

May, 2012

**ALICIA L. CARRIQUIRY
RESUME**

Department of Statistics
Iowa State University
Ames, IA 50011-1210, USA
Phone: (515)294-3440 or (515)294-7782
Fax: (515)294-4040
E-mail: alicia@iastate.edu



EDUCATION

- Ph.D. in Statistics and Animal Science, Iowa State University, May 1989.
- M.Sc. in Statistics, Iowa State University, December 1986.
- M.Sc. in Animal Science, University of Illinois at Urbana, May, 1985.
- Ing. Agr., Universidad de la República, Uruguay, December, 1981.

EXPERIENCE

Associate Provost, (three quarter-time appointment), Iowa State University, January 2000 – June 2004.

Director of Graduate Education, Department of Statistics, Iowa State University, August 2004 to date.

Associate Chair, Department of Statistics, Iowa State University, August 2008 to date.

Distinguished Professor, Department of Statistics, Iowa State University, July 2010.

Professor, Department of Statistics, Iowa State University, July 2001.

Associate Professor, Department of Statistics, Iowa State University, July 1995 – July 2001.

Assistant Professor, Department of Statistics, Iowa State University, August 1990 - July 1995.

Adjunct Professor, MS Program in Bioinformatics and Biological Statistics, Universidad de la República del Uruguay, Montevideo, Uruguay, March 2009 to date.

Adjunct Professor, Doctoral Program in Statistics, Pontificia Universidad Católica de Chile, Santiago, Chile, July 2007 to date.

Visiting Professor, Institute of Statistics and Decision Sciences, Duke University, Spring 1997.

Visiting Professor, Department of Statistics, Pontificia Universidad Católica de Chile, Santiago, Chile, Fall 1993, Fall, 1996 and 2007-2008.

Post-doctoral Research Associate, Department of Economics and CARD, Iowa State University, January - August, 1990.

SERVICE (since 1993)

Editorial Activities:

Editor, *Electronic Encyclopedia of Statistics*, September 2009 – date. In representation of the International Statistical Institute.
Associate Editor, *The Annals of Applied Statistics*, January 2007 – December 2010.

Editor, *Bayesian Analysis*, July 2003 – June 2006.

Editor, *Statistical Science*. January 1998 – December 2007.

Editorial Board, *Case Studies in Bayesian Statistics IV, V, VI, VII, VIII*. September 1997 – August 2008

National Panels and Committees and Advisory Boards:

National Academy of Sciences, Committee on Advancing Institutional Transformation for Minority Women in Academia: a Workshop. 2011 – 2012.

National Academy of Sciences, Committee to Assess the Feasibility of Estimating the Number of Illegal Border Crossings between Mexico and the United States. 2011 – 2012. Appointed Chair of the committee.

US Environmental Protection Agency, Scientific Advisory Board, 2012 – 2014.

Institute of Medicine, Committee to Review the Child and Adult Care Food Program, 2009 – 2010.

National Academy of Sciences, Vitamin D and Calcium Review Committee (consultant). 2009 – 2010.

National Academy of Sciences, Standing Committee on National Statistics (CNSTAT). 2008-2013.

National Academy of Sciences, Standing Committee on Social Science Evidence to Use in Policy Decision-Making. 2007-2012.

US Environmental Protection Agency, Human Studies Review Board, 2006-2008.

National Academy of Sciences, Committee on Assessing the Technical Feasibility of a National Ballistics Database, 2004-2007.

National Academy of Sciences, Standing Committee on Theoretical and Applied Statistics. 2003 – 2006.

National Academy of Sciences, Committee on Gender Differences in the Careers of Science, Engineering and Mathematics Faculty, 2004-2007.

National Academy of Sciences, Board on Technology and the Law: Advisability and Ethics of the Use of Third Party Intentional Dosing Studies with Human Subjects by the Environmental Protection Agency. 2002 – 2003.

National Research Council, Committee on National Statistics: Estimating Eligibility and Participation Rates in the Women and Infant Children (WIC) Program. 2000 – 2003.

Food and Nutrition Board, Institute of Medicine, National Academy of Sciences: Committee on Uses and Interpretations of Dietary Reference Intakes. 1997 - 2003.

Conferences: Organizing or Program Committees:

XII Latin American Congress on Probability and Mathematical Statistics, Program Committee member. Caracas, Venezuela, November 2009.

XI Latin American Congress on Probability and Mathematical Statistics, Program Committee member. Caracas, Venezuela, November 2009.

StatFest. Organizing Committee member. University of Iowa, September 2009.

Case Studies in Bayesian Statistics IX Workshop. Program Committee member. Carnegie Mellon University, September, 2007.

X Latin American Congress on Probability and Mathematical Statistics, Scientific Committee member. Lima, Peru, February 2007.

Case Studies in Bayesian Statistics VIII Workshop. Program Committee member. Carnegie Mellon University, September, 2005.

ISBA Eighth World Meeting, Chair of Finance Committee. Vina del Mar, Chile, May 2004.

IX Latin American Congress on Probability and Mathematical Statistics, Program Committee member. Punta del Este, Uruguay, March 2004.

First IMS-ISBA Workshop. Program Committee. University of Puerto Rico, July, 2003.

Case Studies in Bayesian Statistics VII Workshop. Program Committee member. Carnegie Mellon University, September, 2003

Case Studies in Bayesian Statistics VI Workshop. Program Committee member. Carnegie Mellon University, September 28 - 29, 2001.

Conference in Honor of Wayne A. Fuller's 70th Birthday, Organizing Committee member. Iowa State University, June 21 - 22, 2001.

ISBA 2000. World Meeting of the *International Society for Bayesian Analysis*. Co-chair of the Financial Committee. Member of the Scientific Committee. Crete, May 28 - June 2, 2000.

Case Studies in Bayesian Statistics V Workshop. Program Committee member. Carnegie Mellon University, September 24- 25, 1999.

Program Chair, 1999 Joint Statistical Meetings. Baltimore, August 8 - 12, 1999.

VII Latin American Congress on Probability and Mathematical Statistics (CLAPEM). Scientific Committee member. Córdoba, Argentina, September 21-25, 1998.

Statistics for Correlated Data A Conference Marking the 50th Anniversary of the Department of Statistics at Iowa State University. Program Committee member. October 16-19, 1997, Ames, Iowa.

Case Studies in Bayesian Statistics IV Workshop. Program Committee member. Carnegie Mellon University, September 25-26, 1997.

Joint Statistical Meetings, Program Chair for the Biometrics Section. Anaheim, California, August 10-14, 1997.

VI Latin American Congress on Probability and Mathematical Statistics (CLAPEM) *New Directions for Stochastic Processes*. Scientific Committee member. Viña del Mar, Chile, November 21-24, 1995.

Conference in Honor of Herbert A. David's 70th Birthday, Organizing Committee member. Ames, Iowa, November 17-18, 1995.

III World Meeting of the International Society for Bayesian Analysis (ISBA), Scientific Committee member. Oaxaca, Mexico, September 28-30, 1995.

II Congreso Iberoamericano de Estadística, Scientific Committee member. Oaxaca, Mexico, September 23-28, 1995.

V Colombian Symposium on Statistics, Scientific Committee member. Santa Marta, Colombia, June 6-12, 1995.

Academic review, advisory and visiting committees:

External Review Committee, Graduate Program in Statistics, University of Toronto, Canada, October 2009.

External Review Committee, Department of Statistics, Universidad de la República del Uruguay, Montevideo, Uruguay, 2008.

External Advisory Board, Centro de Investigaciones Matemáticas (CIMAT) (Center for Mathematics Research), Guanajuato, Mexico, 2007-2009.

Advisory Board member for Department of Statistics, Carnegie Mellon University, 2006.

External review committee for Department of Statistics, Harvard University, 2003 – 2006.

External Review Team (Chair) for Department of Statistics, Universidad Nacional de Colombia, Bogotá, Colombia, August 1998.

Professional Associations:

American Statistical Association:

Chair Elect, Section on Bayesian Statistical Sciences, 2012. (Elected).

Vice President, 2007-2009 (Elected).

Chair, Budget Committee, 2009 (Appointed).

Chair, Task Force on Graduate Education in Statistics in Vietnam, 2005-2006 (Appointed)

Task Force on Science Policy, 2006-2007 (Appointed)

Fellows Committee, Section on Statistics and the Environment, 2005-2007 (Appointed)

Strategic Planning Committee on Meetings, member, 2000. (Appointed)

Program Chair, Joint Statistical Meetings, 1999 (Appointed).

Committee on Meetings, 1998 - 2000. (Appointed).

Biometrics Section, member of the Executive Committee (Proceedings Editor) 1995-1997. (Appointed).

Section on Bayesian Statistical Sciences, member of Nominations Committee, 1996. (Appointed).
Iowa Chapter, President-Elect, 1995-1996, President, 1996-1997 (Elected).
Program Chair, Biometrics Section, Joint Statistical Meetings, 1997 (Appointed).

International Society for Bayesian Analysis (ISBA)

Chair, Nominations Committee, 2002 (Elected).
President, and member of Executive Committee, 2001 (Elected)
Co-Chair, Ad-hoc Journals Committee, 2000 - 2003. (Appointed)
President-Elect, and member of the Executive Committee, 2000. (Elected)
Member, Board of Directors, 1998 (Elected)
Program Chair, 1996-1997. (Appointed).
Program Committee, Fifth World Meeting, Oaxaca, Mexico, 1995 (Appointed).
Program Committee and co-Chair of Finance Committee, Seventh World Meeting, Crete, Greece, 2000

National Institute of Statistical Sciences (NISS)

Executive Committee member, 2000, 2001, 2002. (Appointed)
Chair, Jerome Sacks Award Committee, 2002 (Appointed).
Member of the Board of Trustees, 1998 - 1999, and 2000 – 2001, 2002-2003 and 2004-2008. (Elected).
Member of the Corporation, 2001, 2002, 2003. (Elected)

Institute of Mathematical Statistics (IMS)

Chair, Committee to Select Officers, 2011
Chair, Committee to Establish an IMS Meetings Cycle in Latin America, 2007-2008.
Member of the Executive Committee 1999 – 2005 (Appointed).
Member, Nominations Committee, 1999. (Appointed).
Committee on Meetings, and Joint Meetings Advisory Committee, 2001-2005 (Appointed)

Committee of Presidents of Statistical Societies (COPSS)

Member, Elizabeth Scott Award Committee in representation of the Institute of Mathematical Statistics (IMS). 1998 - 2000.
(Chair in 2000, Appointed).

International Biometric Society Eastern North American Region (ENAR)

Member of the Regional Advisory Board (RAB), 1996-1999. (Elected).

International Statistical Institute (ISI)

Editor, Electronic Encyclopedia of Statistical Sciences, 2009 – date (Appointed).
Member, ISI Council, 2007-2009 (Elected).
Nominations Committee, 2009-2010 (Appointed)
Publications Committee, 2008-2011 (Appointed)

Proposal and Manuscript Panels and Review

National Institutes of Health, Kidney, Nutrition, Obesity and Diabetes Study Section, 2011 -- 2012.
National Science Foundation Review Panel. February, 2011.
National Science Foundation Review Panel. December, 2010.

National Science Foundation Review Panel. December, 2009.

National Institutes of Health, Kidney, Nutrition, Obesity and Diabetes Study Section, 2005-2008.

National Science Foundation Review Panel for Statistics proposals, December 2004.

National Science Foundation Review Panel for Industry/University research cooperation. February, 2000.

National Science Foundation Review Panel on Digital Government. February, 1999.

Environmental Protection Agency and National Science Foundation Review Panel for Partnership for Environmental Research, May 1999.

National Science Foundation Review Panel for Statistics research proposals. December, 1999.

Refereed research proposals for United States Department of Agriculture, the National Council on Science and Technology of Chile, the National Science Foundation, South African Foundation for Research Development, Environmental Protection Agency, National Institutes of Health, Department of Agriculture and the Iowa Pork Producers Association.

Refereed papers for Journal of the American Statistical Association, Biometrics, The American Statistician, Theoretical and Applied Genetics, Génétique Sélection Evolution, Revista Chilena de Estadística, Revista Colombiana de Estadística, Revista Brasileira de Estadística, American Journal of Public Health, Communications in Statistics (Theory and Methods), Journal of Graphical and Computational Statistics, Statistics and Probability Letters, Biometrika, International Journal of Agricultural Economics, Journal of Nutrition, Metrika, Statistical Science, Journal of the American Dietetics Association, Public Health Nutrition, American Journal of Agricultural Economics, Journal of Agricultural, Biological and Environmental Statistics, Journal of the Royal Statistical Society, Springer-Verlag Publications, Elsevier Publications, Wiley Publications, National Academy of Sciences, Journal of Statistics Education.

Iowa State University:

Search committee for Dean of the College of Liberal Arts and Sciences, 2011.

Member of the Iowa Computational Biology Laboratory, 1998 - date.

Plant Sciences Initiative, Strategic Planning Committee for Laurence H. Baker Center for Bioinformatics and Biological Statistics, 1999 - 2000.

Bioinformatics and Computational Biology interdisciplinary major, Curriculum Development Committee member. 1999 - 2000.

Plant Sciences Institute, member of PSI Council. 2000 - 2004.

Plant Sciences Institute, search committee for Institute director, member. 2000.

Committee on Strategic Planning for Information Technology at Iowa State University, member. 2000.

Advisory Committee, International Institute for Theoretical and Applied Physics, member. 2000 - 2001.

Search committee for Dean of the College of Veterinary Medicine, representative of Provost, 2000.

Search committee for Dean of the College of Agriculture, representative of Provost, 2001.

Search committee for Dean of the College of Business, representative of Provost, 2002.

Search committee for Chief Information Officer, representative of Provost, 2003.

Search committee for Dean of the College of Family and Consumer Sciences, representative of Provost, 2003.

Search committee for Dean of the College of Veterinary Medicine, representative of Provost, 2003.

Search committee for Dean of the College of Engineering, representative of Provost, 2004.

Plant Sciences Institute Board, member, 2002-2004.

College of Agriculture, Iowa State University:

Member, International Agriculture Programs Faculty Advisory Committee, Iowa State University, 1993 - 2000.

College of Liberal Arts and Sciences, Iowa State University:

Awards Committee, 2009 – 2011.

Promotion and Tenure Committee, College of Liberal Arts and Sciences, 2004-2006.

Liberal Arts and Sciences Minority Advisory Board. 1996.

Member of the Liberal Arts and Sciences Committee on Academic Standards. August, 1995 – December, 1999.

Department of Statistics, Iowa State University:

Admissions Committee (Chair), 2009 – date.

Advisory Committee on Promotion and Tenure, 2009 – 2011.

Snedecor Hall Renovation and Expansion committee, 2006-2007.

Co-Director of Graduate Education, 2004-date.

Strategic Planning committee, Chair, 2004-2005.

Advisory Committee to the Department Chair, 2003-2006.

Capital Campaign Committee, 1995 - 1998.

Chair of the Non-thesis Master Exam Committee, Department of Statistics, 1995 - 1996.

Non-thesis Master Exam Committee, Department of Statistics, 1993 - 1995, 1997 - 1998.

Search Committees, Department of Statistics, 1992 - 1997, 2000, 2002-2003, 2004-2005.

Seminar Committee, 1991-1992, 1998-1999.

AWARDS AND HONORS

Promoted to Distinguished Professor at Iowa State University, July, 2011.

Invited to give Presidential Invited Lecture at the annual meeting of the West North American Region of the International Biometrics Institute, Seattle, Washington, June 2010.

Invited to give a plenary lecture at the annual meeting of the Texas Defense Lawyers Association, Houston, TX October 2009.

Elected Fellow of the Institute of Mathematical Statistics, 2006.

Invited to participate as a Drafting Expert in the FAO-WHO Workshop on Nutritional Risk, held in Geneva, Switzerland, on May 2-6, 2005.

Invited to give keynote address at the Statistics Applied to Agriculture conference, Kansas, April 2005.

20/20 Visionary Award, Iowa State University, October, 2000.

Distinguished International Service Award, Iowa State University, April, 2000.

Elected Fellow of the American Statistical Association, 1999.

Elected member of the Iowa State University Nutritional Sciences Council. December, 1998.

Elected Member of the International Statistical Institute, 1995.

Invited to the Forum, "Meeting the Challenge. Health, Safety, and Food for America," organized by the Executive Office of the President of the United States, Office of Science and Technology Policy, and by the National Academy of Sciences. Washington, D.C., November 21 - 22, 1994.

Member of Sigma Xi, Mu Sigma Rho, and Gamma Sigma Delta.

GRANTS AND CONTRACTS (Funded)

Uemura, E., **Carrquiry, A. L.**, and Kliemann, W. Mathematical Approach to Modeling Dendritic Growth. National Institutes of Health (NIH), May, 1991. \$300,000 over three years.

Carrquiry, A. L., and Kliemann, W. Mixed Linear Models and Quantitative Genetics. Iowa Agriculture Experiment Station Innovative Research Grant. 1991. \$3,810 over one year.

Carrquiry, A. L., and Jensen, H. H. Assessing the Health Risk Associated with Groundwater Contamination. Iowa State University Research Grant, Spring 1991 Competition. \$7,500 over one year.

Bouzaher, A., and **Carriquiry, A. L.** Multiproduct Yield Prediction when Products are not Independent. May 1991. Iowa Corn Promotion Board. \$17,000 over one year.

Bouzaher, A., **Carriquiry, A. L.**, and Jensen, H. H. Efficiency Analysis of Ukrainian Agriculture. National Council for Soviet and East European Research. May 1992. \$48,000 over 15 months.

Carriquiry, A. L., and Jensen, H. H. Collection of Data on Inputs in the Ukraine for Estimating Agricultural Productivity and Impacts of the Economic Reform. Office of International Cooperation and Development, USDA. January, 1993. \$6,761 over one year.

Jensen, H. H., and **Carriquiry, A. L.** NIS/Baltic Research Exchange, Agriculture Experiment Station, Iowa State University. March, 1994. \$2,700 over one year.

Johnson, S. R., and **Carriquiry, A. L.** Research Budget Expenses. Egyptian Cultural and Educational Bureau. March, 1994. \$13,000 over two years.

Johnson, S. R., Fuller, W. A., **Carriquiry, A. L.**, Jensen, H.H., and Nusser, S. M. Cooperative Agreement with Human Nutrition Information Service (HNIS) USDA. October, 1994. \$203,625 over one year.

Carriquiry, A. L. International Travel Grant. American Statistical Association. June, 1995. \$1,600.

Carriquiry, A. L. International Travel Grant. College of Agriculture, Iowa State University. July 1995. \$1,600.

Carriquiry, A. L. and Martinez, S. International Cooperation Programs, National Science Foundation. October 1995. \$35,280.

Kliemann, W., Breidt, F. J., Budhiraja, A., **Carriquiry, A.L.**, Mirkovic, D., and O'Donnell, B. Nonlinear Filtering Approaches to Multitarget Tracking. Office of Naval Research (ONR). November, 1995. \$604,342 over 3 years.

Del Pino, G., Marshall, G., and **Carriquiry, A. L.** Topics in nonlinear mixed models. Fondo de Ciencia y Tecnologia (FONDECYT), Chile. \$15,000 over 2 years.

Carriquiry, A. L. and Nusser, S. M. Estimating usual intakes and biochemical measurement distributions for NHANES III. National Center for Health Statistics, Department of Health and Human Services. October 1996. \$25,000 for one year.

Carriquiry, A. L. International Travel Grant. American Statistical Association. June, 1997. \$1,800.

Carriquiry, A. L. Data collection and processing in Extension. Extension Service, Iowa State University. June, 1997. \$5,500.

Carriquiry, A. L. International Travel Grant. College of Liberal Arts and Sciences, Iowa State University. July 1997. \$1,050.

Carriquiry, A. L. and Nusser, S. M. Statistical issues associated to NHANES III. National Center for Health Statistics, Centers for Disease Control and Prevention. October 1997. \$48,000 for one year.

Nusser, S.M., and **Carriquiry, A. L.** Development of sampling methods to support the USDA. Nutritional Data Laboratory, U.S. Department of Agriculture. April, 1998. \$31,650 for one year.

Carriquiry, A. L. Cooperation with Argentina. National Science Foundation. May, 1998. \$32,100 for one year.

Carriquiry, A. L. Analysis of nonresponse patterns in the Supplementary Nutrition Survey of Elderly Americans. National Center for Health Statistics, Centers for Disease Control and Prevention. October 1998. \$84,000 for one year.

Carriquiry, A. L., Daniels, M., and Stern, H. Statistical treatment of class evidence. Federal Bureau of Investigation (FBI). October, 1998. \$150,000 for one year.

Carriquiry, A. L. Analysis of antioxidant intake data. Food and Nutrition Board, IOM. 1999. \$9,045 over three months.

Carriquiry, A.L., and Rotnitzky, A. Eighth Latin American Congress on Probability and Mathematical Statistics, La Habana, Cuba. National Science Foundation, January, 2001. \$31,070 for one year.

Devaney, B. and **Carrquiry, A. L.** Using the new Dietary Reference Intakes to assess nutrient adequacy among vulnerable groups. Economic Research Service, USDA. May, 2001. \$247,000 for 18 months.

Carrquiry, A.L. PC software for dietary assessment. National Cancer Institute, NIH. November, 2001. \$25,000 for one year.

Carrquiry, A.L. Ninth Latin American Congress on Probability and Mathematical Statistics. Punta del Este, Uruguay. National Science Foundation, January, 2004. \$16,500 for one year.

Carrquiry, A.L. International Society for Bayesian Analysis 2004, Vina del Mar, Chile. National Science Foundation, March, 2004. \$12,000 for one year.

Meeker, W.Q., **Carrquiry, A.L.**, Cook, D., Maitra, R., Nettleton, D., Opsomer, J. Computing equipment for the Statistics Department at Iowa State University. SCREMS program, National Science Foundation. January 2004. \$127,000 for one year.

Carrquiry, A.L. Bayesian analysis of traffic safety data. Iowa Department of Transportation. September, 2004. \$75,000 for three years.

Carrquiry, A.L., Meeker, W.Q., Morris, M., Vardeman, S. and Wu, H. Statistics for the Physical and Engineering Sciences: A Research Training Group. \$1,101,547 for four years. National Science Foundation, July 2005.

Jensen, H.H., **Carrquiry, A.L.** and Schalinski, K. Assessing intake of choline in at-risk groups. Egg Nutrition Council, August 2006. \$45,000 for one year.

Wolt, J., **Carrquiry, A.L.**, Correia, A., Hurd, S., Jensen, H.H., O'Connor, A., Rodriguez, L., Sandve, G. and Stecker, G. Enabling graduate learning in risk analysis with emphasis on food, agriculture and veterinary medicine. Higher Education Commission, May 2006. \$146,813 over two years.

Srinivasan, R., Carter, D., Harkey, D., Eccles, K., Council, F., Persaud, B., Lyon, C., and **Carrquiry, A.L.** Evaluation of safety strategies at signalized intersections. NCHRP 17-35 Transportation Research Board, June 2006. \$750,000 over three years.

Jahns, L. and **Carrquiry, A.L.** Epidemiologic tools to assess obesity-related energy and other nutrient intake. USDA NRI, December 2006. \$345,000 over three years.

Kurkalova, L. Kling, K., **Carrquiry, A.L.** Economic benefits and water quality consequences of ethanol production in the upper Mississippi river basin. USDA NCR-SARE, October 2006. \$676,000 over three years.

Hallmark, S., Maze, T., **Carrquiry, A.L.** and Boyle L.N. Development of analytical tools to evaluate road departure crashes using naturalistic driving study data. Federal Highway Administration. December 2006. \$99,000 over two years.

Hallmark, S., Maze, T., **Carrquiry, A.L.** and Boyle L.N. Development of analytical tools to evaluate road departure crashes using naturalistic driving study data – Phase II. Federal Highway Administration. April 2008. \$130,000 over two years.

Carrquiry, A.L. Planning food fortification in developing nations. World Health Organization. January 1, 2008 – December 31, 2009. \$79,400.

Welk, G., Nusser, S.M. and **Carrquiry, A.L.** A measurement error approach to estimating usual daily physical activity distributions. National Institutes of Health. October 1, 2008 – September 30, 2012. \$2,453,000.

Carrquiry, A.L. Measurement error in non-linear models – An application to serum vitamin D. National Institutes of Health. October 1, 2009 – September 30, 2011. \$176,000.

Carrquiry, A.L. A comparison of various methods for estimating usual food intake distributions. National Institutes of Health. October 1, 2009 – September 30, 2011. \$162,000.

Carrquiry, A.L. XI Latin American Congress on Probability and Mathematical Statistics. National Institutes of Health, Office of Dietary Supplements. October 1, 2009 – March 31, 2010. \$8,500 (pending paperwork).

Genschel, U., **Carrquiry, A.L.**, Dougherty, B., Johnson, E., Kliemann, W. Exploring the STEM gender gap: Introductory college mathematics and statistics instruction and its association with self-efficacy. National Science Foundation. January 1, 2011 – December 31. \$543,000.

Wiser, R., Balent-Kurti, P., Holland, J., Nelson, R. Lauter, N., **Carriquiry A.**, Payne, G. Genetic and histological dissection of phenotypic variation in quantitative resistance to maize diseases. National Science Foundation. November 15, 2011 – November 14, 2014. \$3,997,779. Carriquiry is PI for the Iowa State portion, which amounts to approximately \$950,000.

PUBLICATIONS, REFEREED

1. **Carriquiry, A. L.**, Gianola, D., and Fernando, R. L. 1987. Mixed Model Analysis of a Censored Normal Distribution with Reference to Animal Breeding. *Biometrics*, **43**:929-939.
2. Nusser, S. M., **Carriquiry, A. L.**, Jensen, H. H., and Fuller, W. A. 1990. A Transformation Approach to Estimating Usual Intake Distributions. *Proceedings of the Second Annual Kansas State University Conference on Statistics Applied to Agriculture*. Manhattan, KS 120-132.
3. **Carriquiry, A. L.**, Jensen, H. H., and Nusser, S. M. 1991. Modeling Chronic vs. Acute Human Health Risk from Contaminants in the Food. In: J. A. Caswell (ed.) *The Economics of Food Safety*, Elsevier, New York, 69-89.
4. **Carriquiry, A. L.**, Ireland, W., Kliemann, W., and Uemura, E. 1992. Statistical Evaluation of Dendritic Growth Models. *Bulletin of Mathematical Biology*, **53**:579-589.
5. Bouzaher, A. and **Carriquiry, A. L.** 1992. Multiproduct Yield Prediction when Products are not Independent. *Proceedings of the Third Annual Kansas State Conference on Statistics Applied to Agriculture*. Manhattan, KS 102-114.
6. Fink, D., and **Carriquiry, A. L.** 1992. Having Babies or Not – Household Composition in Rural Iowa and Nebraska, 1900-1910. *Great Plains Quarterly*, **12**:157-168.
7. Harville, D. A., and **Carriquiry, A. L.** 1992. Classical and Bayesian Prediction as Applied to an Unbalanced Mixed Linear Model. *Biometrics*, **48**:987-1003.
8. Bouzaher, A., Archer, D., Cabe, R., **Carriquiry, A. L.**, and Shogren, J. F. 1992. The Effects of Environmental Policy on Trade-Offs in Agri-chemical Management. *Journal of Environmental Management*, **36**:69-80.
9. Bouzaher, A., Lakshminarayan, P. G., Cabe, R., **Carriquiry, A. L.**, Gassman, P., and Shogren, J. F. 1993. Metamodels and Nonpoint Pollution Policy in Agriculture. *Water Resources Research*, **29**:1579-1587.
10. Mansur, L., **Carriquiry, A. L.**, and Rao-Arelli, M. 1993. Resistance to Race 3 of the Soybean Cyst Nematode. *Crop Science*, **33**:1249-1253.
11. Johnson, S. R., Bouzaher, A., **Carriquiry, A. L.**, Jensen, H. H., and Lakshminarayan, P. G. 1994. Production Efficiency and Agricultural Reform in Ukraine. With discussion. *American Journal of Agricultural Economics*, **76**:629-635.
12. Uemura, E., **Carriquiry, A. L.**, Kliemann, W., and J. Goodwin. 1995. Mathematical Modeling of Dendritic Growth *in vitro*. *Brain Research*, **671**:187-194.
13. Jensen, H. H., Lakshminarayan, P. G., Bouzaher, A., **Carriquiry, A. L.**, Johnson, S. R., and Sabluk, P. 1996. Stochastic frontier analysis of technical efficiency of Ukrainian crop and livestock enterprises and implications for reform. **Ukrainian Economic Review**, **2**:4--22.
14. Nusser, S. M., **Carriquiry, A. L.**, Dodd, K. W., and Fuller, W. A. 1996. A Semiparametric Approach to Estimating Usual Intake Distributions. *Journal of the American Statistical Association*, **91**:1440-1449.
15. Breidt, F. J., and **Carriquiry, A. L.** 1996. Improved quasi-maximum likelihood for stochastic volatility models. In: Lee J. C., Johnson, W. O., and Zellner, A. (eds.) *Modeling and Prediction: Honoring Seymour Geisser*. Springer-Verlag, 228-247.
16. Babcock, B. A., **Carriquiry, A. L.**, and Stern H. S. 1996. Evaluation of soil test information in agricultural decision making. *Journal of the Royal Statistical Society (C), Applied Statistics*, **45**:447-461.

17. Guenther, P. M., Kott, P. S., and **Carriquiry, A. L.** 1997. Development of an approach for estimating usual nutrient intake distributions at the population level. *Journal of Nutrition*, **127**:1106-1112.
18. **Carriquiry, A. L.** 1997. Bayesian legal decision-making: impossible task? In: Allen, R.J., and Redmayne, M. (eds.) *Bayesianism and Juridical Proof*. International Journal of Evidence and Proof, Special Issue, 299-304.
19. Allen, R. J., and **Carriquiry, A. L.** 1997. Factual ambiguity and a theory of evidence reconsidered: a dialogue between a statistician and a law professor. 31 *Israel Law Review*, 464-505.
20. **Carriquiry, A. L.**, and Fienberg, S. E. 1998. Log linear models. Armitage, P., and Colton, T. (eds.). *Encyclopedia of Biostatistics* **3**:2333-2349.
21. Fienberg, S. E., and **Carriquiry, A. L.** 1998. Rasch Models. Armitage, P., and Colton, T. (eds.). *Encyclopedia of Biostatistics* **5**:3724-3730.
22. **Carriquiry, A. L.**, Breidt, F. J., and Lakshminarayan, P. G. 1998. Sampling schemes for policy analyses using computer simulation experiments. *Journal of Environmental Management* **22**:505-515.
23. **Carriquiry, A.L.** 1999. Assessing the prevalence of nutrient inadequacy. *Public Health Nutrition* **2**:23-33.
24. Breidt, F. J., and **Carriquiry, A. L.** 2000. Highest density gates for multiple target tracking. *IEEE Transactions on Aeronautics and Electronic Control*, **36**:47-55.
25. Fernandez, S., Fernando, R., and **Carriquiry, A.L.** 2001. An algorithm to sample marker genotypes in a pedigree with loops. *Case Studies in Bayesian Statistics, Vol. V*, Gatsonis, C. et al. (eds.). Lecture Notes in Statistics, Springer-Verlag. 309-328.
26. **Carriquiry, A. L.**, and Daniels, M. 2001. Adjusting for measurement error of a dietary risk factor in age-related maculopathy. *ISBA 2000 Proceedings: Bayesian Methods with Applications to Science, Policy, and Official Statistics*. Italy: European Communities Press. 51-61.
27. Fernandez, S. A., Fernando, R. L., and **Carriquiry, A. L.** 2001. An algorithm to sample unobservable genotypes in complex pedigrees. *ISBA 2000 Proceedings: Bayesian Methods with Applications to Science, Policy, and Official Statistics*. Italy: European Communities Press. 125-135.
28. Fernandez, S. A., Fernando, R. L., Guldbrandtsen, B., Totir, R., and **Carriquiry, A. L.** 2001. Sampling genotypes in large pedigrees with loops. *Genetics, Selection, Evolution*, **33**:337-367.
29. Daniels, M. J., and **Carriquiry, A. L.** 2002. Computing the posterior distribution of individual level usual intakes with application to diseases models. *Research in Official Statistics*, **1**: 67-81.
30. Kurkalova, L., and **Carriquiry, A.L.** 2002. An analysis of grain production decline during the early transition in Ukraine: Bayesian inference. *American Journal of Agricultural Economics*, **84**: 1256-1263.
31. Fernandez, S. A., Fernando, R. L., Guldbrandtsen, B., Stricker, C., Schelling, M., and **Carriquiry, A. L.** 2002. Irreducibility and efficiency of ESIP to sample marker genotypes in large pedigrees with loops. *Genetics, Selection, Evolution*. **34**:537-555.
32. **Carriquiry A.L.**, Nusser SM. 2002. Latent class analysis of complex sample survey data: Application to dietary data – Comment. *Journal of the American Statistical Association*. **97**:729-731.
33. Arab, L. **Carriquiry, A.L.**, Steck-Scott, S., and Gaudet, M. 2003. Ethnic differences in the nutrient intake adequacy of premenopausal women: results from the National Health and Nutrition Examination Survey III. *Journal of the American Dietetics Association*, **103**:1008-1014.
34. **Carriquiry, A.L.** 2003. Estimation of usual intake distributions of nutrients and foods. *Journal of Nutrition*. **133**:601-608.
35. Jahns L, Arab L, **Carriquiry A.** 2003. Dietary reference intakes still used incorrectly in Journal articles. *Journal of the American Dietetics Association* 103(10):1292-3; author reply 1293.

36. Kurkalova, L., and **Carriquiry, A. L.** 2003. Input- and output-oriented technical efficiency of Ukrainian collective farms, 1989-1992: Bayesian analysis of a stochastic production frontier model. *Journal of Productivity Analysis*, **20**:191-211.
37. Wang, H., Reitmeir, C. A., Glatz, B.A, and **Carriquiry, A. L.** 2003. Mixed model analysis of sensory characteristics of irradiated apple cider. *Journal of Food Science*. **68**:230-237.
38. Mila, A.L, Zhao, J., **Carriquiry, A.L.**, and Yang, X. B. Impact of management practices on regional prevalence of soybean Sclerotinia stem rot in the north-central region of the United States and on farmers' decisions under uncertainty. 2003. *Plant Disease*, **87**: 1048-1058.
39. Mila, A. L., Yang, X.B., and **Carriquiry, A. L.** Bayesian Logistic Regression of Soybean Sclerotinia Stem Rot Prevalence in the U.S. North-Central Region: Accounting for Uncertainty in Parameter Estimation. 2003. *Phytopathology*, **93**:758- 764
40. Mila, A.L, **Carriquiry, A.L.**, and Yang, X. B. 2004. Logistic regression modeling of prevalence of soybean Sclerotinia stem rot in the north-central region of the United States. *Phytopathology*, **94**: 102-110.
41. Kruzich LA, Marquis GS, **Carriquiry AL**, Wilson CM, Stephenson CB. 2004. U.S. youth in the early stage of HIV disease have low intakes of some micronutrients important for optimal immune function. *J Am Diet Assoc*. **104**:1095-1101.
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43. Mila, A.L., and **Carriquiry A. L.** 2004. Bayesian analysis in plant pathology. *Phytopathology* **94**:1027-1030.
44. Jahns, L. Arab, L., **Carriquiry, A.L.**, Popkin, B. 2005. The use of external within-person variance estimates to adjust nutrient intake distributions over time and across populations. *Public Health Nutrition* **6**: 19-32.
45. Love, T.M., and **Carriquiry, A.L.** Statistical analyses of cDNA microarray data. 2005. *Proceedings of the XIII Conference on Statistics Applied to Agriculture* 1-32.
46. **Carriquiry, A.L.**, and Camano-Garcia, G. Evaluating dietary survey data using the Tolerable Upper Level intakes. 2006. *Journal of Nutrition*, **136**: 507S-513S.
47. Che, P., Love, T.M., Frame, B.R, Wang, K., **Carriquiry, A.L.**, and Howell, S.P. 2006. Gene expression changes during germination and maturation of somatic embryos in maize cultures. *Plant Molecular Biology*, **62**(1-2):1-14. Epub 2006 Jul 15.
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49. Stout, T.B., Pawlovich, M. Souleyrette, R.R. and **Carriquiry, A.L.**. 2006. Safety impacts of road diets in Iowa. *Institute for Transportation Engineers Journal* **76**:24-28.
50. Souleyrette, R.R, Tenges, B. J., McDonald, T., Maze, T.H. and **Carriquiry, A.L.** 2006. Safety effectiveness of stop controls at ultra-low volume unpaved intersections. *Transportation Research Record*, **1967**:58-65.
51. Traynham, T.L., Myers, D.J., **Carriquiry, A.L.**, and Johnson, L.A. 2007. Evaluation of water-holding capacity for wheat-soy flour blends. *Journal of the American Oil Chemists Society*, doi:10.1007/s11746-006-1018-0.
52. Zhang, W., **Carriquiry, A.L.**, Nettleton, D. and Dekkers, J.C.M. 2007. Pooling mRNA in microarray experiments and its effect on power. *Bioinformatics*, doi: 10.1093/bioinformatics/btm081.
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54. Murphy, S., Barr, S. and **Carriquiry, A.L.** 2007. Using the Dietary Reference Intakes in nutritional assessment. In: Monsen, E.R., Van Horn, L. (Eds.) *Research: Successful Approaches*, 3rd edition. American Dietetic Association, Chicago, IL.
55. **Carriquiry, A.L.**, and Kliemann, W. 2007. The modes of posterior distributions in mixed linear models. *Proyecciones*, **26**: 281-308.

56. Yang, L., Song, G., **Carrquiry, A.L.**, and Jernigan, R. 2008. Close correspondence between the essential protein motions from principal component analysis of multiple HIV-1 protease structures and elastic network modes. *Structure*, **16**: 321-330.
57. Li, W., **Carrquiry, A.L.**, Pawlovich, M. and Welch, T. 2008. The choice of statistical models in road safety countermeasure effectiveness studies in Iowa. *Accident Analyses and Prevention*, **40**: 1531-142.
58. Hamner, H., Mulinare, J., Flores, A., Boyle, C.A., Prue, C.E. Cogswell, M., Wang, CY., and **Carrquiry, AL**. 2009. Predicted contribution of folic acid intake for the US population, NHANES 2001-2004. *American Journal of Clinical Nutrition*, **87**: 305 – 315.
59. Love, T., and **Carrquiry, A.L.** Incorporating multiple cDNA microarray scans into analyses – an application to maize embryogenesis. 2009. *JASA*, **104**:524 – 540.
60. Yang, Q., Cogswell, M., Berry, R.J., Hamner, H. and **Carrquiry, AL**. 2010. Sources of folic acid intake, tolerable upper intake levels and folate status among US adults: findings from the National Health and Nutrition Examination Survey 2001-2004 *American Journal of Clinical Nutrition*, **91**: 64 – 72.
61. Durazo-Arvizu, R.A., Dawson-Hughes, B., Sempos, C.T., Yetley, E.A., Looker, A.C., Cao, G., Harris, S.S., Burt, V.L., Carrquiry, A.L., Picciano, M.F. 2010. Parathyroid Hormone and the Estimation of Optimal 25-Hydroxyvitamin D Using Several Statistical Approaches. *Journal of Nutrition*. **140**: 595 – 599.
62. Sax, C.R., Maze, T.H., Souleyrette, R.R., **Carrquiry, A.L.** 2010. Optimal urban clear zone distance. *Transportation Research Record*. In press.
63. Arimond, M., Wiesman, D., Becquey, E., **Carrquiry, A.**, Daniels M.C., Deitchler, M., Fagnou-Fogny, N., Joseph, M., Kennedy, G., Martin-Prevel, Y., Torheim, L.E. 2010. Simple Food Group Diversity Indicators Predict Micronutrient Adequacy of Women's Diets in 5 Diverse, Resource-Poor Settings. *Journal of Nutrition*, **140**:2233-2240.
64. Sempos, C.T., **Carrquiry, A.L.**, Bailey L.R., Joseph, M.L., Looker, A.C., Durazo-Arvizu, R., Yetley, E.L., Dawson-Hughes, B., Dwyer, J.T., Picciano, M.F. 2010. The impact of within person variation on prevalence estimates for serum 25-hydroxyvitamin D in the National Health and Nutrition Examination surveys. *Journal of Nutrition*. In press.
66. Joseph, M., **Carrquiry, A.L.** 2010. An error-in-the-equation approach to evaluating the association between diet diversity and nutrient intake adequacy. *Journal of Nutrition*. **140**: 2094S-2101S.
65. Li, W., Yu, C., **Carrquiry, A.L.**, Kliemann, W. 2011. The asymptotic behavior of the R/S statistic fractional Brownian motion. *Statistics and Probability Letters*, **81**:83-91.
66. Yeung, L.F., Cogswell, M.E., **Carrquiry, A.L.**, Bailey, L.B., Pfeiffer, C.M., Berry, R.J. 2011. Contributions of enriched cereal grain products, ready-to-eat cereals and supplements to folic acid and vitamin B12 usual intakes in US children: National Health and Nutrition Examination Survey (NHANES) 2003 – 2006. *American Journal of Clinical Nutrition*. **93**: 172-185.
67. Cena, L., Li, W., Keren, N., **Carrquiry, A**, Pawlovich, M. 2011. A Bayesian Assessment of the Effect of Highway Bypasses in Iowa On Crashes and Crash Rate. *Journal of Safety Research*. In press.
68. Manjarrés, LM., Díaz, A., **Carrquiry, A.**, 2011. Asociación entre ingesta de nutrientes hematopoyéticos y tipo de anemia nutricional en mujeres colombianas anémicas en edad fértil. *Revista Panamericana de Salud Pública/Pan American Journal of Public Health*. In press.
69. Hotz, C., Loechl, C., deBrauw, A., Eozenou, P., Gilligan, D., Moursi, M., Munhaua, B., van Jaarsveld, P, **Carrquiry, A.**, Meenakshi, JV. 2011. A large-scale intervention to introduce orange sweet potato in rural Mozambique reduces the prevalence of inadequate vitamin A intakes among children and women. *British Journal of Nutrition*. In press.
70. **Carrquiry, A.L.** 2011. Election forensics and the 2004 Venezuelan presidential recall referendum as a case study. *Statistical Science*. In press.
71. Dettmer, M., Alekel, D.L., Lasardo, J.A., Messina, M., **Carrquiry, A.L.**, Haiberger, K., Stewart, J.W., Franke, W. The Effect of Soy Protein Beverages on Serum Cell Adhesion Molecule Concentrations in Prehypertensive/Stage 1 Hypertensive Individuals. *Journal of the American College of Nutrition*. In press.

72. Hotz, C. Loechl, C., Lubwova, A., Tumwine, J.K., Ndeezi, G., Masawi, A.N., Baingana, R., **Carriquiry, A.L.**, de Brauw, A., Meeknashi, J.V., Gilligan, D. 2012. A large-scale intervention to introduce carotene-rich orange sweet potato was effective in increasing vitamin A intakes among children and women in rural Uganda. *Journal of Nutrition*, In press.
73. Cogswell, M.E., Zhang, Z., Carriquiry, A.L., Gunn, J.P., Kuklina, A.V., Saydah, S.H., Yang, Q. Moshfegh, A.M. 2012. Sodium and potassium intake among US adults – NHANES 2003 – 2008. *American Journal of Clinical Nutrition*. In press.
74. Murphy, S., Ruel, M., **Carriquiry, A.L.** 2012. Should household consumption and expenditure surveys be used for nutritional assessment and planning? *Food and Nutrition Bulletin*. In press.

PAPERS SUBMITTED OR IN PREPARATION

1. Ibarburu, M.A., Lawrence, J.D., **Carriquiry, A.L.**, Busby, D.W. Be careful what you ask for: Making the case for increased carcass rating accuracy. Tentatively accepted by the *Journal of Agribusiness*.
2. Li, W., Yu, C., **Carriquiry, A.L.**, Kliemann, W. Estimation of long-memory parameters in time series. Submitted to *International Journal of Finance*. October, 2009.
3. Schmidt, K., **Carriquiry, A.L.**, Pawlovich, M., Welch, T. A multivariate hierarchical Poisson regression model to identify sites of interest. To be submitted to *Accident Analysis and Prevention*.
4. Li, W., **Carriquiry, A.L.**, Pawlovich, M., Welch, T. and Souleyrette, R. The effect of highway bypasses in Iowa on crashes and crash rate. To be submitted to *Accident Analysis and Prevention*.
5. Love, T., and **Carriquiry, A.L.** J-divergence for clustering posterior distributions. To be submitted to *Biometrics*.

VOLUMES WRITTEN OR EDITED

- Case Studies in Bayesian Statistics*, Volume IV. 1998. Gatsonis, C., Kass, R., Carlin, B. **Carriquiry, A. L.**, Gelman, A., Verdinelli, I., and West, M. (eds.). Springer-Verlag, Lecture Notes in Statistics, 138. New York.
- Case Studies in Bayesian Statistics*, Volume V. 2002. Gatsonis, C., Kass, R., Carlin, B. **Carriquiry, A. L.**, Gelman, A., Verdinelli, I., and West, M. (eds.). Springer-Verlag, Lecture Notes in Statistics, 162. New York.
- Case Studies in Bayesian Statistics*, Volume VI. 2002. Gatsonis, C., Kass, R., **Carriquiry, A. L.**, Gelman, A., Higdon, D., Pauler, D., and Verdinelli, I.(eds.). Springer-Verlag, Lecture Notes in Statistics 167, New York.
- Dietary Reference Intakes: Applications in Dietary Assessment* 2000. Murphy, S., Arab, L. Barr, S., Borra, S., **Carriquiry, A.**, Devaney, B., Dwyer, J., Habitch, J.P., King, J., Kuhnlein, H. . Institute of Medicine, National Academy Press, Washington, D.C. 285 pp.
- Estimating Eligibility and Participation for the WIC Program: Phase I Report*. 2001. Betson, D., Buescher, P. **Carriquiry, A.L.**, Currie, J., DaVanzo, J., Geweke, J.F., Greenberg, D., Inman, R.P., Lepkowski, J., Scholtz, J.K., Sutor, C.W. National Academy Press, Washington, D.C. 86 pp.
- Estimating Eligibility and Participation for the WIC Program: Final Report*. 2003. Betson, D., Buescher, P. **Carriquiry, A.L.**, Currie, J., DaVanzo, J., Geweke, J.F., Greenberg, D., Inman, R.P., Lepkowski, J., Scholtz, J.K., Sutor, C.W. National Academy Press, Washington, D.C. 162 pp.
- Dietary Reference Intakes: Applications in Dietary Planning*. 2003. Barr, S., Agurs-Collins, T.D., **Carriquiry, A.L.**, Coulston, A.M., Devaney, B., Dwyer, J.T., Hunt, J.R., Murphy, S., and Tarasuk, V. Institute of Medicine, National Academy Press.
- Intentional Human Dosing Studies for EPA Regulatory Purposes: Scientific and Ethical Issues*. 2004. Childress, J., Taylor, M.R., Bruckner, J., **Carriquiry, A.**, Clayton, E.W., Doull, J., Greely, H.T., Harlow, S.D., Lave, L.B., Lo, B., Louis, T.A., Rodricks, J.V., Schroeder, C.H., Temple, R. National Academy Press. 208 pp.
- Ballistic Imaging*. 2008. Rolph, J.E., Meiran, E.S., Blumstein, A., **Carriquiry, A.L.**, Chumbley, S., Cook, P.J., De Graef, M., Donoho, D.M., Eddy, W.F., Gray, G., Grimson, E., Huttenlocher, D., Meyer, M., Nair, V., Ninivaggi, A., Pisenti, D.W., Pregibon, D., Reininga, H.M., Stewart, J.K., Stonebraker, M., Weschler, H., Weertman, J. National Academy Press, 322 pp.

Gender Differences at Critical Transitions in the Careers of Science, Engineering, and Mathematics Faculty. 2010. Canizares, C., Shaywitz, S., Abriola, L., Buikstra, J., Carriquiry, A., Ehrenberg, R. Girgus, J., Leibowitz, A., Morawetz, C.S., Taylor, T., Wu, L., Yu, X. National Academy Press. National Academy Press, 365 pp.

Child and Adult Care Food Program- Aligning Dietary Guidance for All. 2011. Murphy, S.P., Birkhead, N.D., **Carriquiry, A.L.**, Chernoff, R. Coto-Moreno, S., Cullen, K.W., Fox, M.K., Henchy, G., Jensen, H.H., Russell-Tucker, C., Stallings, V.A., Tucker, K.L. National Academy Press, 296 pp.

TEACHING AND INSTRUCTION

PhD students:

- Kevin W. Dodd, 1999. (Joint with W. Fuller, Statistics). National Cancer Institute.
- Chad Hart, 1999. (Joint with S. Lence, Economics). Iowa State University, Dept. of Economics.
- Soledad Fernández, 2001. (Joint with R. Fernando, Animal Science). The Ohio State University, Dept. of Biostatistics.
- Tanzy Love, 2005. University of Rochester, Dept. of Statistics.
- Gabriel Camano, 2006. Universidad de la Republica, Uruguay, Dept. of Statistics.
- Wuyan Zhang, 2007 Abbott Laboratories.
- Wen Li, 2009 (Joint with C. Yu and W. Kliemann). Medical Research Center, Singapore.
- Wei He, 2011. (Joint with R. Fernando). Monsanto.
- Courtney Bokenkroger, 2012 (expected) (joint with P. Caragea).
- Yu-Yi Hsu, 2012 (expected).
- Maria Joseph, 2012 (expected).
- Kristian Schmidt, 2012 (expected).
- Reka Howard, 2012 (expected) (joint with W. Beavis).
- Hui Lin, 2014 (expected). (Joint with Chong Wang).

MSc students:

- 38 students completed their MSc in Statistics under my supervision since 1990. In addition, I am currently supervising two MS students in Statistics at Iowa State,

Have supervised, in addition, a Bachelor of Science and a Master of Science thesis from the Pontifical Catholic University of Chile, a Master of Science thesis from the Catholic University of Valparaiso, Chile, a Master of Science thesis from the Universidad Nacional Autónoma de México, and the MS of a student in the Department of Nutrition, University of Antioquia, Colombia. Was member of the doctoral committee of Dr. Lisa Jahns, School of Public Health, University of North Carolina at Chapel Hill. Was External Examiner of the doctoral dissertation of Mr. Robert Denham, The University of Newcastle, Australia. Currently External Examiner of a doctoral student in the University of Aalborg, Denmark.

Courses taught

Introduction to Business Statistics Stat 226 (1 time)
Applied Business Statistics Stat 328 (1 time)
Applied Multivariate Methods Stat 407 (4 times)
Statistical Methods for Research Workers Stat 401 (3 times)
Design of Experiments for Research Workers Stat 402 (1 time).
Introduction to Bayesian Data Analysis Stat 444X (2 times)
Response Surface Methodology Stat 513 (3 times)
Multivariate Analysis Stat 501 (4 times).
Bayesian Analysis Stat 544 (3 times).
Assessment of Nutritional Status FSHN 572 (1 time, as part of a team)
Mixed Linear Models and Longitudinal Data Analysis (1 time, Chile)
Statistical Methods Stat 500 (1 time)

INVITED TALKS (After 1990)

Bayesian Estimation of Variance Components in Mixed Linear Models. IV Congress on Genetics Applied to Livestock Production. Edinburgh, Scotland. July, 1990.

Classical and Bayesian Approaches to the Estimation of Variance Components in Mixed Linear Models. X Winter School on Probability and Statistics. CIENES and Pontificia Universidad Católica de Chile. July, 1991.

Topics on Bayesian Estimation from Components Models. First Congress of Mathematics Capricornio. Universidad Católica del Norte, Antofagasta, Chile. August, 1991.

Statistical Aspects of the Genetic Evaluation of Livestock. Forum on Livestock Production at the Onset of MERCOSUR. Instituto Nacional de Investigaciones Agropecuarias (INIA). Montevideo, Uruguay, August, 1991.

Topics on Estimation and Prediction from Components of Variance Models. XI Winter School on Probability and Statistics. Pontificia Universidad Católica de Chile and CIENES. Santiago, Chile. July, 1992. (Series of 5 invited lectures.)

Computation of Posterior Modes in Mixed Linear Models. XX Annual Meeting of the Chilean Statistical Society, Antofagasta, Chile. November, 1992.

Posterior Surfaces in Mixed Linear Models. NSF-NBER Workshop of the Americas on Recent Advances in Bayesian Statistics and Econometrics. Caracas, Venezuela. December, 1992.

Modern Approaches to Prediction in Mixed Linear Models. IV Statistics Symposium, Universidad Nacional de Colombia, Bogotá, Colombia. June, 1993.

Classical and Bayesian Approaches to Components of Variance Models. Semana de la Estadística. Universidad Católica de Valparaíso, Valparaíso, Chile. October, 1993.

Bayesian Estimation of Signal to Noise Ratios. NSF Conference on Bayesian Hierarchical Models. Rio de Janeiro, Brazil. December, 1993.

Robust QML for Stochastic Volatility. International NSF-NBER Forecasting, Prediction and Modeling in Statistics and Econometrics Meeting. Hsinchu, Taiwan, December, 1994.

Improved quasi-maximum likelihood for stochastic volatility models. Learning and Knowledge: 19th Annual Conference of the German Classification Society. Basel, Switzerland, March, 1995.

[Métodos de estimación en problemas de volatilidad estocástica.]. II Congreso Iberoamericano de Estadística, Oaxaca, Mexico, September, 1995.

Change-point problems in agriculture: the case of response to fertilizer. III World Meeting of the International Society for Bayesian Analysis (ISBA). Oaxaca, Mexico, September, 1995.

Assessing the proportion of the population at dietary risk: A brief commentary. Meeting of the Food and Nutrition Board, Institutes of Medicine, National Academy of Sciences. Washington, D. C., December 12, 1995.

Statistical issues in multi-target tracking. Tracker Workshop. NRaD, U.S. Navy, San Diego, California, February 6-8, 1996.

Transformation of dietary intake records into estimates of population intakes. Invited special address in the Session: *New Perspectives Underlying Recommended Dietary Allowances: Food and Nutrition Board Update*, Washington, D.C., April 17, 1996.

A Bayesian hierarchical approach to change point problems. German Cancer Research Institute, Heidelberg, Germany, June 17, 1996.

Mixed models with dynamic random effects. III Congreso Latinoamericano de Sociedades de Estadística (III CLATSE). Santiago, Chile. October 9, 1996.

Methodological issues in defining dietary recommendations. Defining Dietary Recommendations Workshop. Center for Human Nutrition and Biostatistics Department, Johns Hopkins University, Baltimore. October 24, 1996.

Estimation of genetic trend. IV World Congress of the International Society for Bayesian Analysis (ISBA). Capetown, South Africa. December 19, 1996.

Highest density gates for multiple target tracking. V Congreso de Matemáticas Capricornio. Antofagasta, Chile, July 30, 1997.

Metamodeling for environmental policy evaluations. Joint Statistical Meetings, Anaheim, August 10, 1997.

Risk assessment based on 24--hr. food intake data. Joint Statistical Meetings, Anaheim, August 13, 1997.

Bayesian methods in dietary assessment. VII Annual Meeting of the Portuguese Statistical Association. Tomar, Portugal, June 9, 1998.

A maximum entropy approach to estimating the prevalence of nutrient inadequacy. Sixth Purdue Symposium on Statistics, Workshop on Nutrition and Statistics. Purdue University, West Lafayette, Indiana, June 18, 1998.

Assessing the prevalence of nutrient inadequacy. 81st Annual Meeting and Exhibition of the American Dietetic Association. Kansas City, Kansas, October 19, 1998.

Preliminary methodological investigation of the Supplementary Nutrition Survey of Older Americans. Experimental Biology Meetings, Washington, D. C., April 19, 1999.

Analysis of the non-response in the Supplementary Nutritional Survey of Older Americans. National Conference on Health Statistics, Centers for Disease Control and Prevention. Washington, D.C., August 4, 1999.

Do bullets have fingerprints? Fourth International Conference on Forensic Statistics, North Carolina State University. Raleigh, North Carolina, December 6, 1999.

A hierarchical model to adjust for heterogeneous measurement error. Sixth World Meeting of the International Society for Bayesian Analysis, Crete, Greece, May 31, 2000.

A method to assess the proportion of undernourished individuals in a population. Sixth International Conference on Dietary Assessment. Tucson, Arizona. September 19, 2000.

Technical efficiency in the use of a single input. Workshop of the Midwest Econometrics Group. Chicago, October 20-21, 2000.

Estimation of the distribution of a random variable measured with error. Workshop on Robust Statistics. Argentinean Academy of Exact Sciences, March 4-9, 2001. Buenos Aires, Argentina.

An analytical approach to estimation in mixed models. IV Bayesian Statistics Workshop. Northern Catholic University, Antofagasta, Chile, October 1, 2001.

Non-linear, non-Gaussian models for target tracking. Meetings of the Chilean Statistical Society, Antofagasta, Chile, October 3, 2001.

Assessing nutrient adequacy in the U.S. Meeting of the American Society of Public Health, Atlanta, GA, October 22, 2001.

Statistical methods for assessing trace evidence. I Congreso Bayesiano de America Latina, Ubatuba, Brazil, February 4, 2002.

Estimating usual intake distributions. Workshop on the Integrated NHANES survey: What We Eat in America. United States Department of Agriculture and Department of Health and Human Services, Rockville, Maryland, June 20-21, 2002.

An analysis of the volatility of the British pound to guide arbitration. Fifth International Conference on Forensic Statistics, Venice, Italy, September 1, 2002.

Estimating the distribution of usual nutrient and food intakes. Fifth International Conference on Dietary Assessment, Bangkok, Thailand, January 26, 2003.

Estimated association between added sugar and micronutrient intake using nationwide food consumption data. ILSI, March 22, 2003.

Challenges in the application of the Upper Tolerance Levels (UL) to dietary assessment. ILSI, March 23, 2003.

Assessing usual nutrient intakes. National Cancer Institute, September 3, 2003.

Series of invited lectures at the Latin American Congress on Nutrition, Acapulco, Mexico, November 10 – 14, 2003.

EDA, Bayes, and the subjectivist versus objectivist controversy. Panel discussion, Eighth World Meeting of ISBA, Vina del Mar, Chile, May 22-27, 2004.

The probative value of bullet lead evidence. Sixth International Conference on Forensic Statistics, College of Law, Arizona State University, Tempe, AZ, March 17-19, 2005.

The analysis of microarray data. Keynote address, Conference on Statistics Applied to Agriculture, Kansas State University, Manhattan, KS, April 25, 2005.

Estimation of usual nutrient exposure. Workshop on Nutrient Risk Assessment, World Health Organization, Geneva, Switzerland, May 2-6, 2005.

Quantitative approaches to dietary assessment. Conference of the Brazilian Society of Nutrition, Sao Paulo, Brazil, November 17, 2005.

Sampling issues in the construction of nutrient compositional databases. Conference of the Brazilian Society of Nutrition, Sao Paulo, Brazil, November 18, 2005.

The many flavors of Bayesian analysis: an illustration using four-lane to three-lane conversion data from Iowa. Annual meeting of the Transportation Research Board, Washington, D.C., January 2006.

Sources of error in forensic analyses; what matters and what doesn't. Joint Statistical Meetings, Seattle. August 7, 2006.

Dietary assessment using intake data from complex surveys. Annual meeting of the Colombian Society of Nutrition, Medellin, Colombia, August 10, 2006. (Keynote address).

Graduate statistics education in Vietnam. Joint Statistical Meetings, Salt Lake City, Utah, August 2007.

Statistical issues in food intake assessment and planning. Academy for Educational Development, Washington, D.C. August 2007.

Statistical methods to guide food and nutrition policy in developing countries. Infinite Possibilities Conference. Raleigh, NC, November 1, 2007.

Challenges in the analysis of periodically consumed foods and other substances. Office of Dietary Supplements, National Institutes of Health. Bethesda, MD. December 5, 2007.

Clustering posterior densities. Conference in Honor of Daniel Gianola's 65th Birthday. University of Wisconsin – Madison, May 6-9 2009.

Assessing the probative value of evidence. Plenary talk. Annual Meeting of the Texas Defense Lawyers Association, Houston, TX., October 21, 2009.

How well are women faring? A comparison of men and women in RI universities at critical transition points. Washington Statistical Society, Washington, D.C. October 28, 2009.

How well are women faring? A comparison of men and women in RI universities at critical transition points. Presidential Invited Address. Annual Meeting of the Western American Region of the International Biometric Society. June, 2010.

Designing and analyzing dietary intake data. Conference on Probability and Statistics. Renmin University, Beijing, China, July 2010.

Evaluating and planning intakes and their impact on nutrition policy in The Philippines. Food and Nutrition Research Institute. September, 2010.

Dietary and physical activity assessment – some methodological issues. Joint Statistical Meetings, Miami, FL, August 2011.

Analyzing physical activity data to guide policy. XII Latin American Congress on Probability and Mathematical Statistics, Vina del Mar, Chile, March 2012.

Software for dietary assessment. ICDAM, Rome, Italy, May 2012.

Using toxicological risk assessment principles from a nutrition perspective. ILSI, Washington, June 2012.

SHORT COURSES TAUGHT (After 1990)

[Tópicos sobre Regresión Lineal y No Lineal.] Curso-Taller Interamericano Para Usuarios de Estadística. Organization of American States/CIENES. Santiago, Chile. June, 1990.

Bayesian Econometrics. Department of Agricultural Economics. University of California, Berkeley. May, 1993.

[Modelo de Efectos Mixtos y Mejores Predictores Lineales, Inssegados (BLUP).] IV Statistics Symposium, Universidad Nacional de Colombia, Bogotá, Colombia. June, 1993.

Topics in Regression Analysis. Interamerican Course on Statistical Methods. Organization of American States/CIENES. Santiago, Chile. September, 1993.

Sampling Techniques and PC CARP. Sampling Techniques and Applications. Organization of American States/CIENES. Santiago, Chile. October, 1993.

Applied Bayesian Analysis: hierarchical models, numerical methods, and applications in agriculture. International Statistics Symposium: Statistics in Agriculture and the Environment. Santa Marta, Colombia, June 1995.

Bayesian approaches to linear models. International Statistics Symposium: Bayesian Statistics. Santa Marta, Colombia, June, 1996.

Bayesian decision theory. African Educational Workshop. Capetown, South Africa, December, 1996.

Using the new Dietary Reference Intakes (DRIs) to assess nutrient adequacy. Workshop on Measurement Error Adjustment Evaluation. School of Public Health, University of North Carolina, November 4, 1999.

Statistical methods in forensic science. Short course presented to investigators and agents at the Federal Bureau of Investigations (FBI). May 8 and 9, 2000.

Quantitative assessment of nutritional status, Latin American Congress on Nutrition, November, 2003.

Bayesian methods in agriculture, Conference on Statistics in Agriculture, Kansas State University, Manhattan, KS. April 24, 2005.

An introduction to Bayesian data analysis. ENAR Meetings, Tampa, Florida, March 26, 2006.

An Introduction to Bayesian data analysis. CDC, Atlanta, Georgia, May, 2006.

Bayesian data analysis. Universidad de Costa Rica, May, 2007. (Invited, but had to cancel at last minute)

Analysis of geo-spatial data. VI Escuela de Invierno de Analisis Estocastico y sus Aplicaciones, Universidad de Valparaiso, Chile. Julio, 2008.

Collection, analysis and interpretation of dietary intake data. Instituto Nacional de Salud Pública, Cuernavaca, Mexico. August, 2010.

Collection, analysis and interpretation of dietary intake data. Food and Nutrition Research Institute, Manila, Philippines. September, 2010.

Design and analysis of micro-array experiments. MS Program in Bioinformatics, Universidad de la República, Uruguay. November, 2010.

Chewing over the numbers: how food consumption data drive Nutrition policy. Iowa State University, College of Liberal Arts and Sciences. Dean's Lecture Series, November, 2010.

An Introduction to Statistical Thinking -- Iowa Public Defender's Office. Tama, Iowa, June 2011.

Dietary Assessment. Universidad La Molina, Lima, Peru. October 2011.

Collection, analysis and interpretation of dietary intake data. Food and Nutrition Research Institute, Jakarta, Indonesia. May, 2012. (Re-scheduled)

Collection, analysis and interpretation of dietary intake data. Instituto Nacional de Salud Pública, Cuernavaca, Mexico. August, 2012.

SEMINARS AND COLLOQUIA

May, 1989. A Bayesian Approach to the Genetic Evaluation of Livestock. Department of Animal Science, Institute National de la Recherche Agronomique (INRA). Jouy-en Josas, France.

June, 1989. Genetic Evaluation of Dairy Cattle Within a Bayesian Framework. Department of Animal Science, University of Uppsala. Uppsala, Sweden.

June, 1989. Bayesian Prediction and Its Numerics for Large Data Sets. Department of Mathematics, University of Augsburg. Augsburg, West Germany.

October, 1989. Classical and Bayesian Prediction from Unbalanced Mixed Linear Models. Department of Mathematics, University of Rome "La Sapienza". Rome, Italy.

December, 1989. [Predicción Clásica y Bayesiana en Modelos Lineales Mixtos.] Centro de Matemáticas. Montevideo, Uruguay.

November, 1991. On Modes of Posterior Densities in Mixed Linear Models. Department of Statistics, Iowa State University. Ames, Iowa.

February, 1992. Approximate Inference for Posterior Means in Mixed Linear Models. Department of Statistics, Universidad Nacional Autónoma de México. Mexico City, Mexico.

March 17, 1993. Bayesian Approaches to Prediction in Mixed Linear Models. Department of Statistics, Carnegie-Mellon University, Pittsburgh, Pennsylvania.

April 15, 1993. An Overview of Bayesian Prediction in Components of Variance Models. Department of Statistics, Purdue University, West Lafayette, Indiana.

October 6, 1993. Estimation of Usual Intake Distributions. Department of Statistics, Pontificia Universidad Católica de Chile, Santiago, Chile.

November 9, 1993. Stochastic Volatility Models. Department of Mathematics, Pontificia Universidad Católica de Chile, Santiago, Chile.

January 19, 1994. Stochastic Volatility Models: Introduction and an Application. Department of Statistics, Iowa State University, Ames, Iowa.

March 4, 1994. Stochastic Volatility Models for Futures Returns. Finance Department, Iowa State University, Ames, Iowa.

April 22, 1994. Estimating Usual Intake Distributions. U.S. Department of Agriculture, Human Nutrition Information Service. Hyattsville, Maryland.

May 16, 1994. Economic - Environmental Models: Applications in Agriculture. Department of Natural Resources, Universidad Autónoma de Chihuahua, Chihuahua, Mexico.

June 14, 1994. Dietary Assessment: A Comparison of Different Procedures. Food and Drug Administration, Center for Food Safety and Applied Nutrition, Washington, D.C.

November 10, 1994. Robust QML for Stochastic Volatility. Department of Economics, Iowa State University, Ames, Iowa.

May 15, 1995. Exploring Stationary Surfaces for Markov Chain Monte Carlo. Department of Statistics, University of Washington, Seattle, Washington.

May 31, 1995. ISU Method and Software for Estimating Distributions of Usual Nutrient Intake. Agricultural Research Service (ARS), US Department of Agriculture (USDA), Hyattsville, Maryland.

May 31, 1995. Estimation of the Usual Intake Distribution of Ratios of Dietary Components. Agricultural Research Service (ARS), US Department of Agriculture (USDA), Hyattsville, Maryland.

October 17, 1995. Assessing the Dietary Status of Populations. Department of Biostatistics, University of Minnesota, Minneapolis, Minnesota.

November 20, 1996. Improved maximum likelihood for stochastic volatility estimation. Department of Statistics, Pontificia Universidad Católica de Chile, Santiago, Chile.

April 27, 1997. Analyses of dietary intake data. Institute for Statistics and Decision Sciences, Duke University, Durham, North Carolina.

November 7, 1997. Highest density gates for target tracking. Institute for Statistics and Decision Sciences, Duke University, Durham, North Carolina.

April 8, 1998. Statistical issues in the analysis of dietary intake data. Department of Food Science and Human Nutrition, Iowa State University.

March 11, 1999. Using reversible jump MCMC to estimate the density of usual nutrient intake. Department of Statistics, Purdue University.

April 29, 1999. Analyses of dietary intake data. Department of Statistics, University of Iowa.

June 15, 1999. Issues in the analysis of complex dietary intake surveys. Department of Statistics, Pontificia Universidad Católica de Chile, Santiago, Chile.

October 19, 1999. A Bayesian approach to estimate the density of a random variable observed with measurement error. Department of Biostatistics, University of Rochester.

November 4, 1999. Adjusting intake distributions and estimating prevalence of nutrient inadequacy. Department of Nutrition and Epidemiology, School of Public Health, University of North Carolina.

December 5, 2000. Exploring the surface of a product form poly-t density. Department of Biostatistics, University of Minnesota.

May, 2001. Forensic statistical methods for ballistic trace evidence. Los Alamos National Laboratory, Santa Fe, New Mexico.

February, 2002. An analysis of the volatility of the British pound to guide arbitration. Department of Statistics, Stanford University.

March, 2002. Using the Dietary Reference Intakes for Group and Individual Assessment. School of Public Health, University of North Carolina at Chapel Hill.

May, 2005. An analysis of the volatility of exchange rates in a financial forensic problem. Dept. of Economics, Iowa State University.

December, 2005. Incorporating multiple array scans in the analysis of microarray data. Departments of Statistics and Biostatistics, University of Wisconsin at Madison.

March, 2007. Estimating the probability of a coincidental match in bullet lead analysis. Department of Statistics, Michigan State University.

May 2008. Revisiting stochastic volatility models. Department of Statistics, Catholic University of Chile.

September, 2009. Divergence metrics to cluster densities. Department of Statistics, University of Toronto, Canada.

February, 2010. Statistical challenges in the analysis of dietary intake observations. National Academy of Sciences, Washington, DC.

October, 2011. Statistics in nutrition and health. Department of Biostatistics, University of Rochester, New York.

PROFESSIONAL PRACTICE

International (since 1991):

Ministry of Health, Jakarta, Indonesia. Training on dietary assessment methods and analysis of the 2010 nutrition survey. 2012.

Food and Nutrition Research Policy, Philippines. Analysis of the 2003 National Nutrition Survey and training of FNRI personnel in the analysis and interpretation. 2009 – 2011.

Harvest Plus. Baseline analysis and modeling of fortification strategies in Bangladesh, Philippines and Indonesia. 2010-2012.

Universidad de Chile, Departamento de Nutricion. Encuesta Nacional de Consumo de Alimentos (ENCA2010), consultant.

Pontificia Universidad Católica de Chile, Escuela de Salud Pública Encuesta Nacional de Salud (ENS2008), co-investigadora.

Ministerio de Salud Pública, Chile Encuesta Nacional de Consumo de Alimentos (ENCA) – Statistical Consulting. May 2008 – date.

International Food Research Policy Institute Analysis of nutrient intake data from a survey of women and children in Uganda. July – September, 2008.

Academy for Educational Development Analysis of nutrient intake data from the 2005 food intake survey in Palestine, 2005. September – December, 2008 and September – December, 2009.

Academy for Educational Development Analysis of nutrient intake data from a multiregional food intake survey in Uganda.

Academy for Educational Development Analysis of nutrient intake data from the 2003 Philippines survey of women and children. June 2007 – date.

International Food Research Policy Institute Analysis of nutrient intake and diet diversity data using data collected in Bangladesh. January 2007-December 2007.

WHO Designing and evaluation food fortification programs in the developing world. A background paper and a suite of computer programs (with their manuals) will be produced in the context of this project. June 2007 – December 2008.

WHO/FAO Expert on assessing exposure for nutritional risk assessment. May, 2005. A background paper and a report were written in connection to this assignment.

Colombia 2004 -2007 – Advisor to the Ministry of Health and Human Services on the design and analysis of a dietary intake survey. Two reports written to the Ministry of Health and Human Services of Colombia.

New Zealand 2000 - on. Advisor to the Ministry of Health and Human Services in New Zealand on the design and analysis of a dietary intake survey of children.

Center for Indigenous People's Nutrition and Environment, McGill University, Canada 1999- 2000. Analysis of a dietary intake survey conducted in Baffin Island to assess the nutritional status and intake patterns of Inuit populations. A manuscript is under preparation. One MSc student in Statistics (D. Zaun) based his MSc Creative Component on this project.

EUROSTAT 1997 - 2000. Joint organization of a meeting to discuss the uses of Bayesian methods in Official Statistics. Collaboration resulted in ISBA 2000, the Sixth World Conference of ISBA, co-sponsored by EUROSTAT.

University of Pasto, Colombia. 1997 - 1999. Analysis of production data of *cuyes*, (guinea pigs), to assess the performance of breeding programs. *Cuyes* provide the main source of protein in the diet of native Colombian and Equatorian populations in the region. Report submitted to the Dean of the College of Agriculture, 2000.

National University of Colombia. 1993 - 1998. Advice on the establishment of a graduate program in Statistics in Santa Fé de Bogotá, Colombia. Chaired the committee established by the ASA charged with accreditation of the MSc program in Statistics at the

National University in Colombia, and reviewed plans for a doctoral program in Statistics at the same institution. A report was written and submitted to the President of the National University of Colombia.

Pontifical Catholic University of Chile. 1995 - 1997. Collaborated in the writing of the proposal for the creation of a PhD in Statistics at the Catholic University in Chile, that was sent to the Secretary of Education of Chile for approval. The PhD program in Statistics at the Pontifical Catholic University of Chile, the first in the country, was approved and launched in 1999.

Ministry of Social Affairs, Vilnius, Lithuania. Spring, 1993. Analysis of household expenditure survey data, including design issues. Estimation of proportion of families living in poverty.

Agriculture CANADA. 1992-1994. Development of an integrated agro-ecological economic system to estimate economic and environmental impacts of agricultural activities in Western Canada. Several reports were written under this project.

Ministry of Agriculture/USAID, Lusaka, Zambia. Spring, 1992. Adjustment for nonresponse of the 1991 Household Expenditure Survey. A final report to the Ministry of Agriculture and to USAID was written. Software for non-response adjustment was written and provided to Zambian officials.

Ukrainian Institute of Agrarian Economics, Kiev, Ukraine. September 1991 - 1994. Issues relating to collection of data on farm productivity, and efficiency analysis, including the estimation of efficient frontiers. Several reports and three published articles have been written under this project.

Institute of Economics, Riga, Latvia. Fall 1991 - 1993. Design of household expenditure surveys, adjustment for nonresponse, and impact analysis due to price restructuring. No report written.

National Association of Milk Producers/GTZ, Montevideo, Uruguay. June 1991 and June 1992. Organization of a national scheme for selection of genetically superior dairy animals. Including sampling schemes, creation and management of data bases, and development and adaptation of statistical procedures for estimating breeding values of animals. A report was written.

National (since 1991):

Consultant to **CDC** on development of calibration equations for of urine sodium collected from partial voids. 2011-2012.

Consultant to **CDC** on analysis of iodine intake data. 2012.

Consultant to the **Institute of Medicine** on estimation of the distribution of serum vitamin D biomarkers and their association with levels of PTH. 2009 – 2011.

Consultant to **Center for Disease Control and Prevention (CDC)** on analysis of folate and folic acid intake and its association with the incidence of birth defects in the United States. 2010.

Consultant to **Center for Disease Control and Prevention (CDC)** on analysis of food and supplement intake data. 2007-2008.

NewLink Genetics, member of the Data and Safety Monitoring Committee for clinical trials. 2005-date.

Consultant to **ABT Associates**. Analysis of food intake data collected from a nation-wide school breakfast program. Work in progress.

Consultant to **Mathematica Policy Research**. Design and analysis of food intake data collected from a federally funded nationwide school lunch program. 2003.

Expert witness in a murder trial in October, 2001. Was certified as an expert in the **State of Alaska**.

Kemin Industries, Des Moines, IA. Design and analyses of lutein bioavailability trials. 2003.

Consultant to **ABT Associates** in project entitled *Evaluation of the School Breakfast Program Pilot Project*. 2001.

Department of Public Safety, Oklahoma. Analysis of traffic stop, warning, and citation data by the special drug interdiction units, to investigate whether troopers in certain special operations units engage in racially motivated stops and citations. 2000-2001.

Collaboration with Dr. Hank Harris, **School of Veterinary Medicine, Iowa State University**, Dr. Scot Hurd, National Animal Disease Center, USDA, and Dr. Barry Weisman, Nextran, on estimation of the risk of public health impacts of xeno-transplantations.

The work involved estimation of risks, elicitation of expert opinion, and combination of expert opinions into a probability model. 1999 – 2000.

Consulting for **Nutrition Research Group**, 1999. Analysis of boron intake data. Using boron intake data collected by Nutrition Research Group, we estimated usual boron intake distributions for various gender/age groups. Report written.

Consulting for **Environ**, 1999 - 2002. Analyses of iron, vitamin A, copper, and zinc intake data, and iron and vitamin A blood biomarker data. Using data from the two major nationwide dietary surveys, we assessed the nutritional and health status of all gender/age groups. Report written.

National Pork Producers Council, Des Moines, Iowa. Statistical analyses of marketing data and data arising from taste panel tests. 1997 - 1999. Two reports written.

National Center for Health Statistics, Centers for Disease Control and Prevention. 1996 - 1999. Analysis of the Third National Health and Nutrition Examination Survey and of the Supplementary Survey of Older Americans. Work has included research on non-response patterns and imputation for the surveys, assessment of the nutritional status of populations, estimation of prevalence of nutrient inadequacy, and development of statistical methods to estimate distribution of usual nutrient intakes with limited data on individual daily intakes. Various reports, several MSc Creative Components (Y. Liu, G. Camaño) and two manuscripts have resulted from this project.

Affiliate, Law and Economics Consulting Group, San Francisco, California. Statistical analyses of financial data, including derivatives in the S&P500, and foreign exchange spot, futures, and options returns. 1994 - 1997. Two reports written. One published paper resulted from this work as well.

United States Environmental Protection Agency (USEPA), Office of Policy Analysis. 1992-1995. Development of an objective system to evaluate the environmental and economic impacts of livestock production. Statistical aspects of the project include sampling, experimental design, design of computer experiments, and model fitting. Various reports written under this project. One published manuscript resulted from this work.

Consulting for the **United States Environmental Protection Agency (USEPA)**, Washington, DC, USA. 1991-1995. Assessment of risks from ground water, surface water, and air contamination from agriculture non-point source pollution. One published manuscript resulted from this project.

Consulting for the **United States Department of Agriculture**, Human Nutrition Information Service, Washington, DC, USA. January 1990 to 1998. Estimation of distributions of usual intake of nutrients, and of the proportion of individuals in the (sub)populations deficient in those nutrients. Various reports, three published manuscripts, various MSc creative components (B. Bai, J. Goyeneche, K. Dodd) and one doctoral dissertation (K. Dodd) resulted from this work.

TECHNICAL REPORTS AND PAPERS, NONREFEREED (1990 – 2004, 2007 - 2008)

1.(With S. M. Nusser, H. H. Jensen, and W. A. Fuller). “A Transformation Approach to Estimating Usual Intake Distributions.” CARD Working paper 90-WP 59, 1990.

2, “Bayesian Estimation of Variance Components in Mixed Linear Models.” Proceedings of the 4th World Congress on Genetics Applied to Livestock Production. Vol XIII, 429-432.

3.(With H. H. Jensen and S. M. Nusser). “Modeling Chronic versus Acute Human Risk from Contaminants in Food.” CARD Working paper 90-WP 69, 1990.

4.(With B. An). “Estimation of the Correlation Among Days for Transformed Nutrient Intake.” Research report prepared for the Human Nutrition Information Service (HNIS), USDA, 1991.

5.(With A. Bouzaher, R. Cabe, and J. Shogren). “Metamodels, Response Functions, and Research Efficiency in Ecological Economics.” CARD Working paper 91-WP 79, 1991.

6.(With A. Bouzher, D. Archer, R. Cabe, and J. Shogren). “The Effects of Environmental Policy on Trade-offs in Weed Control Management.” CARD Working paper 91-WP 81, 1991.

- 7.(With D. Archer, R. Cabe, P. Gassman, C. Hintermeister, D. Holtkamp, S. Johnson, A. Lilienfeld, M. McCorcle, P. Rosenberry, J. Shogren, and Q. Wang, Iowa State University, and A. Manale and P. Kuch, US/EPA). "CEEPES Atrazine Project: Research Memo 2," Staff report prepared for USEPA, 1992.
- 8.(With B. Luckett and H. H. Jensen). "Distributions and Correlates of Four Essential Nutrients." Report for USDA/Human Nutrition Information Service, Center for Agricultural and Rural Development, Iowa State University, Ames, Iowa, 1992.
- 9.(With A. An and W. A. Fuller). "Standard Errors of Usual Intake Quantiles." Report for USA/Human Nutrition Information Service, Department of Statistics, Iowa State University, Ames, Iowa, 1992.
- 10.(With M. M. Loughin and W. A. Fuller). "Regression Weighting for the Household Expenditures and Incomes Suvey: Zambia, 1991-92." Report for the U.S. Agency for International Development, 1992.
- 11."The Genetic Evaluation of Dairy Bulls: A Mission Report for Mejoramiento Lechero and Deutsche GTZ" (in Spanish), Montevideo, Uruguay, 1992.
- 12.(With A. Bouzاهر). "A Compositional Data Approach to the Prediction of Dry Milling Yields." CARD Working paper 92-WP 90, 1992.
- 13.(With A. Bouzاهر, R. Cabe, P. Gassman, P. Lakshminarayan, and J. Shogren). "Metamodels and Non-point Pollution Policy in Agriculture." CARD Working paper 92-WP 97, 1992.
- 14.(With S. M. Nusser and W. A. Fuller). "A Semiparametric Transformation Approach to Estimating Usual Daily Intake Distributions." 92-WP 99, Center for Agricultural and Rural Development, Iowa State University, Ames, Iowa, 1992.
- 15.(With A. Bouzاهر, R. Cabe, J. Shogren, D. Holtkamp, P. Gassman, D. Archer, P. G. Lakshminarayan, T. Campbell, and Q. Wang, Iowa State University, A. Manale, US/EPA. R. Taylor, Auburn University). "Atrazine and Water Quality: An Updated CEEPES Analysis. CEEPES Atrazine Project Research Memo 5." 93-SR 59, Center for Agricultural and Rural Development, Iowa State University, Ames, Iowa, 1993.
- 16.(With K. W. Dodd and W. A. Fuller). "Adjusting for Heterogeneity of Within-Individual Variances." Research report prepared for the Human Nutrition Information Service (HNIS), USDA, 1993.
- 17.(With K. W. Dodd and W. A. Fuller). "Estimation of Usual Intake Distributions: A User's Guide to the ISU Software." User's Manual and Installation Guide to accompany the ISU package for estimating distributions of usual nutrient intakes. 1993.
- 18.(With A. Bouzاهر, P. Gassman, D. Holtkamp, D. Archer, J. F. Shogren, R. Reese, and P. G. Lakshminarayan). "Agricultural Policies and Soil Degradation in Western Canada: An Agro-Ecological Economic Assessment. Report 1: Conceptual Framework." CARD Staff report, 93-SR 65, 1993.
- 19.(With K. W. Dodd, W. A. Fuller, and H. H. Jensen). "Estimated Correlations Among Days for the Combined 1989-91 CSFII." Research report prepared for the Human Nutrition Information Service (HNIS), USDA, 1994.
- 20.(With A. Bouzاهر, J. Shogren, D. Holtkamp, P. Gassman, D. Archer, and R. Reese, ISU; W. Furtan, University of Saskatchewan; R. C. Izaurralde, University of Alberta; J. Kiniry, USDA/ARS). "Agricultural Policies and Soil Degradation in Western Canada: An Agro-Ecological Economic Assessment. Report 2: The Environmental Modeling System." CARD Staff report 94-SR 69, 1994.
- 21.(With A. Bouzاهر, H. H. Jensen, and S. R. Johnson, ISU; and P. Sabluk, Institute of Agricultural Economics, Ukraine). "The Structure of Ukrainian Agriculture: Comparative Efficiency with International Agriculture and Implications for Policy Reform." Volumes I and II. Research report prepared for the National Council for Soviet and East European Research, 1994.
- 22.(With A. Bouzاهر, J. Shogren, D. Holtkamp, P. Gassman, D. Archer, and R. Reese, ISU; W. Furtan, University of Saskatchewan; R. C. Izaurralde, University of Alberta; J. Kiniry, USDA/ARS). "Agricultural Policies and Soil Degradation in Western Canada: An Agro-ecological Economic Assessment. Report 3: The Integration of the Environmental and the Economic Component." CARD Staff report 95-SR 75, 1995.

- 23.(With A. Bouzaher, J. Shogren, D. Holtkamp, P. Gassman, D. Archer, and R. Reese, ISU; W. Furtan, University of Saskatchewan; R. C. Izaurralde, University of Alberta; J. Kiniry, USDA/ARS). "Agricultural Policies and Soil Degradation in Western Canada: An Agro-ecological Economic Assessment. Report 4: Modification to CRAM and Policy Evaluation Results." CARD Staff report. In press.
- 24.(With W. A. Fuller, J. J. Goyeneche, and K. W. Dodd). "Estimation of the Usual Intake Distributions of Ratios of Dietary Components". Research report prepared for the Agricultural Research Service (ARS), USDA. 1995.
- 25.(With W. A. Fuller, J. J. Goyeneche, and H. H. Jensen). "Estimated correlations among days for the combined 1989-91 CSFII". Staff Report 95-SR 77, Center for Agricultural and Rural Development, September, 1995.
- 26.(With F. J. Breidt and P. G. Lakshminarayan). "Sampling schemes for policy analyses using computer simulation experiments". Research report presented at *CEEPES Baseline and Farm Bill Policy Seminar*, CARD, Iowa State University, June 1995.
- 27.(With B. A. Babcock, P. G. Laksminarayan, JunJie Wu, T., Campbell, J. J. Goyeneche, P. Gassman, S. Liu, M. Siemers, P. Mitchell, T. Otake, and D. Kakani). "The impacts of agricultural practices on nutrient runoff and leaching potential in the Midwest and the Great Plains". Research report presented at *CEEPES Baseline and Farm Bill Policy Seminar*, CARD, Iowa State University, June, 1995.
- 28.(With B. A. Babcock, P. G. Laksminarayan, JunJie Wu, T. Campbell, J. J. Goyeneche, P. Gassman, S. Liu, M. Siemers, P. Mitchell, T. Otake, and D. Kakani). "Economic and environmental evaluation of farm bill policy options using CEEPES-FAPRI modeling system". Research report presented at *CEEPES Baseline and Farm Bill Policy Seminar*, CARD, Iowa State University, June, 1995.
- 29.(With W. A. Fuller, J. J. Goyeneche, and K. W. Dodd). "Estimation of the usual intake distributions of ratios of dietary components". Research report prepared for the Agricultural Research Service (ARS), USDA. 1995.
- 39.Assessing the proportion of the population at dietary risk: a brief commentary. Report prepared for the Food and Nutrition Board, Institute of Medicine, National Academy of Sciences, December, 1995.
- 31.(With B. A. Babcock, and H. S. Stern) An evaluation of soil test information in agricultural decision making. Working paper 96-WP 147, Center for Agricultural and Rural Development, January 1996.
- 32.(With F. J. Breidt, and P. G. Lakshminarayan) Sampling schemes for policy analysis using computer simulation experiments. Working paper 96-WP 062, Center for Agricultural and Rural Development, February, 1996.
- 33.(With Johnson, S.R., Babcock, B.A., Lakshminarayan, P.G., Campbell, T., Gassman, P., Wu, J.J., Siemers, M., Mitchell, P., Otake, T., Bishop, T., and Opsomer, J.D.) RAPS 1996: Agricultural and Environmental Outlook. Resource and Agricultural Policy Systems. Center for Agricultural and Rural Development, June, 1996.
- 34.Ratios.F Version 1.0: A Fortran program to compute individual daily ratio estimates for use in *SIDE*. Research report submitted to the Agricultural Research Service, USDA, August, 1996.
- 35.(With W. A. Fuller and C. Chen) An investigation of the relationship between consumption day usual intakes and probability of consumption. Research report submitted to the Agricultural Research Service, USDA, September 1996.
- 36.(With J. J. Goyeneche and W. A. Fuller) Estimation of bivariate usual intake distributions. Research report submitted to the Agricultural Research Service, USDA, September 1996.
- 37.(With W. A. Fuller, H. H. Jensen, and S. M. Nusser) Improvement of USDA's Food Intake Surveys: Design and Analysis. Final research report prepared for Agricultural Research Service, USDA, September 1996.
- 39.(With P. J. Abbitt) Analysis of Pork Taste Pre-Test Data. Preliminary report submitted to the National Pork Producers Council, November 1997.

- 40.(With S. M. Nusser and K. W. Dodd) Estimating Adjusted Intake and Biochemical Measurement Distributions for NHANES III. Final research report submitted to the National Center for Health Statistics, Centers for Disease Control, U.S. Department of Health and Human Services.
- 41.A Bayesian method for estimating usual nutrient intake distributions. Preliminary research report prepared for the National Center for Health Statistics, Centers for Disease Control and Prevention. June 1998.
- 42.Pork meat preferences of Japanese consumers. Final report prepared for the National Pork Producers Council, October 1998.
- 43.Using the EAR to assess the intakes of groups. Report prepared for the Food and Nutrition Board, Institutes of Medicine. December, 1998.
- 44.(With M. Daniels and H. Stern) Statistical Treatment of Class Evidence: Trace Element Concentration in Bullet Lead. Final report submitted to the Federal Bureau of Investigations, May 2000.
- 45.(With S. Fernandez and W. Kliemann) A Study of Student Learning in Large versus Small Calculus Sections. A report prepared for the Colleges of Liberal Arts and Sciences and Engineering, Iowa State University, July 2000.
- 46.(With G. Camano) Analysis of the Non-Response and Imputation of Missing Data in the Supplementary Nutritional Survey of Older Americans. A final report prepared for the National Center for Health Statistics, April, 2001.
- 47.(With G. Camano) Fractional Hot-Deck and Model-Based Imputation of Missing Nutrient Intake Values in the Supplementary Nutritional Survey of Older Americans.
- 48.(With M. Bouillon, C. Espinoza, K. Dixon-Fox, T. Herriott, T. Oftedal, A. Osterberg, D. Pounds, A. Schmidt, and J. Webke) Improving Access to Programs, Facilities, and Electronic Resources at Iowa State University. Report prepared for President Gregory Geoffroy, posted in www.provost.iastate.edu/documents. April, 2004.
- 49.Progress Towards Meeting Iowa State University's Strategic Goals in 2003. Report prepared for President Gregory Geoffroy, posted in www.provost.iastate.edu/documents. May, 2004.
- 50.(With B. Devaney, G. Camano, and M. Kim) Assessing the Nutrient Intakes of High-Risk Subgroups. Mathematica Policy Research Report MPR#8935-200. May, 2004.
- 51.(With R. De Cook) Does Gender Matter? Gender Equity in the Salaries of Science, Technology, Engineering and Mathematics Faculty at Iowa State University. Report prepared for President Gregory Geoffroy. June, 2004.
- 52.(With M. Pawlovich) From Empirical Bayes to Full Bayes: Analyzing Traffic Safety Data. Report prepared for the Iowa Department of Transportation. October, 2004.
- 53.(With V. Tarasuk) Assessing Exposure for Nutritional Risk Analyses. Background paper commissioned by the World Health Organization and the Food and Agriculture Organization of the United Nations for inclusion in the WHO/FAO Expert Report on Nutritional Risk. November, 2004.
- 54.Utilizing food consumption data to plan and evaluate food fortification strategies. Report prepared for the Academy of Educational Development, December, 2007.
- 55.Replicate weight variance estimation for the 2003 National Survey of Food Intake, Philippines (women in reproductive age and children aged 0-5 years). Report prepared for the Academy of Educational Development, December, 2007.
- 56.Effect of the increase of speed limits in Iowa interstates on safety. Report prepared for the Iowa Department of Transportation, July, 2008.