Recai M. Yucel

Contact Information

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Education

Post-Doctoral training (2000–2002)	Research Associate in Statistics, Department of Health Care Policy, Harvard Medical School, Boston, MA.
Ph.D., Statistics (May, 2000)	The Pennsylvania State University, University Park, PA Thesis title: "Computational tools for missing values in multivariate longitudinal and clustered data" Dr. Joseph L. Schafer, Advisor.
M.A., Statistics (Aug., 1996)	The Pennsylvania State University, University Park, PA.
B.S., Statistics (June, 1992)	Gazi University, Ankara, Turkey.

Professional employment & affiliations

Sep. 2011 – present	Associate Professor of Biostatistics Associate Chair for Biostatistics Department of Epidemiology and Biostatistics School of Public Health, University at Albany, SUNY Rennselaer NY, USA.
Nov. 2011 – present	Associate Chair Department of Epidemiology and Biostatistics School of Public Health, University at Albany, SUNY Rennselaer NY, USA.
Jan. 2008 – 2011	Assistant Professor of Biostatistics (tenure-track) Department of Epidemiology and Biostatistics School of Public Health, University at Albany, SUNY Rennselaer NY, USA.
July 2009 – present	Research Associate Center for the Elimination of Minority Health Disparities College of Arts and Sciences, University at Albany, SUNY Albany, NY, USA.

Professional employment & affiliations

July 2008 – present	Research Associate Center for Social and Demographic Analysis College of Arts and Sciences, University at Albany, SUNY Albany, NY, USA.
Sep. 2004 –Dec. 2007	Assistant Professor of Biostatistics (tenure-track) Department of Biostatistics and Epidemiology School of Public Health and Health Sciences University of Massachusetts, Amherst MA, USA.
Oct. 2002–Sep. 2004	Instructor in Medicine Institute for Health Policy Harvard Medical School (Massachusetts General Hospital) Boston MA, USA.

Ongoing research grants & Contracts

2009–2014 *Exploratory Center for the Elimination of Minority Health Disparities*
P 20 MD 003373-01 (PI: Schell), NIH/NCMHD
Role : Co-investigator/Statistician
The main role is to provide statistical advice and guidance in the Research & Training Cores of the Center for the Elimination of Minority Health Disparities. Specifically, I am assisting with the development of statistical methods that analyze data relevant to accomplishing the goals of the Center. In addition, I am providing guidance on implementing sound statistical approaches for complexities associated with longitudinal data obtained from observational studies. Some of statistical methods on missing data (e.g. calibration) have been both motivated and funded by this Center grant.
Project budget: $946,759

2014–2018 *Persistent Organic Pollutants and Cognitive Decline in the Elderly*
R01 ES022652-01 (PI:Fitzgerald), NIH/NIEHS
Role: Co-Investigator
The goal of the proposed research is to address research gaps concerning the& effects of selected persistent organic pollutants (POPs) on the nervous system of older adults. Because it builds upon an existing project which collected cross-sectional data and proposes to follow-up the participants, it will provide a longitudinal evaluation of whether exposure to POPs is associated with changes in cognitive and motor function in older adults over time.

Completed research grants & Contracts

2011–2012 *Upstate Health Research Network Data Security Protocol for the Analysis of New York State Data.*
Fair Health Inc. and Office of the Attorney General, NY
Project Title: Negative charges, Missing charges, Zero Charges
Role: PI
The main purpose of this project is to create a transparent public database for determining reimbursement rates for out-of-network care for a given geozip and medical procedure. My particular project focuses on the issue of missing/negative or zero charges. With funding from this agency, I will develop parametric and nonparametric techniques for producing rate tables in the presence of missing data. These techniques are based on the novel use of mixed-effects models modified to reflect unique complexities such as non-nested and nested clustering. In addition, nonparametric techniques for missing data using calibration, resampling, and matching-based methods are used. I will also develop new parametric and non-parametric missing-data methods that rely on the strength gained from multiple data sources.
Project Budget: $112,000

2011–2012 *Upstate Health Research Network Data Security Protocol for the Analysis of New York State Data.*
Fair Health Inc. and Office of the Attorney General, NY.
Project title : Representativeness of Ingenix claims data for NY State.
Role: Co-investigator/Statistician
This project develops computationally efficient Monte Carlo experiments to conduct tests on the representativeness of the datasets to be used by other investigators. Further develop re-weighting schemes to ensure representativeness, using propensity score matching algorithms. Tools and methods developed in the "missing-data" part of the project (see above) will also be used here.

2009–2010 *Feasibility study of an alternative class of techniques for multiple imputation inference in realistically complex incomplete datasets.*
Junior researcher award, Center for Social and Demographic Analysis
University at Albany.
Role: PI
The overall aim of this project is to conduct a feasibility study of sequential imputation using Bayesian sampling routines in complex data systems. Specifically, a comprehensive real-data-based simulation study is conducted to assess the performance of a variable-by-variable approach in developing imputation models. These structures include but are not limited to nested and non-nested clustered structures with item nonresponse and clustered administrative data with multiple cluster membership.
Project budget: $ 11,800

Completed research grants & Contracts (Ctd.)

2008–2010 *Augmenting NY Cancer Registry Data to Assess Breast and Colorectal Cancer Care.*
Centers for Disease Control and Prevention (PI: Schymura, Sub-contract PI: Yucel)
Role: Co-investigator/Statistician
This project's principal aim is to bring diverse sources of data together to examine the quality of cancer care delivery, from early detection to survival. To accomplish this, a unique linkage was made among the New York State Cancer Registry, New York State Medicaid program, New York State Hospital Discharge-Ambulatory Surgery data system, and Medicare claims. My role is to devise sound, practical and objective methods on missing cancer stage data for the New York Cancer Registry. In addition, methods using missing-data and measurement error techniques are being implemented to draw overall statistical inferences from multiple data-sources.
Subcontract budget: $ 41,024

2007–2009 *Private Sector Workplace Equal Employment Opportunity Progress 1966-2004*
National Science Foundation (PI: Tomaskevic-Devey)
Role: Co-investigator
The overarching goal of this project was to analyze more than five million establishment-level, panel observations collected by the U.S. Equal Employment Opportunity Commission since 1966. The richness and complexity of these data required us to first investigate unresolved but generally important analytic problems for modeling dynamic outcomes associated with long-term panel data with multiple non-hierarchical clustering. I developed the modeling framework for both maximum likelihood estimation and imputation that addressed these complexities (e.g. overlapping nesting, multiple memberships in dynamic data). Substantively, we examined the organizational change in in firms, industries, and local labor markets in the United States.
Project budget: $151,000.

2008–2009 *Infant Mortality, Black-White Disparities, State Social Policy*
Kellogg Foundation (PI: Robinson)
Role: Consultant
I developed estimates using multilevel models, causal models and modern missing data techniques on disparities in infant mortality. This project used multiple data sources including the National Vital Statistics System and National Maternal and Infant Health Survey.
Project budget: $17,464

2006 *Mixed Models for Finite Populations*
National Institute of Health (PI: Stanek)
Role: Co-Investigator
I introduced model-based routines for missing data and helped the PI adapting some of these methods to finite population settings. I also collaborated on the development of re-sampling-based missing-data methods.
Project budget: $331,392

Completed research grants & Contracts (Ctd.)

2006–2007 *Methods for High Dimensional Data in HIV Research*
National Institute of Health (PI: Foulkes)
Role: Consultant
This project involved grouping individuals into genetic clusters, where individuals in the same cluster have similar or identical multilocus genotypes. I helped the formulation of the unobservable alignment of alleles within chromosomal copies as the missing-data problem in haplotype-based investigations. I also assisted in the development of estimation routines drawing upon multiple imputation in the mixed modeling setting, where cluster assignments are determined under a given probability distribution.
Project budget: $956,670

2002–2004 *Model-based approaches to item non-response in complex sample surveys and censuses.*
American Statistical Association and National Center for Health Statistics (PI: Yucel)
Role: PI
This project extended general multivariate imputation techniques to multivariate multilevel data which are of particular interest to survey practitioners. These newly-developed methods were applied to several large-scale health surveys, including the National Health and Nutrition Examination Survey and the National Health Interview Survey. I also studied variable-by-variable imputation for clustered-data under maximum-likelihood-based routines.
Project budget: $240,000

2003–2006 *The public health of caregiving and disability.*
Centers for Disease Control and Prevention (PI: Kuhlthau)
Role: Co-investigator/Statistician
I guided statistical analyses of survey data obtained under complex sample designs such as National Health Interview Survey, Medical Expenditure panel Survey, Behavioral Risk Surveillance System). I also devised appropriate Bayesian model-fitting techniques for incomplete data.
Project budget: $439,994

Applications submitted but not yet funded

- *Statistical methods for dynamic models using realistically complex data*

  National Institutes of Health Challenge Grant Program (PI: Yucel)

  Role: PI

  This project proposes new statistical methodology for dynamic models that can deal with both substantive problems around multiple environmental and/or genetic associations and missing data. Dynamic models of gene-environment interaction resemble multiple membership models, conceptualizing the actor (gene, person, organization) with the potential to develop behaviors when confronted with environmental resources or the opposite which is to have the behavior blocked by environmental conditions. Main contribution to the statistical literature is the statistical methods on the missing data and mixed-effects models for estimating dynamic models in social and/or epidemiological studies. Substantive contributions modeling dynamic change in workplace employment dynamics and its interaction with environmental factors and the novel use of mixed-effects models for estimating genetic association and gene-environment interaction studies on outcomes on colorectal adenoma and body mass index in studying cardiovascular disease.

  This project is currently being prepared for application for NSF and NIH funding.

- *Environmental Disruptors of Ovulation in African American Women (Submitted in June 2012)*

  National Institutes of Health (PI: Bloom)

  Role: Co-Investigator

- *Improving Nutrition for Low-Income Families using eHealth and CBPR (Submitted in February 2013)*

  National Institutes of Health (PI: Jurkowski)

  Role: Co-Investigator

- *Synergistic Effects of Preventive Measures and EHRs on Avoidable Hospitalizations (Submitted in May, 2013)*

  National Institutes of Health, AHRQ (PI: Yuchi)

  Role: Co-Investigator

- *Home Antenatal Environment, Maternal Exposures, and the Wellbeing of the Young (HARMONY) (Submitted in October, 2013)*

  National Institutes of Health, NICHHD (PI: Choi)

  Role: Co-Investigator

Publications in peer-reviewed journals

Statistical methods publications(* indicates students or post-doctoral fellows under supervision; ** indicates equal authorship, *** indicates senior authorship)

1. **Yucel, R.M.** (2014) R **mlmmm** package: Fitting multivariate linear mixed-effects models with missing values. *Turkish Clinics Journal of Biostatistics.* Submitted in 8/2014. Accepted in 11/2014.

2. * Karakaya, J. , Karabulut, E. and **, Yucel R.M.**** (2014) Sensitivity to imputation models and assumptions in ROC analysis with incomplete data, Journal of Statistical Computation and Statistics. DOI: 10.1080/00949655.2014.983111. Appeared online 11/2014

3. **Yucel, R.M.** (2012) Dissemination of Missing Data Techniques in Medical, Biomedical and Social Research. *J Biomet Biostat* 3:e105. doi:10.4172/2155-6180.1000e105.

4. **Yucel, R.M.**, Yulei, H. and Zaslavsky, A.M. (2011) Gaussian-based routines to impute categorical variables in health surveys. *Statistics in Medicine,* Volume 30, Issue 29, 3447–3460.

5. **Yucel, R.M.** (2011) Inference by multiple imputation under random coefficients and random covariances model. *Statistical Modelling,* Vol. 11 No. 4, 351–370

6. **Yucel, R.M.** (2011) State of the multiple imputation software. *Journal of Statistical Software,* Vol. 45, Issue 1.

7. Yulei, H., **Yucel, R.M.** and Raghunathan , T.E. (2011) A Functional Multiple Imputation Approach to Incomplete Longitudinal Data. *Statistics in Medicine,* Volume 30, Issue 10, 1137–1156.

8. **Yucel, R.M.** and Demirtas, H. (2010) Impact of non-normal random effects on inference by multiple imputation: a simulation assessment. *Computational Statistics and Data Analysis.* Volume 54, Issue 3, 790–801.

9. **Yucel, R.M.**, He, Y. and Zaslavsky, A.M. (2008) Using calibration to improve rounding in multiple imputation. *The American Statistician*, Volume 62, Number 2, 125–129.

10. **Yucel, R.M.** (2008) Multiple imputation inference from multivariate multilevel continuous data with ignorable nonresponse. *Philosophical Transactions of the Royal Society, Series A*, Volume 366, No 1874, 2389–2403.

11. He, Y., **Yucel, R.M.** and Zaslavsky A.M. (2008) Misreporting, missing data, and multiple imputation: improving accuracy of cancer registry databases. Invited editorial for the health policy section in *Chance*, Volume 21, Number 3, 55–58.

12. Foulkes, A.S., **Yucel, R.M.**, and Li, X. (2008) Mixed modelling with ambiguous clusters: a likelihood-based approach. *Biostatistics*, Volume 9, No 4, 635–657 (doi:10.1093/biostatistics/kxm055).

13. Foulkes, A.S., **Yucel, R.M.**, Reilly, M.P. (2008) Mixed modeling and multiple imputation for unobservable genotype clusters. *Statistics in Medicine*, Volume 27, No 15, 2784–2801.

14. Demirtas, H., Freels, S.A., **Yucel, R.M.** (2008) The plausibility of multivariate normality assumption when multiply imputing non-gaussian continuous outcomes: a simulation assessment. *Journal of Statistical Computation and Simulation*,Volume 78, Issue 1, 69-84.

15. Li, X., Foulkes, AS., **Yucel, R.M.**; and Rich, Stephen M. (2007) An expectation maximization approach to estimate malaria haplotype frequencies in multiply infected children. *Statistical Applications in Genetics and Molecular Biology*, Volume 6, Issue 1, Article 33.

16. **Yucel, R.M.** and Zaslavsky, A.M. (2005) Imputation of binary treatment variables with measurement error in administrative data. *Journal of the American Statistical Association,* Volume 100, No. 472, 1123–1132.

17. Chiu, W.F., **Yucel, R.M.**, Zanutto, E., Zaslavsky, A.M. (2005) Using matched substitutes to improve imputations for geographically linked databases. *Survey Methodology,* Volume 31, Number 1, 65–72.

18. ** Schafer, J.L. and **Yucel, R.M.** (2002) Computational strategies for multivariate linear mixed-effects models with missing values. *Journal of the Computational and Graphical Statistics,* Volume 11, Number 2, 437–457.

Invited book reviews and letters

19. **Yucel, R.M.**, He, Y. and Zaslavsky, A.M. (2008) Rejoinder to "Using calibration to improve rounding in multiple imputation". *The American Statistician.* Volume 62, No 4, 364–366.

20. **Yucel, R.M.** (2008) Review of the "Missing Data in Clinical Studies" by Molenberghs and Kenward. *Journal of the American Statistical Association,* 103(484), 1717–1718.

Subject-matter collaborative publications

21. Judson, MA, Chaudhry,H, Louis, A, Lee, K, **Yucel, RM***** (2015) The Effect of Corticosteroids on Quality of Life in a Sarcoidosis Clinic: The results of a propensity analysis. To appear in *Respiratory Medicine.* Submitted on 10/2014, Accepted 1/2015.

