, Prewitt K, Thompson J, Jost S, Barrett C, Nusser, S, Salvo J, Shipp S. 2022. A 21<sup>st</sup> century Census Curated Data Enterprise: A bold new approach to create official statistics. Biocomplexity Institute Proceedings, University of Virginia, Spring 2022. [https://biocomplexity.virginia.edu/sites/default/files/census/reports/UVA\\_Census\\_CDE\\_report\\_spring2022.pdf](https://biocomplexity.virginia.edu/sites/default/files/census/reports/UVA_Census_CDE_report_spring2022.pdf) [Accessed May 25, 2022]
3. National Academies of Sciences, Engineering, and Medicine. 2021. *Transparency in Statistical Information for the National Center for Science and Engineering Statistics and all Federal Statistical Agencies*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/26360>.
4. Wold B, Tabak LA, Ator N, Berro L, Bliss-Moreau E, Gonzalez-Villalobos RA, Hankenson C, Kiermer V, Mathis KW, Nusser S, Nuzzo R, Prager E, Ramirez FD, Svenson K, Berridge B, Brown P, Clayton J, Gordon JA, Lauer M, Wolinetz C. 2021. *ACD Working Group on Enhancing Rigor, Transparency, and Translatability in Animal Research*. [https://acd.od.nih.gov/documents/presentations/06112021\\_RR-AR%20Report.pdf](https://acd.od.nih.gov/documents/presentations/06112021_RR-AR%20Report.pdf) [Accessed April 7, 2022].
5. Nusser, SM, JE Cutcher-Gershenfeld, AM Mikytuck, G Korkmaz. 2021. *Fostering Data Reuse: Increasing Impact and Ease in Sharing and Reusing Data – Workshop Report and Action Steps*. Zenodo. <https://doi.org/10.5281/zenodo.5390123>.
6. Association of American Universities and Association of Public and Land-grant Universities. 2021. *Guide to Accelerate Public Access to Research Data*. Washington, DC. DOI: <https://doi.org/10.31219/osf.io/tjybn>
7. National Academies of Sciences, Engineering, and Medicine. 2021. *Principles and Practices for a Federal Statistical Agency: Seventh Edition*. Washington, DC: The National Academies Press. DOI: <https://doi.org/10.17226/25885>

## RECENT PRESENTATIONS

---

<sup>2</sup> Cutcher-Gershenfeld J, Baker KS, Berente N, Berkman PA, Berman HM, Canavan P, Feltus FA, Garmulewicz A, Gounden Rock A, Hutchins R, King JL, Kirkpatrick C, Lenhardt C, Levin P, Lewis S, Maffie M, Mayernik M, Mittleman B, Nusser SM, Plale B, Sampath R, Shin N, Stall S, Towns J, Winter S, Veazey P, Zarecor KE.

1. Transparency: current contexts and future directions. Federal Committee on Statistical Methodology Research and Policy Conference (session on Transparency of Official Statistics), October 2022.  
[https://www.fcsm.gov/assets/files/docs/2022-conference-docs/G2.1\\_Nusser\\_v2.pdf](https://www.fcsm.gov/assets/files/docs/2022-conference-docs/G2.1_Nusser_v2.pdf)
2. What campuses can do to accelerate public access to research data. Spotlight Series panel discussion, HELIOS (Higher Education Leadership Initiative for Open Scholarship), August 2022.
3. Design FDOs to improve researcher data sharing and reuse experiences (invited discussant), High Level Panel on Future Data Space, FAIR Digital Objects Forum, [online](#), January 2022.  
<https://arxiv.org/submit/4648085/view>
4. Transparency in Statistical Information for Federal Statistical Agencies (panelist). Committee on National Statistics Public Seminar, National Academies of Sciences, Engineering, and Medicine, [online](#), December 2021.
5. The role of statistics in open science and publicly accessible research data (roundtable organizer/chair). Joint Statistical Meetings, August 2021.
6. Fostering data reuse: increasing impact and ease in sharing and reusing data (with Alyssa Mikytuck), Data Sharing Seminar Series for Societies, August 2021.  
  
Nusser, Sarah, Mikytuck, Alyssa, Seger, Yvette, & Stall, Shelley. (2021, August 6). Fostering Data Reuse: Increasing Impact and Ease in Sharing and Reusing Data. Zenodo.  
<https://doi.org/10.5281/zenodo.5168026>
7. Data sharing task force at Iowa State University (moderator and panelist), Making Priorities Visible & Establishing a Plan, AAU-APLU Conversation Series on Accelerating Public Access to Research Data, [online](#), May 5, 2021.
8. Encouraging uptake of data sharing in the scientific community (panel member), Changing the Culture of Data Management and Sharing: A Workshop, National Academies of Sciences, Engineering and Medicine, [online](#), April 2021
9. Accelerating public access to research data (closing remarks on open science), North Carolina Summit on Accelerating Public Access to Research Data, [online](#), April 2021
10. Researcher perspectives on practices for producing shared research data, NSF Workshop on Public Access to Research Data, [online](#) (not recorded), February 2021
11. Accelerating public access to research data: a guide for change in research universities, Forum on New Connections: Research Data to Content, CHORUS, [online](#), January 2021
12. Academic perspectives on sharing research data, Forum on Open Access Policies and Compliance in a Global Context, CHORUS, [online](#), July 2020

#### **EXTERNAL COMMITTEES, COUNCILS AND BOARDS**

2023 Ex-officio member (as BRDI chair), Policy and Global Affairs Committee, National Academies of Science, Engineering and Medicine

- 2016-2023 Chair (2021-2023) / Vice Chair (2020) / Member, Board on Research Data and Information (BRDI), National Academies of Science, Engineering and Medicine
- 2022 Advisor, Research Enhancement Project, Jobs and Employment Data Exchange (JEDx) Initiative, US Chamber of Commerce Foundation
- 2021-present Member, Research Data Framework (RDaF) Steering Committee, Office of Data and Informatics, National Institute of Standards and Technology
- 2019-2022 Chair (2020-2022) and Member, Steering Committee, AAU-APLU Accelerating Public Access to Research Data Project
- 2021 Member, Committee of Visitors for the Social and Economic Sciences Division, Directorate for Social and Behavioral and Economic Sciences, National Science Foundation
- 2020-2021 Member, National Advisory Panel, National Community Learning Network
- 2019-2021 Member, Consensus Panel for *Transparency and Reproducibility of Federal Statistics*, National Academies of Science, Engineering and Medicine
- 2019-2021 Member, National Institutes of Health Advisory Committee to the Director Working Group on Enhancing Rigor, Transparency and Translatability in Animal Research
- 2020 Member, Planning Committee for Developing a Toolkit for Fostering Open Science Practices: A Workshop, National Academies of Science, Engineering and Medicine
- 2020 Member, Committee on Seventh Edition of Principles and Practices for a Federal Statistical Agency, National Academies of Science, Engineering and Medicine

### **RESEARCH ADMINISTRATION (ISU, 2014-2020)**

#### **VICE PRESIDENT FOR RESEARCH (2014-2020)**

As Vice President for Research for Iowa State University, Nusser led efforts to advance and support the research mission at Iowa State University, engaging in partnerships with colleges and other units at ISU. Developed interdisciplinary research portfolio through small and large-scale initiatives, increasing external research funding by 27% and establishing four new externally sponsored research centers. She engaged with national associations to promote open science and address research policy issues, and created campus programs for faculty research development, sponsored research support, and ethical research practice. In her capacity as VPR, Nusser oversaw several interdisciplinary research centers and service units for sponsored funding, research integrity, and research facilities.

#### **EXTERNAL COMMITTEES, COUNCILS AND BOARDS**

- 2019-2020 Member, Senior Research Officer Meeting Planning Committee, Association of American Universities

- 2017-2020 Chair (2020), Chair-Elect (2019), Member (2017-2018) of Executive Committee, Council on Research, Association for Public and Land-Grant Universities
- 2014-2020 Member, Committee on National Statistics (CNSTAT), National Academies of Science, Engineering and Medicine
- 2018-2019 Member, Organizing Committee for AAU-APLU NSF Workshop to Accelerate Public Access to Research Data
- 2016-2019 Co-chair, Public Access Working Group, Association of American Universities (planning and advocacy for open access publications and data sharing)
- 2018 Member, Steering Committee, Iowa Bioscience Platforms, Iowa Economic Development Authority
- 2016-2017 Member, Committee to produce the Sixth Edition of *Principles and Practices for a Federal Statistical Agency*, National Academies of Science, Engineering and Medicine
- 2015-2016 Member, Senior Research Officer Meeting Planning Committee, Association of American Universities

#### **IOWA STATE UNIVERSITY COMMITTEES, COUNCILS AND CABINETS**

- 2020 Co-chair, Research Working Group, Emergency Operations Committee (COVID)
- 2019-2020 Member, Improved Service Delivery Advisory Committee
- 2017-2020 Chair, Ames Laboratory Scientific Advisory Committee
- 2015-2020 Member, United Way Iowa State University Leadership Committee
- 2014-2020 Member, Provost's Council
- 2014-2020 Member, President's Cabinet
- 2018-2019 Co-chair, Institutional Effectiveness Leadership Team
- 2018-2019 Co-chair, Ames Laboratory Chief Research Officer Search Committee
- 2017-2018 Co-chair, Iowa State University Vice President for Extension and Outreach Search Committee
- 2016 Member, Senior Vice President for University Services Search Committee

