**Bio**

**Jeffrey R. Wilson, PhD**

**Professor of Statistics & Biostatistics**

**jeffrey.wilson@asu.edu**

Jeffrey Wilson is a Professor of Statistics and Biostatistics. He is the former Director of the School of Health Management and Policy and a former Chair of the Editorial Board of the *American Journal of Public Health*. He is a former Director and co-Director of the Biostatistics Core in the NIH Center for Alzheimer at Arizona State University. His past leadership experiences include roles as Arizona representative to American Statistical Association; Chair for Section on Statistics [American Public Health Association](http://apha.org/); the Director of the Interdisciplinary Program in Statistics at Arizona State University; and President of the Arizona Chapter of the American Statistical Association. In 1997, he was assigned to serve as a biostatistician on the Presidential committee on non-conventional practices to medicine. He is a former editorial board member of the *Journal of Health Education* & Development and served on the Membership Committee of American United Program Health Association. He is a former chair of the Intercollegiate Athletic Board at Arizona State University, and served as the chair of the *Gender, Diversity, and Student Well-being* subcommittee for the National Collegiate Athletic Association (NCAA). He is also the former President of the PAC-12 council and the present PAC-12 FAR representative to 1A FAR association. He is presently the Statistics Associate Editor for *The Journal of Minimally Invasive Gynecology* and the Faculty Athletics Representative for Arizona State University.

Dr. Wilson’s research experience includes grants as PI and co-PI from the NIH, NSF, USDA, Arizona Department of Health Services, and the Arizona Disease Research Commission. He has published more than 80 articles in leading journals such as *Statistics in Medicine*, *American Journal of Public Health*, *Journal of Royal Statistics Series* C, *Management Science*, *Journal of Business and Economic Statistics*, *Computational Statistics*, and *Australian Journal of Statistics*, among others. He has consulted with pharmaceutical companies and hospitals while representing them before the FDA and other federal government healthcare agencies.

Professor Wilson has also served as an expert witness in legal cases concerning construction defects, sampling, insurance, patient billing, job discrimination, profiling, shoplifting, and cheating allegations on law school exams. He has worked with attorney general offices in Minneapolis, Flagstaff, and Phoenix on racial profiling.

Dr. Wilson received his BA in Mathematics from the University of the West Indies and his MS and PhD in Statistics from the Iowa State University. He taught graduate courses in MBA Analytic programs and Executive MBA programs, as well as graduate courses in the areas of biostatistics, sampling, regression analysis, categorical data analysis, survival analysis, and generalized linear models, as well as undergraduate honors statistics courses in Business for Barrett Honors students. He has also taught specialized Biostatistics classes at Mayo Clinic. He has led similar courses for Phoenix Children’s Hospital, Barrow Neurological Center, St. Joseph’s Hospital, Banner Hospital, and Jobing.com. He helped to build syllabi and programs at Zayed University, Dubai, and University of Pretoria, South Africa.

VITAE

**Jeffrey R. Wilson** **jeffrey.wilson@asu.edu**

## **I. General Information**

**Initial Appointment at ASU***:* **Jan 1, 1985**

|  |  |
| --- | --- |
| **Present Rank** | Professor, Department of Economics, Arizona State University |
| **Address** | CPCOM 495D Tempe, Arizona State University, AZ 85287-9801 |
| **Phone** | 480-965-5628; 480-213-4460 [**cell**]; 480-965-0748 [**fax**] |
| **Email** | jeffrey.wilson@asu.edu |
| **Skype** | jeffreyw2012 <http://www.public.asu.edu/~jeffreyw> |
| **Google Scholar** | https://scholar.google.com/citations?user=T9CZ9-UAAAAJ&hl=en |

## **II. Education**

**PhD** **Statistics** Iowa State University of Science and Technology, Ames, Iowa **May 1984**

**MS Statistics** Iowa State University of Science and Technology, Ames, Iowa **May 1980**

**BA Math and Economics** University of the West Indies, Trinidad, West Indies **Jun 1977**

## **III. Professional Experience**

**[Administrative]**

**Co-Chair President’s Advisory Council on African American Affairs Oct 2020- present**

Assist the president in ensuring the success of Black faculty and staff and the growth of students, while also convening and engaging the Black community at ASU, locally and nationally on a variety of issues.

**PAC-12 1-FAR Representative Jan 2019-present**

Pac-12 Representative to National 1A FAR’s

**Faculty Athletic Representative [Far] Jul 2014-Present**

Office of the President, Arizona State University Tempe, Arizona

**President PAC-12 Council Jun 2017- 2018**

Pacific American Conference -12 San Francisco, California

**President Elect**   **Feb 2017- 2017**

Pacific American Conference -12 San Francisco, California

**co-Director** Data Management and Biostatistics Core **Jul 2009-12**

National Institute of Health Center, Arizona State University

**Director** Data Management and Biostatistics Core **Jul 2006-09**

National Institute of Health Center, Arizona State University

**Director** School of Health Management and Policy **Jul 2003-06**

W. P. Carey School of Business, Arizona State University

**Interim Director** School of Health Management and Policy  **Jun 2002-03**

W. P. Carey School of Business, Arizona State University, Tempe Arizona

**Director** Interdisciplinary Program in Statistics **Jul 1991-96**

Graduate College, Arizona State University, Tempe Arizona

## **Professional Experience**

**[Teaching and Research]**

 **Arizona State University – Tempe, Arizona**

**Professor of Statistics and Biostatistics Jul 2020🡪**

Department of Economics, W. P. Carey School of Business

**Associate Professor of Statistics and Biostatistics Jul 2006-20**

Department of Economics, W. P. Carey School of Business

**Associate Professor of Biostatistics Jul 1994-06**

School of Health and Administration Policy, W. P. Carey School of Business **Jul 2002-06**

**Associate Professor of Statistics Jul 1996-02**

Department of Economics, W. P. Carey School of Business

**Associate Professor of Statistics Jul 1991-95**

Department of Decision and Information System, College of Business

**Assistant Professor of Statistics** **Jan 1985-91**

Department of Decision and Information System, College of Business

**Other Institutions besides Arizona State University**

**Visiting Professor of Statistics** Department of Statistics **Jul 2018-20**

University of Pretoria, Pretoria South Africa

**Division Director** Health Administration and Policy **Jul 2002-04**

Mel and Enid Zuckerman College of Public Health, University of Arizona Tucson

**Concentration Director** Health Administration and Policy **Jul 2002-04**

Mel and Enid Zuckerman College of Public Health, University of Arizona Tucson

**Associate Professor of Biostatistics** Health Administration and Policy **Jul 2000-04**

Mel and Enid Zuckerman College of Public Health, University of Arizona Tucson

**Associate Professor of Epidemiology** Graduate Interdisciplinary Program **Jul 1994-04**

Mel and Enid Zuckerman College of Public Health, University of Arizona Tucson

**Co-Director** Drew Surgical Research Group, Department of Surgery **Jul 1993-96**

Charles Drew University of Medicine and Science – Los Angeles California

**Adjunct Professor of Surgery** Department of Surgery **Jul 1992-93**

Charles Drew University of Medicine and Science – Los Angeles California

**Associate Professor of Biostatistics** Health Administration **Jul 1990-94**

Department of Health Science, University of Colorado Denver Colorado

**Visiting Assistant Professor of Statistics** Department of Statistics **Aug 1983-84**

Oklahoma State University, Stillwater, Oklahoma

**Teaching Assistant** Statistical Laboratory, Department of Statistics **Aug 1982-83**

College of Liberal Arts, Iowa State University – Ames, Iowa

**Consultant/Director** Tutorial services, Minority Student Affairs **Jan 1981-83**

Office of President, Iowa State University Ames, Iowa

**Teaching Assistant** Department of Mathematics **Aug** **1980-83**

College of Liberal Arts, Iowa State University Ames, Iowa

**Teaching Assistant** Ninth in Service Training Course in Statistics **Aug 1978-78**

University of the West Indies, Port of Spain Trinidad WI

**Teaching Assistant** Department of Mathematics **Sep 1977-78**

University of the West Indies, Port of Spain Trinidad WI

**Statistician** National Accounts Section  **Oct 1977-78**

Central Statistical Office, Port of Spain, Trinidad WI

 **Team Teaching** St Joseph Convent College **Nov 1977-78**

Ministry of Education and Culture Port of Spain Trinidad WI

**IV. Research**

## **Research Interests**

Categorical data models; generalized linear mixed models; general analysis applications.

**Refereed Journal Articles**

My research consists of work with my PhD students, master’s students, Barrett Honors students and my own interests with other researchers in statistics and other related issues.

1. Vazquez Arreola$‡$, E; **Wilson, J.:** "Partitioned MVM Marginal Model with Bayes estimates for correlated data and time-dependent covariates" .Computational Statistics ***accepted***
2. [Ozcan M.](https://www.sciencedirect.com/science/article/pii/S155346502031102X#!) [,](https://www.sciencedirect.com/science/article/pii/S155346502031102X%22%20%5Cl%20%22%21) **[Wilson, JR](https://www.sciencedirect.com/science/article/pii/S155346502031102X%22%20%5Cl%20%22%21)**[, and](https://www.sciencedirect.com/science/article/pii/S155346502031102X%22%20%5Cl%20%22%21) [Frishman, G](https://www.sciencedirect.com/science/article/pii/S155346502031102X%22%20%5Cl%20%22%21) (2020) A systematic review and meta-analysis of surgical treatment of ectopic pregnancy with salpingectomy versus salpingostomy ***Journal of Minimally Invasive Gynecology*** 2020, ISSN 1553-4650,
3. Chen Z, Dornelles A, Fang D, **Wilson JR**. Impacts on knowledge and testing on HIV in waves of Mozambique surveys with Bayes estimates. ***PLoS One***. 2020;15 (12):e0244563. doi: 10.1371/journal.pone.0244563. PMID: 33373426.
4. Quiroz J, Vazquez E$‡$, **Wilson, J. R** Dabbara A and Cheung J. Models for Counts and Particle Size Distributions of Sub-visible Particle Data. PDA ***Journal of Pharmaceutical Science and Technology***. pdajpst.2020.011510. 10.5731/pdajpst.2020.011510.
5. Fang, D., Lang, A. & **Wilson, J.R**. HIV survey in Mozambique: analysis with simultaneous model in contrast to separate hierarchical models. ***Arch Public Health*** **78,**70 (2020). https://doi.org/10.1186/s13690-020-00453-8
6. Blinkoff, J. Voeller, M. Graham, S and **Wilson J.R**. Predictive Modeling of 4th Down Conversion in Power 5 Conferences: Football Data Analytics, ***Sports Journal vol. 21 issue 4 Aug 2020***
7. Arreola$‡$-Vazquez, E, Irimata$‡$, K. E **& Wilson, J. R** Common errors of interpretation in Biostatistics. ***Biostatistics & Epidemiology*** 4:1, 238- 246,
8. Vazquez Arreola$‡$ E, **Wilson JR**, Chen D Analysis of correlated data with feedback for time-dependent covariates in psychiatry research ***General Psychiatry***2020;**33:**e100263. doi: 10.1136/ gpsych-2020-100263
9. Vazquez-Arreola$‡$, E., Xue, D. & **Wilson, J.R**. (2020) Use of partitioned GMM marginal regression model with time-dependent covariates: analysis of Chinese Longitudinal Healthy Longevity Study. ***BMC Med Res Methodology*** **20,** 128 (2020). 12874-020-01003-0
10. Arreola$‡$-Vazquez, E. & **Wilson, J. R** [2020]  Bayesian multiple membership multiple classification logistic regression model on student performance with random effects in university instructors and majors. ***PLoS ONE*** 15(1): 15(1):e0227343. doi: 10.1371/journal.pone.0227343. PMID: 31999699; PMCID: PMC6992165.
11. Decourt B, **Wilson, J. R**, Ritter A, Dardis C, DiFilippo FP, Zhuang X, [Cordes D](https://orcid.org/0000-0001-6574-5546), Lee G, Fulkerson ND, St Rose T, Hartley K, Sabbagh MN "MCLENA-1: a Phase II clinical trial for the assessment of safety, tolerability, and efficacy of lenalidomide in patients with mild cognitive impairment due to Alzheimer’s disease. [***Open Access Journal of Clinical Trials***](https://www.dovepress.com/open-access-journal-of-clinical-trials-journal) January 2020 Vol 2020:12 Pages 1—13
12. Irimata$‡$, K. E., & **Wilson, J. R**. (2019). Modification of the generalized quasi-likelihood model in the analysis of the Add Health study. ***Statistical Methods in Medical Research***. https://doi.org/10.1177/0962280219884980
13. Irimata$‡$, KE. Broatch, J & **Wilson, J. R**. [2019] Partitioned GMM logistic Regression Models for longitudinal Data. ***Statistics in Medicine****;* 38, 12, (2171-2183)
14. Wang$‡$, B. Zheng, Y. Fang D. Kamarianakis, Y. **Wilson, J. R**. [2019] Split Cluster Bootstrap Hierarchical Modeling Abuse of Antibiotics in China ***Statistics in Medicine***; 38, 12, (2282-2291),
15. Fang, D. Irimata$‡$, K, Rhodes$†$, R & **Wilson, J. R**. [2019] Obesity Transition from adolescent to adulthood and feedback partial GMM logistic model with associations ***Epidemiology, Biostatistics and Public Health***Volume 16, Number 1
16. Irimata$‡$, KE. Yanez$‡$, ND. Aljasser$‡$, IA. & **Wilson, J. R.** [2019] Modeling with the power variance form of the gamma distribution. [***Journal of Advances in Mathematics and Computer*** *Science*](http://www.sciencedomain.org/journal/68) 30(1): 1-13; Article no.JAMCS.45962
17. Wang$‡$, B. Zheng, Y & Irimata$‡$, K. & **Wilson, J. R**. [2019] Bootstrap ICC estimators in analysis of small clustered binary data, ***Computational Statistics*** pp 1-14
18. Falcone, T. & **Wilson, JR.** [2019] Surgical treatment of Endometriosis: Excision versus ablation of peritoneal disease, ***The Journal of Minimally Invasive Gynecology***,  Jan;26(1):1-2.
19. Irimata$‡$, KM & **Wilson JR** [2018] Identifying intraclass correlations necessitating hierarchical modeling, ***Journal of Applied Statistics***, 45:4, 626-641
20. Wang$‡$ B., & **Wilson J.R**. [2018] Comparative GMM and GQL logistic regression models on hierarchical data ***Journal of Applied Statistics***, 45 (3), pp. 409-425.
21. Fang. D., Renyuan, & **Wilson JR**. [*2018*] Joint modeling of correlated binary outcomes: The case of spillover effect with contraceptive use and HIV knowledge in Bangladesh. ***PLOS One****:* 13(1): e0190917.
22. Irimata, K. M and **Wilson JR** Paper 2661-2018 Using SAS® to Estimate Lagged Coefficients with the %partitionedGMM Macro,
23. Przybylowski, C., Baranoski, J., So, V, **Wilson, JR.** Sanai, N. [2019] Surgical morbidity of transsylvian versus transcortical approaches to insular gliomas. ***Journal of Neurosurgery***, Apr 5;1-8. doi: 10.3171/2018.12.JNS183075
24. Crum, J; **Wilson, JR**; Sabbagh, MN “Does taking statins affect the pathological burden in autopsy confirmed Alzheimer's dementia? ***Alzheimer's Research & Therapy*** (2018) 10:104
25. Irimata$‡$ K, Dugger B &**Wilson, JR [**2018] "Impact of the Presence of Select Cardiovascular Risk Factors on Cognitive Changes among Dementia Subtypes" ***Journal Current Alzheimer Research***15:11,1032-1044
26. Hamed M, Schraml F, **Wilson JR**, Galvin J, Sabbagh MN. [2018] Occipital and Cingulate Hypometabolism are Significantly Under-Reported on 18-Fluorodeoxyglucose Positron Emission Tomography Scans of Patients with Lewy Body Dementia. ***Neurology*** Apr 2018, 90 (15 Supplement) P3.175;
27. Yong Shen Haibo Wang; Qiying Sun; Hailan Yao; Andrew Keegan; Mike Mullan; **Wilson, J. R.,** Simone Lista; Thomas Leyhe; Christoph Laske; Dan Rujescu8; Allan Levey; Anders Wallin; Rena Li; Harald Hampel: [2018] Increased Plasma BACE1 Predicts Conversion to Alzheimer's Disease Dementia in Individuals with Mild Cognitive Impairment: ***Journal: Biological Psychiatry***[Vol 83, Issue 5](https://www.sciencedirect.com/science/journal/00063223/83/5), 1, pp 447-455
28. Xu, D., Awad, W., Mehalechko, C., **Wilson, J. R.,** Ashby, L., Coons, S. [2018] An extent-of-resection threshold for seizure freedom in patients with low-grade gliomas. ***Journal of Neurosurgery***128 (4), 1084-1090
29. Arreola$‡$-Vazquez, E and **Wilson, JR** (2017) Tempe, Arizona Analyzing multiple membership hierarchical data using PROC GLIMMIX https://www.lexjansen.com/wuss/2017/100
30. Pu$†$, J. Fang D & **Wilson J.R.** [2017] Impact of communities, health, and emotional-related factors on smoking use: comparison of joint modeling of mean, dispersion, and Bayes hierarchical models on ADD Health Survey. ***BMC Medical Research Methodology***17: 20
31. Chen, D., Fang. D., & **Wilson JR**. (2017) META-Analysis of two studies with random effects? ***Journal Minimally Invasive Gynecology*** *v*ol 24, 5, pp 689–690
32. Fang**,** D. & **Wilson J. R.** [2017]. Does your model really provide answers for your research questions? *A perspective.* ***Journal Minimally Invasive Gynecology***24, 3, 333-34
33. Decourt, B., Drumm-Gurnee, D., **Wilson J. R**, Jacobson, S., Belden, C., Sirrel, S., Ahmadi, M., Shill, H., Powell, J., Walker, A., Gonzales, A., Macias, M. & Sabbagh, M. N. Apr 1 [2017] [Poor safety and tolerability hamper reaching a potentially therapeutic dose in the use of thalidomide for Alzheimer’s disease: Results from a double-blind, placebo-controlled trial](https://asu.pure.elsevier.com/en/publications/poor-safety-and-tolerability-hamper-reaching-a-potentially-therap)In : [***Current Alzheimer Research***.](https://asu.pure.elsevier.com/en/persons/jeffrey-wilson) 14, 4, p. 403-411 9 p.
34. Filon, J. Anthony J. Intorcia, A., Lucia S, Arreola$‡$-Vazquez, E, **Wilson, J. R.** et al. [2017] Gender Differences in Alzheimer's Disease: Brain Atrophy, Histopathology Burden and Cognition" ***Journal of Neuropathology and Experimental Neurology*** 75(8), 748-754
35. Irimata-Cai$‡$, K & **Wilson J. R.** [2016]. SAS® Macro for Generalized Method of Moments Estimation for Longitudinal Data with Time-Dependent Covariate**s *SUGI Paper*** 10260
36. Wichmann, B., Carter, C., Kaufmann, L & **Wilson J. R.**  [2016] Making Environmental SCM Initiatives Work – Moving Beyond the Dyad to Gain Affective Commitment ***Journal of Supply Chain Management*,** Volume 52, No.1 21-35
37. Dugger BN, Malek-Ahmadi M, Monsell SE, Kukull WA, Woodruff B, Reiman EM, Beach TG, **Wilson J. R**. Cross-sectional analysis of late life cardiovascular factors and their relation to clinically defined neurodegenerative diseases. ***Alzheimer Dis Assoc Disord***. 2016 Jul-Sep; 30 [3]:223-9.
38. Cai$‡$, K & **Wilson J. R.**  [2015]. How to Use SAS® for GMM Logistic Regression Models for Longitudinal Data with Time-Dependent Covariates **SUGI Paper** 3252
39. Fang, D. Chong J. & **Wilson J. R.** [2015]. Comparative Predicted Probabilities based on Retrospective Data with Binary Links ***American Journal of Public Health*** 105:5;837-39
40. Reece$†$, E., Bonelli$†$, M. Livingston$†$, T. Mulligan$†$, P. Rockwood$†$, J. **Wilson, J. R.** et al. [2015]. Factors in Fasciocutaneous Flap Complications: A Logistic Regression Analysis ***Journal of Plastic and Reconstructive*** *Surgery* 136[1]:54-58
41. Andrus JK. Benjamin GC. **Wilson J. R.**  Expanding Access to Spanish-Speaking Communities: A Critical Partnership. ***American Journal of Public Health***April 2014 Vol. 104, No. S2: S198–S199
42. LaLonde$‡$, T. **Wilson, J. R.** & Yin$†$ J., [2014] GMM Logistic Regression Models for longitudinal data with Time-Dependent Covariates and Extended Classifications ***Statistics in Medicine***Vol. 33, No 27.
43. **Wilson J. R.**  Statistics at the forefront of Public Health Analysis and Reporting. ***American Journal of Public Health***: Sep 2014, Vol. 104, No. 9: 1575–1575
44. Snyder, LA; Wolf, AB; Oppenlander, ME; Bina, R; **Wilson, J. R.**  et al. [2014]. The impact of extent of resection on malignant transformation of pure oligodendrogliomas: Clinical article. ***Journal of Neurosurgery***120:2: 309-314
45. Dugger, BN; Malek-Ahmadi, M; Monsell, SE; Kukull, W; Woodruff, B; Reiman, EM; **Wilson, JR.** [2014] Alzheimer's and Dementia: ***Journal of the Alzheimer's Association***: vol.10:4:151-2
46. Snyder, LA; Wolf, AB; Oppenlander, ME; Bina, R; **Wilson, J. R.;** Ashby, L; Brachman, D; Coons, SW; Spetzler, RF; Sanai, N; 文献抄録 ***No Shinkei Geka***vol 42: 3: 28: 2014
47. Falcone, T. & **Wilson, J. R.**  Surgical Management of Endometriosis: Excision or Ablation ***Journal of Minimally Invasive Gynecology***: [Nov–Dec 2014](http://www.jmig.org/issue/S1553-4650%2814%29X0006-3) Vol 21, Issue 6, Page 969
48. Wechter M. E., Mohd J. Magrina J. F. Cornella J. L., Magtibay P. M., **Wilson J. R.** & Kho R. M. [2014]. Complications in robotic gynecology according to case type. A six-year retrospective cohort study using Clavien-Dindo classification ***The Journal of Minimally Invasive*** Sep–Oct, 2014 Volume 21, Issue 5, Pages 844–850
49. Oppenlander, ME. Wolfe AB. Snyder LA, Bina R. **Wilson J. R.**  et al. [2014]. An extent of resection threshold for recurrent glioblastoma and its risk for neurological morbidity. ***Journal of Neurosurgery***Vol. 120 No. 4 Pages 846-853
50. Roher A. E., Maarouf C. L., Malek-Ahmadi M., **Wilson J. R.** et al. [2013]. Subjects Harboring Presenilin Familial Alzheimer’s Disease Mutations Exhibit Diverse White Matter Biochemistry Alterations. ***The American Journal of Neurodegenerative Bioc****hemistry* Am J Neurodegener Dis 2[3]:187-207
51. Quiroz$‡$, J. **Wilson J. R.** Roychoudhury, S. [2012] Statistical analysis of data from dilution assays with censored correlated counts ***Pharmaceutical Stats***11[1]:63-73
52. Lalonde$‡$ T, Nguyen$†$, AQ, Yin$†$, J., Irimata$△$, K. & **Wilson J. R.** [2013].Modeling Correlated Binary Outcomes with time-dependent Covariates ***Journal of Data Science***:11[4] 715-738
53. Troxler$△$, S. Lalonde$‡$, TL. & **Wilson J. R.** [2011]. Exact Logistic Models for Nested Binary Data; ***Statistics in Medicine****:* vol 30, no. 8.
54. Northridge, ME. **Wilson J. R.** Selzer, B. & Vaughan, RD., [2011] It’s About Time: Team-based editing at the AJPH. ***American Journal of Public Health*** 101: 2009-2012
55. Larkey, LK, **Wilson J. R.** Sillanpaa, B., Spencer, G. Garcia, F., Ellert, B., Lundy, M., Lopez, AM. [2009]. Effect of Risk Discussion Source and Perceptions of Provider Communication Style on Patient Compliance with CRC Screening in Primary Care Clinics. ***Annals of Behavioral Science in Medical Education***,15[2]:30-36.
56. Roher, AE, Maarouf, CL; Sue, LI; Hu, Yiran; **Wilson, J. R.**; Beach, T. G. [2009]. Proteomics-Derived Cerebrospinal Fluid Markers of Autopsy-Confirmed Alzheimer’s Disease. [***Biomarkers***. November; 14[7]: 493–501.](http://www.ncbi.nlm.nih.gov/entrez/eutils/elink.fcgi?dbfrom=pubmed&retmode=ref&cmd=prlinks&id=19863188)
57. Goslar, P. W., Crawford, N. R., Petersen, S. R., **Wilson J. R.,** Harrington, T. [2008]. Helmet Use and Associated Spinal Fractures in Motorcycle Crash Victims *J Trauma*. 64[1]:190-6;
58. Beach, TG., **Wilson J. R.**, Sue, L et al. [2007]. Circle of Willis Atherosclerosis: Association with Alzheimer’s disease, Vascular Dementia, Senile Plaques and Neurofibrillary Tangles: ***Acta Neuropathologica***vol. 113 13-21
59. **Wilson, J. R.** & Chen, SC. [[2007]] Dirichlet-multinomial model with varying response rates over time. ***Journal of Data Science*** 5, 413-423
60. Beach, T; **Wilson, J. R.,** Sue, LI; Newell, A; Poston, M; Pandya, Y; Cisneros, R; Connor, Dd; Sabbagh, M; Walker, D; Circle of Willis atherosclerosis: Association with Alzheimer's disease, senile plaques and neurofibrillary tangle: ***Brain Pathology*** [2006] 16: 78
61. Roher, AE, Garami, Z., Alexandrov, A., Kokjohn, T., **Wilson J. R.** et al. Interaction of Cardiovascular Disease and Neurodegeneration:Transcranial Doppler ultrasonography and Alzheimer’s disease ***Neurological Research***, 2006, Vol 28, 9: 672-678
62. Larkey, LK. Colditz, G., **Wilson J. R.** et al. Test of Low Literacy Video Guide for the Harvard Cancer Risk Index-G [HCRI-G]. ***Journal of Biocommunication*** 31:2 [2005]
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64. Webb$†$, M., **Wilson**, **J. R.** & Chong, J. An analysis of quasi-complete Binary Data with Logistic Models: Applications to Alcohol Abuse Data. ***Journal of Data Science*** 2 [2004]: 273-285
65. Richards, WM. & **Wilson**. **J. R.** [2003] A Rainy Day in Trinidad-Statistical Modeling ***STAT****.* ***American Statistical Association***38: 10-13.
66. **Wilson, J. R.** Review of Logistic Regression. ***Journal of Applied Statistics*** 28 [2002]: 782-783.
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68. Bolstad-Johnson$†$, DM. Burgess, **Wilson J. R.** et al. Characterization of Firefighter Exposures During Fire Overhaul [aldehydes/benzene/toluene]. ***Journal of the Science of Occupational and Environmental Health and Safety***, ***Association Journal*** 61:5 [2000]: 636-641.
69. Pearson, JN., White$‡$, RE. & **Wilson, J.R.**JIT Manufacturing: A survey of implement in Small and Large U.S. Manufacturers. ***Management Science*** 45:1 [1999]: 1-15.
70. Chong, JC. Dye, M. Herman-Stahl, & **Wilson, J. R.** State Demand and Need Assessment Studies, Alcohol and Other Drugs. ***ADHS Journal Report*** 1997 CSAT 270-97-7008
71. Walters, JP., & **Wilson, J. R.** Intraspecific Habitat Segregation …Bass in the Buffalo River, Arkansas ***Trans. of the American Fisheries Society*** 125 [1996]:284-290.
72. Yanez$‡$, ND. & **Wilson, J. R.** Comparative quasi-likelihood Models for Overdispersion ***Australian Journal of Statistics***37:2 [1995]: 217-231.
73. Clarkson, RW., & **Wilson, J. R.** Trout Biomass and Stream White Mountain Area, East Central Arizona. ***Trans. of the American Fisheries Society*** 124 [1995]: 599-612.
74. **Wilson, J. R.** & Reiser, M. Transforming Hypotheses for Test of Homogeneity with Survey Data. ***Journal of Official Statistics*** 9:4 [1993]: 815-823.
75. Sterling-Scott, RP., Kelter, A. **Wilson, J. R.**  et. al. Firearm Injuries in Females: The Unaddressed Imperative. ***Archives Surgery*** 128 [1993]: 663-668.
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77. **Wilson, J. R.** & Warde, WA. An Adjusted Test for Cross-classification Cluster Sample Data. ***Communications in Statistics*** A20:9 [1991]: 3029-3050.
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79. **Wilson J. R.** & Koehler, KJ. Hierarchical Models for Cross-classified Overdispersed Multinomial Data. ***Journal of Business and Economic Statistics*** 9:1 [1991]: 103-110.
80. **Wilson, J. R.,** & D. Turner. A Multinomial Model for Cross-classified Data with Measure of Dependency. ***Journal of Applied Statistics*** 17 [1991]: 115-124.
81. Deberg, CL. & **Wilson, J.R.** An Empirical Investigation of the Potential Biases in Student Evaluation of Teaching. ***Journal of Accounting Education*** 8 [1990]: 37-62.
82. **Wilson, J. R.** Chi-square Tests for Overdispersion with multiparameter estimates. ***Journal of Royal Statistics Society Series C, Applied Statistics*** 38:3 [1989]: 441-454.
83. Wilson, P. M. & **Wilson. J. R.** [1989] Factors contributing to research productivity. Home ***Economics Research Journal*** 18:2: 148-155.
84. **Wilson, J. R.** [1986] Approximate Distribution and Test of Fit for the Clustering Effect in the Dirichlet Multinomial Model. ***Communications in Statistics*** A15:4: 1235-1249.
85. Koehler, KJ., & **Wilson, J. R.** [1986] Chi-square tests for comparing vectors of proportions for several cluster samples. ***Communications in Statistics*** A15:10: 2977-2990.

## **Papers in Stages to Publication**

## **Papers: Submitted**

1. Vazquez Arreola, E ; Zheng, Y; **Wilson, J. R** Modeling simultaneous responses with nested working correlation and Bayes estimates for data and time-dependent covariates"

**Work in Progress**

1. Vasquez$‡$. EM., & **Wilson J. R.** Modeling higher moments through orthogonal polynomial: An alternative approach to interpret regression models
2. