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Jean D. Opsomer

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EXPERIENCE

Adjunct Professor, Department of Mathematics, University of Maryland, College Park, 2020-present.

Vice President, Westat, 2018-present.

Professor, Department of Statistics, Colorado State University, 2007–2018.

Chair, Department of Statistics, Colorado State University, 2011–2016.

Professor, Department of Statistics, Iowa State University, 2006–2007.

Director, Center for Survey Statistics and Methodology, Iowa State University, 2005-2007.

Associate Professor, Department of Statistics, Iowa State University, 2001–2006.

Assistant Professor, Department of Statistics, Iowa State University, 1995-2001.

Senior Consultant, Alliance Consulting Group, Inc, Cambridge, MA, 1987-1991.

EDUCATION

Ph.D. in Operations Research, Cornell University, 1995.

Master of Business Administration, University of Chicago, 1987.

MS-Management Engineering, Katholieke Universiteit Leuven, Belgium, 1986.

AWARDS AND HONORS

Carver Medal, Institute of Mathematical Statistics, 2019.

Fellow, Institute of Mathematical Statistics, 2012.

Gertrude M. Cox Award, Washington Statistical Society/Research Triangle Institute, 2009.

Fellow, American Statistical Association, 2006.

Elected Member, International Statistical Institute, 2006.

SELECTED PROJECT EXPERIENCE (WESTAT)

1. Population Assessment of Tobacco and Health (PATH) Study, National Institute on Drug Abuse (NIDA) and Food and Drug Administration (FDA).

   In support of NIDA and FDA, Westat is conducting a large national longitudinal cohort study of U.S. tobacco users and nonusers, involving approximately 32,000 adults plus 14,000 youth (aged 12-17) on an annual basis. Dr. Opsomer is responsible for the development of sampling plans for future data collection waves and of estimation methods for cross-sectional and longitudinal analyses.

2. Survey of Doctorate Recipients (SDR), National Center for Science and Engineering Statistics (NCSES).

   Westat is conducting the biannual survey of 120,000 doctorate holders from US educational institutions in the science, engineering and health fields. Dr. Opsomer is responsible for the longitudinal and cross-sectional estimation strategies and the development of the SDR methodological and analytical research agenda in collaboration with NCSES.

3. Small Domain Estimation Methodology for the Office of Compensation and Working Conditions, Bureau of Labor Statistics (BLS).

   Westat is developing a method to create estimates of the wage and non-wage compensation components for detailed job classifications in the US, based on data from the National Compensation Survey. Dr. Opsomer oversees the data analysis and statistical model development.

4. Longitudinal Cohort Study of Interpersonal Violence Among College-Aged Women and Men: Planning Phase, National Institute of Justice (NIJ).

   Westat is developing and testing designs for a longitudinal survey of interpersonal violence in a nationally representative sample of young adults as they transition from high school to college or other post-high school life. Dr. Opsomer is responsible for the design of sampling plans targeting graduating high school seniors combining survey and non-survey data sources.

5. Bridging Two Surveys of Fishing, Hunting and Wildlife-Associated Recreation (FHWAR) for the Association of Fish and Wildlife Agencies (AFWA).

   Westat is developing an approach that harmonizes estimates from two FHWAR surveys conducted in parallel but using different modes, which resulted in substantial differences between the two. Dr. Opsomer is responsible for the development of the statistical procedure addressing this problem, by combining modeling, survey calibration and other adjustments.

SELECTED REFEREED PUBLICATIONS (70 total; complete list available at https://sites.google.com/site/jopsomer//)

6. Oliva-Aviles, C., M.C. Meyer and J.D. Opsomer (2019). "Checking validity of monotone domain mean estimators." *Canadian Journal of Statistics,* 47: 315-331 (DOI:10.1002/cjs.11496).
7. Yu, H., Y. Wang, P. Wang, J.D. Opsomer and N. Ponce (2018). "A design-based approach to small area estimation using semiparametric generalized linear mixed models." *Journal of the Royal Statistical Society, Series A,* 181: 1151-1167 (DOI:10.1111/rssa.12351).
8. De Brabanter, K., F. Cao, I. Gijbels and J.D. Opsomer (2018). "Local polynomial regression with correlated errors in random design and unknown correlation structure." *Biometrika*, 105: 681-690 (DOI:10.1093/biomet/asy025).
9. Breidt, F.J. and J.D. Opsomer (2017). "Model-assisted survey estimation with modern prediction techniques." *Statistical Science,* 32: 190-205 (DOI: 10.1214/16-STS589).
10. Wu, J., M.C. Meyer and J.D. Opsomer (2016). "Survey estimation of domain means that respect natural orderings." *Canadian Journal of Statistics,* 44: 431-444 (DOI: 10.1002/cjs.11301).
11. Hernandez-Stumpfhauser, D., F.J. Breidt and J.D. Opsomer (2016). "Hierarchical Bayesian Small Area Estimation for Circular Data." *Canadian Journal of Statistics,* 44: 416-430 (DOI: 10.1002/cjs.11303).
12. Breidt, F.J., J.D. Opsomer and I. Sanchez-Borrego (2016). "Nonparametric variance estimation under fine stratification: an alternative to collapsed strata." *Journal of American Statistical Association,* 111: 822-833 (DOI: 10.1080/01621459.2015.1058264).
13. Opsomer, J.D., F.J. Breidt, M. White and Y. Li (2016). "Successive Difference Replication Variance Estimation in Two-Phase Sampling." *Journal of Survey Statistics and Methodology*, 4: 43-70 (DOI: 10.1093/jssam/smv033).
14. He, Z and J.D. Opsomer (2015). "Local Polynomial Regression With An Ordinal Covariate." *Journal of Nonparametric Statistics*, 27: 516-531 (DOI: 10.1080/10485252.2015.1078462).
15. Wu, J., M.C. Meyer and J.D. Opsomer (2015). "Penalized isotonic regression." *Journal of Statistical Planning and Inference,* 161: 12-24 (DOI: 10.1016/j.jspi.2014.12.008).

SELECT PROFESSIONAL SERVICE

Member, Panel on Assessment of Native Seeds and Capacities, National Academies of Sciences, 2019-2021.

Member, ASA Committee on Energy Statistics, 2019-2021.

Chair, Statistics Without Borders, 2018-2020.

Member, Advisory Committee on Statistical Methods, Statistics Canada, 2017-2020.

Member, Panel on Evaluation of Walk and Bicycle Demand Modeling Practice, National Academies of Sciences, 2017-2018.

Member, Panel on Improving Data Collection and Reporting about Agriculture with Increasingly Complex Farm Structures, National Academies of Sciences, 2016-2018.

Chair, Caucus of Academic Representatives, ASA, 2016-2017.

Vice-chair, Statistics Without Borders, 2016-2018.

Member, Panel on Methods for Making Transportation Data Anonymous, National Academies of Sciences, 2014-2016.

Member, Advisory Committee on Agriculture Statistics, US Department of Agriculture, 2013-2016.

Program Chair, 2014 JSM.

Member, Bureau of Labor Statistics Technical Advisory Committee (BLSTAC), 2012-2014.