#### **ADVISORY BOARDS**

- 2019-2020 Member (ex officio), Iowa Bioscience Development Corporation Advisory Board
- 2017-2020 Member, Joint BioEnergy Institute, JBEI Board of Directors (DOE Bioenergy Research Center led by Lawrence Berkeley National Laboratory)

- 2014-2020 Member, Advisory Board, Iowa State University Research Foundation
- 2014-2020 Member, Advisory Board, Iowa State University Research Park
- 2015-2019 Member, Advisory Board, College of Public Health, University of Iowa

## REPORTS

Redd, K. J., Steen, K., Nusser, S., Smith, T., Walters, T., Chasen, J., Luther, J., and Reecy, J. 2019. Accelerating Public Access to Research Data: Workshop Report. Washington, District of Columbia: Joint publication by the Association of Public and Land-grant Universities and Association of American Universities. DOI: <https://doi.org/10.31219/osf.io/63mxh>.

Association of American Universities and Association of Public and Land-grant Universities. 2017. *AAU-APLU Public Access Working Group Report and Recommendations*. Washington, DC. Available at <https://www.aau.edu/sites/default/files/AAU-Files/Key-Issues/Intellectual-Property/Public-Open-Access/AAU-APLU-Public-Access-Working-Group-Report.pdf>

## ARTICLES

Daniel S. Katz, Gabrielle Allen, Lorena A. Barba, Devin R. Berg, Holly Bik, Carl Boettiger, Christine L. Borgman, C. Titus Brown, Stuart Buck, Randy Burd, Anita de Waard, Martin Paul Eve, Brian E. Granger, Josh Greenberg, Adina Howe, Bill Howe, May Khanna, Timothy L. Killeen, Matthew Mayernik, Erin McKiernan, Chris Mentzel, Nirav Merchant, Kyle E. Niemeyer, Laura Noren, Sarah M. Nusser, Daniel A. Reed, Edward Seidel, MacKenzie Smith, Jeffrey Spies, Matt Turk, John D. Van Horn, and Jay Walsh. 2019. [The principles of tomorrow's university](#). *F1000Research*, 7:1926.

S. Keller, S. Nusser, Stephanie Shipp, C. E. Woteki. 2018. [Helping communities use data to make better decisions](#). *Issues in Science and Technology*. Spring 2018.

Shipp, S., C. Woteki, S. Keller, S. M. Nusser. 2017. [How to put data to work in your neighborhood](#). *The Conversation*, December 10, 2017.

## OPINIONS

[Leverage university research to expand Iowa's bioscience economy](#), *Des Moines Business Record*, August 10, 2018

[Federal funds are a wise investment](#), *The Cedar Rapids Gazette*, April 23, 2017

## PRESENTATIONS

1. US perspectives on research data sharing, Research Data Rights Summit, Sorbonne Université, January 2020
2. Embracing open scholarship at research universities, Transforming Research Conference, Washington, DC, September 2019

3. How can funders help researchers and universities accelerate public access to research data, Research Funders Summit, Washington, DC, October 2018
4. Motivating campus to embrace open scholarship, Merrill Research Retreat, Nebraska City, NE, July 2018
5. New VPRs orientation (panelist), Council on Research Annual Meeting, Association for Public and Land Grant Universities, State College, PA, June 2018
6. AAU-APLU Public Access Working Group update, Council on Research Summer Meeting, Association of Public and Land Grant Universities, Reno NV, July 2017
7. New VPRs orientation (panelist), Council on Research Summer Meeting, Association of Public and Land Grant Universities, Reno NV, July 2017
8. Open data: perspectives from academia, Board on Research Data and Information, National Academies, Washington, DC, October 2016
9. Assessing federal agency public access data policies and what they will mean for research universities, Chief Academic Officers Meeting, Association for American Universities, Laguna Beach, CA, September 2016
10. Public access implementation from an institutional perspective, National Council of University Research Administrators Annual Meeting, discussion panel with J. Sebeok (AAU) and J. Chasen (U Kansas), Washington, DC, August 2016
11. New VPRs orientation (panelist), Council on Research Annual Meeting, Association for Public and Land Grant Universities, Morgantown, WV, August 2016
12. Open science and the need for education about data, Department Chairs Workshop, American Statistical Association, Alexandria, VA, July 2016
13. Assessing Federal Agency Public Access Data Policies and What They Will Mean for Research Universities, Senior Research Officers Meeting, Association for American Universities, co-led with P. Schiffer (U Illinois, Urbana-Champaign), Laguna Beach, CA, March 2016
14. The National Resources Inventory: the potential of small survey programs to break new ground. Committee on National Statistics, National Academies, Washington, DC February 2016
15. The Midwest Big Data Hub, Iowa Innovation Council, Des Moines, IA, January 2016
16. A newcomer's view of research administration in uncertain times, Merrill Research Retreat, Nebraska City, NE, July 2014

## **FUNDING**

1. BD Hubs: Collaborative Proposal: Midwest: Midwest Big Data Hub: Building Communities to Harness the Data Revolution. NSF (1916391). PI: J. Reecy, Co-PIs: J. Colletti, S. Nusser, C. Lawrence-Dill, 06/01/2019-5/31/2023, \$98,792. (co-PI relinquished in 2020)
2. BD Hubs: Midwest: SEEDCorn: Sustainable Enabling Environment for Data Collaboration Seed Corn. NSF (1550320) – subcontract from U Illinois Urbana-Champaign prime. PI: S. M. Nusser, 10/1/15 – 8/31/19, \$220,328.
3. I3: Strengthening the professorate at Iowa State University: a campus network to enable strong science and diverse communities. NSF (0963584). PI: S.M. Nusser, Co-PIs: D.T. Rover, M.C. Shelley, B.S. Bowen, 4/2/10 – 12/31/17, \$1,248,727.



## RESEARCH, TEACHING, PROFESSIONAL PRACTICE (ISU, through 2013)

### CENTER ADMINISTRATION

Director (1992-2004, 2007-2010), ISU Center for Survey Statistics and Methodology (previously Statistical Laboratory Survey Section). Directed the ISU-USDA Natural Resources Conservation Service cooperative agreement activities for the National Resources Inventory (1992-2014), a long-standing cooperative agreement at approximately \$3 million per year, and numerous other sponsored research and survey projects. Oversaw center staffing, activities of 5 faculty, 10-12 graduate students, and 25 methodology and survey systems staff.

### 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. [PI transferred to E. Berg in 2014]
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. [PI transferred to C. L. Yu in 2014]
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. [PI transferred to J-K. Kim in 2014]
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. [PI transferred to Z. Zhu in 2014]

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 grazing land surveys, USDA Natural Resources Conservation Service. PI: S. M. Nusser, Co-PI: Cindy Yu. 7/1/12 – 6/30/13, \$150,000.
6. A measurement error approach to estimating usual daily physical activity distributions, National Institutes of Health. PI: G. Welk. Co-PIs: S. Nusser, A. Carriquiry. 9/15/2008-5/31/2014, \$2,468,635.

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. 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.
10. 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).
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

10/1/99 - 9/30/00

338,000

10/1/95 - 9/30/96

644,570

10/1/98 - 9/30/99	600,000	10/1/94 - 9/30/95	620,960
10/1/97 - 9/30/98	664,000	10/1/93 - 9/30/94	423,640
10/1/96 - 9/30/97	540,000	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.

## REFEREED PUBLICATIONS

1. Beyler, N., W. Fuller, S. Nusser, and G. Welk. 2015. Predicting objective physical activity from self-report surveys: a model validation study using estimated generalized least-squares regression, *Journal of Applied Statistics*, 42(3), 555-565.

2. Welk, G.J., Y. Kim, B. Stanfill, D.A. Osthus, M. Calabro, S. Nusser, and A. Carriquiry. 2014. Validity of 24 hour physical activity recall: Physical Activity Measurement Survey. *Medicine and Science in Sports and Exercise* 46(10) doi:10.1249/MSS.0000000000000314.
3. 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.
4. S.M. Nusser. 2013. National Resources Inventory (NRI), US. *Encyclopedia of Environmetrics*, A.-H. El-Shaarawi and W. Piegorsch (eds), John Wiley & Sons Ltd: Chichester, UK. DOI: 10.1002/9780470057339.van004.pub2. Published online 1/15/2013.
5. S.M. Nusser and S. Zimmer. 2013. Sampling agricultural resources. *Encyclopedia of Environmetrics*, A.-H. El-Shaarawi and W. Piegorsch (eds), John Wiley & Sons Ltd: Chichester, UK. DOI: 10.1002/9780470057339.vnn032. Published online 1/15/2013.
6. 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.
7. Rusch, M. L., S. M. Nusser, L. L. Miller, G. I. Batinov, K. C. Whitney. 2012. Spatial ability and map-based software applications. *The 5<sup>th</sup> International Conference on Advances in Computer-Human Interactions*. Valencia, Spain. pp. 35-40.
8. Nusser, S. M., Beyler, N. K., Fuller, W. A., Carriquiry, 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.
9. 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.
10. 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.
11. 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.
12. 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.
13. 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.
14. 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.
15. 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>

16. 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.
17. 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>.
18. 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.
19. Nusser, S. M. 2007. Using geospatial information resources in sample surveys. *Journal of Official Statistics*, 23:285-289. (Discussion for Morris Hansen Lecture)
20. 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.
21. 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.
22. 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.
23. 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. *Hort Technology* 16:312-317.
24. 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.
25. 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.
26. 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.
27. 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.
28. Nusser, S. M. and E. E. Klaas. 2003. Survey methods for assessing land cover map accuracy. *Environmental and Ecological Statistics*. 10(3):309-331.
29. 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.
30. 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.