22. Insaf, T., Shaw, BA, **Yucel, RM** and Strogatz, DS (2014) Lifecourse Socioeconomic Position and Racial Disparities in BMI Trajectories among Black and White Women: Exploring Cohort Effects in the Americans Changing Lives Study. *Journal of Racial and Ethnic Health Disparities* Submitted March, 2014, Published 8/2014. DOI: 10.1007/s40615-014-0038-y

23. Insaf TZ, Shaw BA, Yucel R, Chasan-Taber L, Strogatz D. (2014) Lifecourse Socioeconomic Position and 16 Year Body Mass Index Trajectories: Differences by Race and Sex. *Preventive Medicine.* DOI: 10.1016/j.ypmed.2014.06.024 (Submitted March, 2013 to Preventive Medicine, receive minor revision and resubmitted in May 2014, accepted in June, 2014)

24. Insaf TZ, Strogatz DS, Yucel RM, Chasan-Taber, L. and Shaw, BA (2014) Associations between race, lifecourse socioeconomic position and prevalence of diabetes among US women and men: results from a population-based panel study. *J Epidemiol Community Health.* Published Online First. doi:10.1136/jech- 2013-202585

25. Kalkanis, A, Yucel, RM, Judson, MA (2013) The Internal Consistency of PRO Fatigue Instruments in Sarcoidosis: Superiority of the PFI over the FAS. (Submitted in July 2012, revised and resubmitted in Jan 10, 2013, accepted on Jan 24, 2013) *Sarcoidosis Vasculitis and Diffuse Lung Diseases,* 30(1):60–4.

26. Severcan, F., Akkas, S.B., Turker, S., **Yucel, R.M.** (2012) Methodological Approches From Experimental to Computational Analysis in Vibrational Spectroscopy and Microspectroscopy.

27. Haley, V. B., Van Antwerpen, C., Tsivitis, M., Doughty, D., Gase, K., Hazamy, P., Tserenpuntsag, B., Racz, M., **Yucel, R. M.**, McNutt, L.-A., Stricof, R. (2012) Surveillance of coronary artery bypass graft surgical site infections in New York state, 2008. *American Journal of Infection Control*, Volume 40, 22–28.

28. Guzman MP, Jellinek M, George M, Hartley M, Squicciarini AM, Canenguez K, Kuhlthau K, **Yucel RM**, White G, Guzman J, Murphy JM. (2011) Mental health matters in elementary school; First grade screening predicts fourth grade achievement test scores. *European Child and Adolescent Psychiatry,* 20(8):401–411.

    Reprint:

    Guzman, M. P., Jellinek, M., George, M., Hartley, M., Squicciarini, A. M., Canenguez, K.M., Kuhlthau, K., Yucel, R., White, G., Guzman, J., Murphy, J.M. (2011) (Lotterer, S & Guzman, J (translators)) . La Salud mental importa en la educacin bsica: pesquisa en 1 bsico predice rendimiento acadmico en SIMCE de 4 basico. *Revista Chilena de Psiquiatria y Neurologia de la Infancia y Adolescencia,* In press.

29. Gordon, E.J., Prohaska, T.R., Gallant, M.P., Sehgal, A.W., Strogatz, D., **Yucel, R.M.**, Conti, D. and Siminoff, A.S. (2009) Longitudinal analysis of physical activity, fluid intake, and graft function among kidney transplant recipients. *Transplant Journal,* Volume 22, Issue 10, 990–998.

30. Co, J.P.T., **Yucel, R.M.**, MacDonald, E., Ferris, T.G. (2009) Priorities for Improvement in Pediatric Ambulatory Care. *Ambulatory Pediatrics,* Volume 9, Issue 1, 47–52.

31. Tang, M., Hill, K.S., **Yucel, R.M.**, Perrin, J.M., Kuhlthau, K.A. (2008) Medicaid Managed Care and the Unmet Need for Mental Health Care among Children with Special Health Care Needs. *Health Services Research,* Volume 43, Issue 3, 882–900.

32. Kim, M., Betancourt, J., Ayanian, J., Zaslavsky, A.M., **Yucel, R.M.**, Weissman, J.S. (2008) Access to Care and Use of Preventive Services by Hispanics State-Based Variations From 1991 to 2004. *Medical Care,* Volume 46, Issue 5, 507–515.

33. Hill, K., Freeman, L., **Yucel, R.M.**, Kuhlthau, K. (2008) Unmet need among children with special care needs in Massachusetts. *Maternal and Child Health Journal,* Volume 12, Issue 5, 650–661.

34. Shields, A.E., Levy, D.E., Blumenthal, D., Currivan, D., McGinn-Shapiro, M., Weiss, K.B., **Yucel, R.M.**, and Lerman, C. (2008) Anticipating complexity: Primary care physicians' willingness to offer a new genetic test to tailor smoking treatment according to test characteristics. *Nicotine & Tobacco Research*, Volume 10, Issue 6, 1037–1045.

35. Gnanasekaran, S.K., Boudreau, A.A., Soobader, M., **Yucel, R.M.**, Hill, K. and Kuhlthau, K. (2008) State policy environment and delayed or forgone care among children with special health care needs. *Maternal and Child Health Journal,* Volume 12, Number 6, 739–746.

36. Kuhlthau, K., Hill, K., Fluet, C., Meara, E., **Yucel, R.M.** (2008) Correlates of therapy use and expenditures in children in the United States. *Developmental Neurorehabilitation,* Volume 11, Issue 2, 115–123, doi: 10.1080/17518420701605627.

37. Zheng, H., **Yucel, R.M.**, Ayanian, J.Z., Zaslavsky, A.M. (2006) Profiling Providers on Use of Adjuvant Chemotherapy by Combining Cancer Registry and Medical Record Data. *Medical Care,* Volume 44, Issue 1, 1–8.

38. Vogeli, C.,**Yucel, R.M.**, Bendavid, E., Jones, L.M., Anderson, M.S., Louis, K.S., Campbell, E.G. (2006) Data withholding and the next generation scientists: results of a national survey. *Academic Medicine,* Volume 81, Issue 2, 128–136.

39. Blumenthal, D., Campbell, E.G., Gokhale, M., **Yucel, R.M.**, Clarridge, B., Hilgartner, S., Holtzman, N.A. (2006) Data withholding in genetics and the other life sciences: prevalence and predictors. *Academic Medicine,* Volume 81, Issue 2, 137–145.

40. Kuhlthau, K.A., Hill, K.S., **Yucel, R.M.**, Perrin, J.M. (2005) Financial burden for families of children with special health care needs. *Maternal and Child Health Journal,* Volume 9, Number 2, 207–218.

41. Campbell, E.G., Weissman, J.S., Clarridge, B., **Yucel, R.M.**, Blumenthal, D. (2003) Characteristics of faculty serving on IRBs: Results of a national survey of medical faculty. *Academic Medicine,* Volume 78, 831–836.

42. Weissman, J.S., Moy, E., Campbell, E.G., Gokhale, M., **Yucel, R.M.**, Blumenthal, D. (2003) Limits to the safety net: Teaching hospital faculty report on their patients' access to care. *Health Affairs*, Volume 22, Number 6, 156–166.

Proceeding papers and technical reports (non-refereed)

43. Wu, M. and **Yucel, R.M.** (2011) Model-based (potential outcome) estimation of ACE and its variance in clustered data. *Proceedings of the Survey Research Methods Section of the American Statistical Association.*

44. **Yucel, R.M.** (2009) Imputation of ordinal variables using Gaussian-based routines. *Proceedings of the Survey Research Methods Section of the American Statistical Association.*

45. *Zhao, E. and **Yucel, R.M.** (2009) On the compatibility of sequential hierarchical regression imputation. *Proceedings of the Survey Research Methods Section of the American Statistical Association.*

46. **Yucel, R.M.**, Ding, H., Uludag, A.K., Tomaskovic-Devey, D. (2008) Multiple imputation in multiple classification and multiple-membership structures. *Proceedings of the Section on Bayesian Statistical Science of the American Statistical Association.*

47. **Yucel, R.M.** and Raghunathan, T.E. (2006) Sequential imputation using hierarchical regression. *Proceedings of the Health Policy Statistics Section of the American Statistical Association.*

48. **Yucel, R.M.** and Zaslavsky, A.M. (2004) Practical suggestions on rounding in multiple imputation. *Proceedings of the Survey Research Methods Section of the American Statistical Association*, 4679–4683.

49. **Yucel, R.M.** and Zaslavsky, A.M. (2001) Imputation of binary responses with measurement error for treatments in health services data. *Proceedings of the Health Policy Statistics Section of the American Statistical Association.*

50. Calvin, C., **Yucel, R.M.**, Zanutto, E., Zaslavsky, A.M. (2001) Using matched substitutes to improve imputations for geographically linked databases. *Proceedings of the Survey Research Methods Section of the American Statistical Association.*

51. **Yucel, R.M.** and Schafer, J.L. (1999) Parameter estimation in multivariate linear mixed models with possible missing values. *Technical report No 99-36.* The Methodology Center, The Pennsylvania State University, University Park, PA.

52. Schafer, J.L. and **Yucel, R.M.** (1998) Fitting multivariate linear mixed models with incomplete data. *Proceedings of the Statistical Computing Section of the American Statistical Association*, 177–182. (Condensed from TR# 99-36)

Publications: Currently under review

1. Shresthaa,S, Bloom, MS, **Yucel, RM**, Seegal, RF, Kannan, K, Rej,R, Fitzgerald, EF. Perfluorinated Compounds and Thyroid Function in Older Adults. Environmental International (submitted in July, 2014, received minor revision on Oct 27, 2014)

2. Judson, MA, Chaudry, H, Louis, A, Lee, K, Yucel, RM * The Effect of Corticosteroids on Quality of Life in a Sarcoidosis Clinic (Submitted to Chest, June 2014)

3. Cogan, LW, Muse, AG, Weller, W, Yucel, RM, McClamroch, K, Kacica, MA Use of Administrative Data to Estimate the Prevalence of Chlamydia among Young Women in New York State Medicaid Managed Care (Submitted Oct, 2013 to Sexually Transmitted Diseases)

4. **Yucel, R.M.**, Tomaskovic-Devey, D. Multiple imputation in multiple classification and multiple-membership structures (under review, Journal of the Royal Statistical Society, Series C).

5. *Zhao, E., **Yucel, R.M.**, Raghunathan, T.E. , Schenker, N. On the compatibility and feasibility of sequential hierarchical regression imputation.

Publications: About to be submitted or in progress

1. **Yucel, R.M.** Improving coherence of sequential imputation by calibration.

2. **Yucel, R.M.** Logistic mixed-effects models with ambiguous cluster membership. *Computational Statistics and Data Analysis.*

3. **Yucel, R.M.**, Boscoe, F., and Schymura, M. Gaussian-based routines for imputing clustered categorical data: Application to NY State Cancer Registry.

4. * Wu, M. and **Yucel, R.M.** Model-based and multiple-imputation-based estimation of average causal effect in clustered-data

5. **Yucel, R.M.** Modeling strategies for imputing in complex correlated incomplete data.

6. * **Yucel, R.M.** and Karabulut, E. Inferential adaptation of multiple imputation in measurement error problems.

7. Friedman, S., Galvan, C., and **Yucel, R.M.** Generational Patterns in Hispanic Locational Attainment in Houston, 2003-2007.

Software authored

MLMMM	Parameter estimation routines under a multivariate linear mixed-effects model with missing values. Routines described in Schafer and Yucel (2002) and Yucel (under review). Further documentation is available at http://cran.r-project.org/web/packages.
MLD.IMP	Multiple imputation of multivariate multilevel data under a random-effects, random-covariances model. In preparation.
SHRIMP	R package for sequential hierarchical regression imputation. In preparation (Joint with Zhao, E.).
fourMC	R package for MI and ML in multiple-classification and multiple-membership structures. In preparation.

Invited workshops and short courses taught (Both national and international)

September 2014	"Pragmatic approaches to building multiple imputation models in complex data structures" Invited lecture at the XVI. National Biostatistics Conference, Antalya, Turkey.
May 2009	"Missing data in longitudinal studies" Workshop taught at the 5th Conference of the Eastern Mediterranean Region of the International Biometric Society. Istanbul, Turkey.
April 2008	"Introduction to missing data methods" Schneider Institute for Health Policy, Brandeis University, MA, USA.
May 2008	"Missing data methods: theory, practice and software" Center for Social and Demographic Analysis, University at Albany, SUNY, Albany, NY, USA.
June 2008	"Practice of modern missing data methods" Annual Research Meeting, Academy Health. Washington, DC, USA.
March 2007	"Missing data and associated software" Harvard Clinical Research Institute, Statistical Seminar Series "Key Statistical Methods for Clinical Trials", Harvard Medical School, Boston, MA, USA.
June 2006	"Statistical analysis of multivariate incomplete data" Department of Economics, TOBB Economy and Technology University . Ankara, Turkey
Jan. 2006	"What to do about missing data: tools for practitioners" The Center for Research on Families, University of Massachusetts, Amherst, MA, USA.
Oct.-Dec. 2001	"Statistical methods and software for analyzing multivariate incomplete data." Harvard Medical School (workshop of four parts). Boston, MA, USA.

Invited seminars at universities, institutes and government agencies (Both national and international)

June 2013	"Calibration-based sequential multiple-imputation" International Chinese Statistical Association Meetings, Virginia, Washington DC, USA.
Oct. 2013	"Calibration-based sequential multiple-imputation" University of Connecticut, Department of Statistics, Stors, Connecticut, USA.
Oct. 2011	"Improving the coherence of sequential imputation via calibration" International conference on health policy statistics, Cleveland, Ohio, USA.
April 2010	"Gaussian-based routines for imputing clustered categorical data" New England Statistical Symposium, Department of Statistics, Harvard University, MA, USA.
April 2010	"Analysis of incomplete longitudinal data" School of Social Welfare, University at Albany, Albany, NY, USA.
December 2009	"Calibration-based inference for incompletely-observed ordinal variables using Gaussian-based routines." Department of Biostatistics and Epidemiology, University of Massachusetts, Amherst, MA, USA.
July 2009	"MCMC-based routines for handling missing data in panel data" Department of Statistics, Middle East Technical University, Ankara, Turkey.
January 2009	"Inference via multiple imputation in multiple classification and multiple-membership structures." Albany Chapter of American Statistical Association, Albany, NY, USA.
April 2008	"Issues with missing data", Invited discussant. AdvaMed/FDA Statistics Conference, Bethesda, DC, US.
June 2007	"Using multiple imputation in the analysis of incomplete data: A practitioner's perspective", workshop on statistical methods for missing multivariate data, Annual Research Meeting, Academy Health. Orlando, FL, USA.
April 2007	"Strategies for developing imputation models for multivariate multilevel incomplete data", New England Statistics Symposium, University of Connecticut Storrs, CT, US.
October 2006	"Multiple imputation for incomplete multilevel data with SHRIMP" Conference on "New Methods for the Analysis of Family and Dyadic Processes" organized by the Center for Research on Families, University of Massachusetts, Amherst, MA, USA.
June 2006	"Sequential hierarchical regression imputation" Department of Statistics, Middle East Technical University. Ankara, Turkey.
April 2006	"Missing data in cluster samples: Design-based and Bayesian perspectives" Department of Statistics, University of Connecticut.
March 2006	"Missing data in cluster samples: Design-based and Bayesian perspectives" ENAR Meetings, Tampa, Florida
Oct. 2005	"SHRIMP: sequential hierarchical regression imputation" International Conference on Health Policy Research, Boston, MA, USA.

Aug. 2004	"Practical suggestions on rounding in multiple imputation" Joint Statistical Meetings, Toronto, Canada.
Aug. 2003	"Imputation of binary treatment variables with measurement error in administrative data." International Conference for Health Policy Research, Chicago, IL.
Jan. 2003	"PAN-PLUS : Software for multiple imputation inference for incomplete multilevel data." International Biometric Society, Antalya, Turkey.
Jan. 2003	"Imputation of binary responses with measurement error for treatments in health services data." International Biometric Society, Antalya, Turkey.
Nov. 2002	"Flexible imputation techniques for incomplete multivariate multilevel data." National Center for Health Statistics, Hyattsville, MD.
Aug. 2002	"Computational strategies for handling missing values in panel surveys." Koc University, Istanbul, Turkey.
Aug. 2002	"Data augmentation strategies in multivariate multilevel incomplete data." Joint Statistical Meetings, New York, NY.
May. 2002	"Data accuracy problems and solutions for California Cancer Registry Database."Harvard University, Boston, MA.
May. 2002	"Using matched substitutes to improve imputations for geographically linked databases." Harvard University, Boston, MA.
Dec. 2001	"Flexible imputation techniques for incomplete multivariate multilevel data." Brown University.
Nov. 2001	"Computational tools for missing values in multivariate multilevel data." Harvard University.
Oct.-Dec. 2001	"Imputation techniques for incomplete multivariate multilevel data." Department of Biostatistics, Harvard School of Public Health. Boston, MA, USA.
Oct. 1999	"Model fitting techniques for multivariate multilevel models with incomplete data." Tufts University, Boston, MA USA.

Contributed Papers presented at professional meetings

Aug. 2009	**Yucel, R.M.**, Yulei, H. and Zaslavsky, A.M. "Imputation of ordinal variables using Gaussian-based routines." Joint Statistical Meetings, Washington, DC.
Aug. 2008	**Yucel, R.M.** "Inference via multiple imputation in multiple classification and multiple-membership structures." Joint Statistical Meetings, Denver, CO.
Aug. 2003	**Yucel, R.M.**, Schenker, N., Raghunathan, T.E. "Multiple imputation using sequential hierarchical regression models" Contributed paper presented at the Joint Statistical Meetings, San Francisco, CA.
Aug. 2001	**Yucel, R.M.** and Schafer, J.L. "Software for multiple imputation of multivariate panel and clustered data." Contributed paper presented at the Joint Statistical Meetings, Atlanta, GA.

June 2000 **Yucel, R.M.** and Schafer, J.L. "Flexible imputation techniques for incomplete longitudinal or multilevel data." Invited paper presented at the 8th Annual Society for Prevention Research Conference, Montreal, Canada.

Aug. 1999 **Yucel, R.M.** and Schafer, J.L. "Computational methods for multivariate longitudinal and clustered data with missing values." Contributed paper presented at the Joint Statistical Meetings, Baltimore, MD.

June 1999 **Yucel, R.M.** and Schafer, J.L. "Methods for missing values in multivariate longitudinal and clustered data." Invited poster presented at the 7th Annual Society for Prevention Research Conference, New Orleans, LA.

Aug. 1998 **Yucel, R.M.** and Schafer, J.L. "Fitting multivariate linear mixed models with incomplete data." Contributed paper at the Joint Statistical Meetings, Dallas, TX.

Aug. 1997 **Yucel, R.M.** and Schafer, J.L. "A rapidly mixing MCMC algorithm for the general linear mixed model." Contributed paper at the Joint Statistical Meetings, Anaheim, CA.

Papers presented by co-authors

Aug. 2009 Zhao, E. (presenter) and **Yucel, R.M.** "On the compatibility of sequential hierarchical regression imputation." Joint Statistical Meetings, Washington, DC.

April 2007 Foulkes, A.S., **Yucel, R.M.**, and Li, X. "Gene association studies using mixed models with ambiguous clusters", European Mathematical Genetics Meeting, Heidelberg, Germany. (peer-reviewed)

Dec. 2005 Hill, **Yucel, R.M.**, Kuhlthau, K. "Measuring childhood disability: The International Classification of Functioning, Disability and Health (ICF) and the CSHCN Screener in the Medical Expenditure Panel Survey", American Public Health Association, Philadelphia, PA.

Aug. 2003 Khare, M. (presenter), **Yucel, R.M.** "A comparison of conventional estimates of vaccination coverage with estimates obtained from multiply imputed dataset using available software for multiple imputation" Contributed paper presented at the Joint Statistical Meetings, SanFrancisco, CA.

Aug. 2001 **Yucel, R.M.** and Zaslavsky, A.M. (presenter) "Imputation of binary responses with measurement error for treatments in health services data." Contributed paper presented at the Joint Statistical Meetings, Atlanta, GA.

Aug. 2001 Calvin, C. (presenter), **Yucel, R.M.**, Zaslavsky, A.M., Zanutto, E. "Using matched substitutes to improve imputations for geographically linked databases." Contributed paper presented at the Joint Statistical Meetings, Atlanta, GA.

Oct. 1998 Schafer, J.L. (presenter) and **Yucel, R.M.** "Multiple imputation with PAN." Invited paper presented at the New Methods for the Analysis of Change Conference, The Pennsylvania State University, University Park, PA

Service to the profession

- **Co-Editor**, *Health Services and Outcomes Research Methodology* (2014–present)
- **Scientific Planning Comittee Member**, *International Conference on Health Policy Statistics (ICHPS)* (2006–present)
- **Organizing Comittee Member**, *2nd International Conference and Exhibition on Biometrics & Biostatistics Statistics (ICHPS)* (2013)
- **Program Chair-Elect:** Health Policy Section of the American Statistical Association (2010–2011)
- **Scientific reviewer:** National Science Foundation (2010)
- **Scientific reviewer:** Study section, Susan G. Komen for the Cure Grants Program - Localized Chemotherapies (LCT) (2008, 2009)
- **Scientific reviewer:** Study section, Deployment Related Medical Research Program, Department of Defense (2008)
- **Referee** for *Statistics, Policy and Politics*, *Biometrics*, *Journal of the Computational and Graphical Statistics*, *The American Statistician*, *Biometrical Journal*, *Journal of Official Statistics*, *Survey Methodology*, *Statistica Sinica*, *Journal of the American Statistical Association*, *Communications in Statistics Theory & Methods*, *Circulation*, *Academic Pediatrics*, *Journal of Quality of Life*, *Psychological Methods*, *BioMed Central*
- **Reviewer** for Springer Publishers (2006)
- **Advisory Board Member**, *Turkish Clinics Journal of Biostatistics (2009–present)*
- **Organizer** of several invited sessions in international meetings such as ENAR (2008), Joint Statistical Meetings (2009), ICHPS (2008, 2010) on themes such as missing data techniques & diagnostics, causal inference, combining information across multiple data sources.

Institutional Service

University at Albany, SUNY

Departmental Committees

2011–Present Chair, Epidemiology and Biostatistics Personnel Committee

2011–2012 Epidemiology and Biostatistics Faculty Search Committee

2008–Present Chair, Biostatistics Graduate Program Admission Committee

2008–Present Epidemiology and Biostatistics Website Committee

School Committees

2011–Present Committee on Tenure Promotion and Continuing Appointments School of Public Health

2009–Present Chair, School of Public Health Evaluation Committee

2010–Present School of Public Health Grievance Committee

University Committees

2009–Present University Council on Research FRAP Committee

Institutional Service

University of Massachusetts, Amherst

Departmental Committees

2004–2007 Biostatistics Graduate Program Admission Coordinator

2004–2007 Doctoral candidacy and comprehensive exam committee

2005–2006 Biostatistics and Epidemiology Colloquium Organizer

School Committees

2004–2007 Curriculum Committee

University Committees

2004–2005 Internal research grant reviewer

Courses Taught at University at Albany, SUNY

Semester(s)	Course	Title
Fall 2011	HSTA 558	Data Analysis I
Spring 2009, 2010, 2011	HSTA 670A (3 credits)	Longitudinal Data Analysis (new course)
Fall 2008, 2009, 2010, 2011	HSTA 610 (3 credits)	Statistical Analysis with Missing Data (new course)
Fall 2009	HSTA 550 (1 credit)	Introduction to R (*new course*)

Courses Taught at University of Massachusetts

Semester(s)	Course	Title
Spring 2006	BIOEPI 796A (3 credits)	Advanced Statistical Computation (*new course*)
Spring, Fall 2005, Fall 2006	BIOEPI 743 (3 credits)	Analysis of Categorical Data
Fall 2004	BIOEPI 540 (3 credits)	Introduction to Biostatistics

Doctoral Advisees

Name	Degree Program & University	Title
Tugba Hocagil (in progress)	Ph.D. in Biostatistics	
Enxu Zhao (in progress)	Ph.D. in Biostatistics UAlbany	Sequential hierarchical regression imputation
Meng Wu (in progress)	Ph.D. in Biostatistics UAlbany	Causal inference in complex incomplete data
Kuangnan Xiong (expected in 2013)	Ph.D. in Biostatistics UAlbany	Multiple imputation and random forests in binary classification

Doctoral Committees

Name	Degree Program	University
Ashley Giambrone (2013)	Ph.D. in Biostatistics	UAlbany
Georgia Brooke (2013)	Ph.D. in Education	UAlbany
Ata Ashar (in progress)	Ph.D. in Epidemiology	UAlbany
Srishti Shrestha (in progress)	Ph.D. in Epidemiology	UAlbany
Keewan Kim (in progress)	Ph.D. in Environmental Health	UAlbany
Sanghamitra Savadatti (in progress)	Ph.D. in Epidemiology	UAlbany
Liyi Cen (in progress)	Ph.D. in Biostatistics	UAlbany
Derek Cyr (2011)	Ph.D. in Biostatistics	UAlbany
Tabassum Insaf (2012)	Ph.D. in Epidemiology	UAlbany
Aely Park (2011)	Ph.D. in Social Welfare	UAlbany
Bo Xu (2007)	Ph.D. Biostatistics	UMass
Meng-Shiou Shieh (2007)	Ph.D. in Mathematics and Statistics	UMass

Master's Advisees

Name	Degree Program & University
Tang, Honglei (in progress)	MS in Biostatistics, UAlbany
Yu, Chen (2013)	MS in Biostatistics, UAlbany
Lu, Lu (in progress)	MS in Biostatistics, UAlbany
Storch, Jashua (2013)	MS in Biostatistics, UAlbany
Samira, Ramadan (2012)	MS in Biostatistics, UAlbany
Meiwao, Fan (2012)	MS in Biostatistics, UAlbany
Schaeffer, Richard (2012)	MS in Biostatistics, UAlbany
Thomas, Sanil (2011)	MS in Biostatistics, UAlbany

Master's Committees (attended all MS students' committees since 2010)

Name (Year)	Degree Program	University
Yan Wu (2009)	MS in Biostatistics	UAlbany
Wei Jiang (2009)	MS in Biostatistics	UAlbany
Ashley Viola (2009)	MS in Biostatistics	UAlbany
Diana Nadler (2009)	MS in Biostatistics	UAlbany
Gul Inan (2009)	MS in Statistics	Middle East Technical University
Alex Knee (2006)	MS in Epidemiology	UMass
Allison Crawford (2006)	MS in Biostatistics	UMass
William Parsons (2005)	MS in Epidemiology	UMass
Timothy J. Wright (2005)	MS in Epidemiology	UMass
Kathleen Beach (2005)	MS in Epidemiology	UMass

Academic honors

2013 Delta Omega Honorary Society Membership

2009-2010 Junior faculty researcher award by the Center for Social and Demographic Analysis, University at Albany

Elected as a 2002–2003 Research Fellow under American Statistical Association and National Center for Health Statistics Fellowship Program

Travel grant awarded by the Department of Statistics, The Pennsylvania State University (1997, 1998, 1999, 2000)

Awarded a scholarship for graduate study in the United States by the Council of Higher education of the Republic of Turkey (1993–1996)

Graduated with honors, Gazi University (1992)

Professional memberships

American Statistical Association, Institute of Mathematical Statistics