31. 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.
32. 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.
33. 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.
34. 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.
35. Opsomer, J. D. and S.M. Nusser. 1999. Sample designs for watershed assessment. *Journal of Agricultural, Biological and Environmental Statistics* 4:429-442.
36. 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.
37. 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.
38. 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.
39. Nusser, S. M. and J. J. Goebel. 1997. The National Resources Inventory: a long-term multi-resource monitoring program. *Environmental and Ecological Statistics* 4:181-204.
40. 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.
41. 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.
42. 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.
43. 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.
44. 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.
45. 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.

46. 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.
47. 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.
48. 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. Nusser, S. M., A. Vardeman, A. W. Dotts. 2015. Geospatial data collection in the US National Resources Inventory. Proceedings of the Sixth International Conference on Agricultural Statistics, October 23-25, 2013, Rio de Janeiro, Brazil.
2. Jensen, H., Garasky, S., Wessman, C., Nusser, S. M., & Dagata, E. 2015. Iowa Food Stamp Leavers Survey: Final Report. USDA Economic Research Service-EFAN02014-1.
3. 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)
4. 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]
5. 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]
6. 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]
7. 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]
8. 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]
9. 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.fcs.gov/05papers/Nusser\\_IXA.pdf](http://www.fcs.gov/05papers/Nusser_IXA.pdf)
10. 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]
11. 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]
12. Nusser, S. M. 2004. Computer-assisted data collection for geographic features. *Proceedings of the Section on Survey Research Methods*, American Statistical Association. [CD-ROM]

13. 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]
14. 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.
15. 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]
16. 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]
17. 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.
18. 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.
19. Nusser, S. M., L. L. Miller, M. F. Goodchild, K. Clarke. 2002. A user-centered framework for next-generation field data collection. *Proceedings of dg.o 2002 National Conference on Digital Government Research*, Los Angeles, CA. p. 8.
20. Miller, L., S. Qu, H. Ming, S. M. Nusser, H.C. Butler, P. Zhao. 2002. Infrastructure designs for using geospatial data in mobile computing environments. *Proceedings of dg.o 2002 National Conference on Digital Government Research*, Los Angeles, CA. pp. 411-413.
21. Nusser, S. M., E. E. Klaas, C. H. Botts, and R. McNeeley. 2001. A methodological study for accuracy assessment of GAP land cover maps. *GAP Bulletin*, 10: 13-19.
22. Nusser, S. M. 2001. Challenges in Geospatial Information Technologies for Field Survey Data Collection. White paper for Workshop on the Intersection of Geospatial Information and Information Technology, National Academies Computer Science and Telecommunications Board, Washington, D.C. [http://www7.nationalacademies.org/cstb/wp\\_geo\\_nusser.pdf](http://www7.nationalacademies.org/cstb/wp_geo_nusser.pdf)
23. Nusser, S. M. and J. Fox. 2001. Using geospatial information to locate sample units in the field. *Proceedings of the Federal Committee on Statistical Methods 2001 Research Conference*, Washington, D.C. [http://www.fscm.gov/01\\_papers/Nusser.pdf](http://www.fscm.gov/01_papers/Nusser.pdf).
24. Nusser, S., L. Miller, K. Clarke, M. Goodchild. 2001. Future views of field data collection in statistical surveys. *Proceedings of 2001 National Conference on Digital Government Research*, Los Angeles, CA. <http://www.isi.edu/dgrc/dgo2001/papers/session-3/nusser1.pdf>.
25. Anderson, L. L., J. M. Larson, D. G. Anderson and S. M. Nusser. 2001. Overview of Blaise at the Iowa State University Statistical Laboratory. *Proceedings of the 7<sup>th</sup> International Blaise User's Conference*, Washington, D.C. [http://www.blaiseusers.org/ibucpdfs/2001/L\\_Anderson--IBUC\\_paper.pdf](http://www.blaiseusers.org/ibucpdfs/2001/L_Anderson--IBUC_paper.pdf).
26. Drignei, D. and S. M. Nusser. 2000. On reducing the number of items in the Food Security Supplement for measuring food insecurity. *Proceedings of the Section on Government Statistics and Section on Social Statistics*, American Statistical Association. p. 225-230.
27. Nusser, S. M. 1999. Mobile CASIC and the survey process. *Proceedings of the Third International Association for Survey Computing Conference*, Edinburgh, Scotland. p. 209-218.



28. Fletcher, C.N. and S. M. Nusser. 1999. Conducting a feasibility study for a nationally-consistent, state-level survey of child and family well-being under new welfare policies. In Irene Leach (ed.), *Consumer Interests Annual*, Volume 45, American Council on Consumer Interests. Chicago, IL. p. 130. (abstract)
29. Nusser, S. M. and D. M. Thompson. 1998. Web-based survey tools. *1998 Proceedings of the Section on Survey Research Methods*, American Statistical Association, p. 951-956.
30. Bakker, K. K., K. F. Higgins, D. E. Naugle, and S. M. Nusser. 1998. Effects of tract size and surrounding land use on avian species in a South Dakota agricultural landscape. 60<sup>th</sup> Midwest Fish and Wildlife Conference, Cincinnati, p. 207 (abstract).
31. Nusser, S. M., A. L. Carriquiry, and H. H. Jensen. 1997. Usual intake distributions in risk assessment for food residues. *1997 Proceedings of the Section on Statistics and the Environment*, American Statistical Association, p. 13-18.
32. Nusser, S. M. 1997. The USDA's Continuing Survey of Food Intakes by Individuals: issues and applications (discussion). *1997 Proceedings of the Section on Survey Research Methods*, American Statistical Association, p. 817-819.
33. Wang, J., S. M. Nusser, and W. R. Clark. 1997. Analyzing ecological trends with multiple natural resource databases. *1997 Proceedings of the Biometrics Section*, American Statistical Association, p. 216-221.
34. Abbitt, P. J., F. J. Breidt, and S. M. Nusser. 1997. A nonlinear two-phase predictor for soil survey updates. *1997 Proceedings of the Section on Survey Research Methods*, American Statistical Association, p. 657-660.
35. Nusser, S. M. 1997. A CASIC system using hand-held computers and centralized data servers. *Proceedings of the International Statistical Institute* (contributed papers).
36. Nusser, S. M. and D.M. Thompson. 1997. Networked hand-held CASIC. *Proceedings of Symposium 97: New Directions in Surveys and Censuses*, Statistics Canada, p. 361-364.
37. Naugle, D. E., K. F. Higgins, S. M. Nusser. 1997. Effects of woody hydrophytes on prairie wetland birds. 59<sup>th</sup> Midwest Fish and Wildlife Conference, Milwaukee, p. 277 (abstract).
38. Nusser, S. M., D. M. Thompson, and G. S. DeLozier. 1996. Using personal digital assistants to collect survey data. *1996 Proceedings of the Section on Survey Research Methods*, American Statistical Association, p. 780-785.
39. Nusser, S. M. 1995. Sampling issues in regional monitoring programs. *1995 Proceedings of the Biometrics Section*, American Statistical Association, p. 68-70.
40. Abbitt, P. J., and S. M. Nusser. 1995. Sampling approaches for soil survey updates. *1995 Proceedings of the Section on Statistics and the Environment*, American Statistical Association, p. 87-92.
41. Carr, D. B., and S. M. Nusser. 1995. Converting tables to plots: a challenge from Iowa State. *Statistical Computing and Graphics Newsletter*, p. 11-18.
42. Nusser, S. M. 1994. Estimating usual food intake distributions from 24-hour dietary intake data. *1994 Proceedings of the Section on Epidemiology*, American Statistical Association, p. 49-58.
43. Leonard, K. A., A. B. An, S. M. Nusser, and F. Jay Breidt. 1994. Approximating the variance of the survey regression estimator using poststratification. *1994 Proceedings of the Section on Survey Research Methods*, American Statistical Association, p. 222-227.
44. Nusser, S. M. and T. R. Wentworth. 1987. Relationships among first-year loblolly pine seedling performance, vegetative regrowth, environmental conditions and plantation management practices. In D.

R. Phillips (editor), *Proceedings of the Fourth Biennial Southern Silvicultural Research Conference*, November 4-6, 1986, Atlanta, GA. General Technical Report SE-42, USDA Forest Service, Southeastern Forest Experiment Station, Asheville, NC, p. 565-575.

## TECHNICAL REPORTS

1. Jensen, H., Garasky, S., Wessman, C., Nusser, S. M., & Dagata, E. 2015. Iowa Food Stamp Leavers Survey: Final Report. USDA Economic Research Service-EFAN02014-1.
2. Nusser, S. M., C. L. Yu, T. Krueger, S. Roberts, J. Li. 2013. Sample design, survey data collection systems, and statistical estimation for the 2011 Bureau of Land Management Rangeland Survey. Prepared for the Bureau of Land Management. 46 pp.
3. Larson, J. M. , J. Legg, and S. M. Nusser. 2008. Iowa State University caucus polls methodology report. Prepared for ISU Caucus Poll Working Group (led by J. McCormick). 23 pp.
4. 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.
5. Larson, J., S. M. Nusser, and C. J. Alf. 2007. A survey of farming practices and cover crop use: methodology and analysis report. Report prepared for J. Singer, USDA Soil Tilth Laboratory. 14 pp.
6. Gibson, C. and S. M. Nusser. 2006. Assessing the role of spatial abilities in address canvassing activities. Final Report for 2006 Census Test Evaluation #3. U.S. Census Bureau. 32 pp.
7. Fuller, W. A., S. M. Nusser, and J. Legg. 2004. 2005 NRI calibration experiment. Report prepared for the USDA Natural Resources Conservation Service. 8 pp.
8. Nusser, S. M. 2003. Methodological research on mobile computing tools for field data collection. Report prepared for the American Statistical Association Census Bureau Advisory Committee. 6 pp.
9. 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.
10. Drignei, D. and S. M. Nusser. 2003. Alternative measures of food security using a reduced question set: analysis of 1999 Food Security Supplement data. For USDA Economic Research Service. 84 pp.
11. Jensen, H. H., S. Garasky, C. Wessman, and S. M. Nusser. 2002. Iowa Food Stamp Leavers Survey: Final Report. For USDA Economic Research Service, ERS E-FAN No. 02014-1, <http://www.ers.usda.gov/publications/efan02014-1/>. 50 pp.
12. Nusser, S. M. and E. E. Klaas. 2001. GAP accuracy assessment pilot study. For Environmental Protection Agency. 61 pp.
13. Anderson, L. L., S. M. Nusser, and D. G. Anderson. 2001. Survey methodology report for the Iowa Transportation and Employment Survey. 42 pp.
14. Nusser, S. M., C. N. Fletcher, and H. H. Jensen. 2001. Considerations for designing state surveys to support integration with national survey data: final report. For Department of Health and Human Services and the USDA Economic Research Service. 138 pp.
15. Nusser, S. M., C. N. Fletcher, and D. G. Anderson. 2000. The Iowa Survey of Program Dynamics feasibility study. For the Census Bureau. 32 pp.

16. Nusser, S. M., L. L. Anderson, and D. G. Anderson. 2000. Iowa Food Stamp Leavers Survey methodology report. For the USDA Economic Research Service (Published in 2002 as ERS E-FAN No. 02014-2, <http://www.ers.usda.gov/publications/efan02014-2/>). 60 pp.
17. Nusser, S. M. and M. Bachan. 1999. Sample design recommendations for the Iowa Gender Wage Equity Survey. For Iowa Workforce Development. 3 pp.
18. Opsomer, J. D., H. H. Jensen, S. M. Nusser, D. Drignei, and Y. Amemiya. 1999. Statistical Considerations for the USDA Food Insecurity Index. For USDA Economic Research Service.
19. Nusser, S. M., J. M. Kienzler, W. A. Fuller. 1999. Geostatistical estimation data for the 1997 Natural Resources Inventory. For Natural Resources Conservation Service. 5 pp.
20. Nusser, S. M. 1999. Geostatistical control data for the 1997 National Resources Inventory. For Natural Resources Conservation Service. 39 pp.
21. Nusser, S. M. and J. Schumi. 1999. Sample selection procedures for the nursing home care review committee volunteer survey. For Pat Keith, Iowa State University Department of Sociology. 2 pp.
22. Opsomer, J., D. Anderson, S. Nusser, S. Fernandez. 1999. Voice disorder survey final methodology report. For Elaine Smith and Jon Lemke, University of Iowa. 17 pp.
23. 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.
24. Nusser, S. M., and A. L. Carriquiry. 1998. Sampling approaches for nutrient data bases. For Nutrient Data Laboratory, USDA Agricultural Research Service. 23 pp.
25. Opsomer, J. D., and S. M. Nusser. 1998. Sampling design for NRCS watershed health assessment study. For Natural Resources Conservation Service Watershed Sciences Institute. 17 pp.
26. Opsomer, J. D., S. Sinharay, and S. M. Nusser. 1998. Report on the first phase of the survey of the Rocky River and Saluda River watersheds. For Natural Resources Conservation Service Watershed Sciences Institute. 24 pp.
27. Opsomer, J. D., S. Fernandez, and S. M. Nusser. 1998. Student satisfaction survey: sampling and analysis. For the Iowa State University Office of Institutional Research. 12 pp.
28. Nusser, S. M., and D. G. Anderson. 1997. Membership and consultant evaluator surveys; summary of methods and response rates. For the North Central Association of Colleges and Schools. 2 pp.
29. 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.
30. 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.
31. Nusser, S. M., A. N. Williams, and D. G. Anderson. 1997. 1997 Survey of Iowa State University graduating seniors: study methods. For the Iowa State University Office of Institutional Research. 6 pp.
32. Williams, A. N., D. G. Anderson, and S. M. Nusser. 1997. A study of physical activity and nutritional experiences of Ames area residents. For Warren Franke, Health & Human Performance. 2 pp.
33. 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.

34. 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.
35. 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.
36. 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.
37. Nusser, S. M. 1996. Weight calculation for the RDI household study. For Terry Besser, Department of Sociology, Iowa State University. 9 pp.
38. 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.
39. Nusser, S. M. and F. J. Breidt. 1996. Sample design recommendations for Minnesota fish contamination studies. For Minnesota Department of Natural Resources. 27 pp.
40. 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.
41. Nusser, S. M. 1995. International Alumni Study sampling plan. For Martha Vanderkamp, Iowa State University Foundation. 3 pp.
42. Nusser, S. M., K. Wright, and T. A. Genalo. 1995. The use of instructional television in primary and secondary Iowa schools. For Iowa Public Television. 44 pp.
43. Nusser, S. M., T. A. Genalo, H. Shierholz, M. Haubrich, D. L. Hopper, D. O. Lewis, and S. R. Weiss. 1995. Faculty use of instructional computing resources at Iowa State University. For Iowa State University Computation Advisory Committee. 110 pp.
44. Nusser, S. M., T. A. Genalo, J. Kim, M. Haubrich, D. L. Hopper, D. O. Lewis, and S. R. Weiss. 1995. Student use of instructional computing resources at Iowa State University. For Iowa State University Computation Advisory Committee. 75 pp.
45. Nusser, S. M. 1995. Options for future studies of campus diversity issues. For the Iowa State University Committee on Diversity. 6 pp.
46. Opsomer, J. and S. M. Nusser. 1995. Faculty Activity Survey, 1994-1995. For Robert Bergmann, Institutional Research, Iowa State University. 1 p.
47. 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.
48. 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.
49. 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.
50. 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.
51. Baker, H. D., M. A. Genalo, and S. M. Nusser. 1994. Summary of results from the 1994 survey of former Statistics graduate students. For the Iowa State University Department of Statistics. 32 pp.

52. Nusser, S. M., A. M. McVey, and W. A. Fuller. 1993. Sample design and wage rate estimation for the 1992 Iowa Wage Survey. For the Iowa Department of Employment Services. 11 pp.
53. 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.
54. 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.
55. Nusser, S. M., A. L. Carriquiry, and W. A. Fuller. 1992. A semiparametric transformation approach to estimating usual daily intake distributions. CARD Working Paper 92-WP 99.
56. 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.
57. 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.
58. 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, Santa 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)**

Directed CSSM (and predecessor Statistical Laboratory Survey Section) 1992-2004 and 2007-2010.

Directed the ISU-USDA Natural Resources Conservation Service cooperative agreement activities for the National Resources Inventory (1992-2014), totaling approximately \$3 million per year. Also directed more recent ISU-Bureau of Land Management and ISU-USDA National Agricultural Statistics Service cooperative agreement activities through 2014. Projects involved 5 survey statistics faculty, 5-9 graduate students, 25 methodology and survey systems staff.

Consulted with on- and off-campus researchers on sample design, questionnaire development, coding, data quality, 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.

## 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 Arroway (Fall 1995)
14. Zugeng Zheng (Summer 1995)
15. Kelli Leonard (Spring 1994)
16. Stephanie Schaller (Fall 1993)

### *Major Professor: PhD*

1. Stephanie Zimmer (2018, 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, 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 Arroway (1999, co-directed with F. J. Breidt)

### MEMBERSHIPS (STATISTICS)

American Statistical Association  
 International Association of Survey Statisticians  
 International Statistical Institute

### EXTERNAL PROFESSIONAL SERVICE

- |           |   |
|-----------|---|
| 2013-2015 | Member, Scientific Advisory Committee, Global Strategy to Improve Agricultural and Rural Statistics, UN Food and Agriculture Organization   |
| 2014      | Member, Steering Committee on Data and Research to Improve the U.S. Food Availability System and Estimates of Food Loss: A Workshop, National Research Council                                  |
| 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

## **IOWA STATE UNVIERSITY PROFESSIONAL SERVICE**

### ***University Programs and Committees***

- 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)
- 1999-2010 GIS Facility Steering Committee
  - 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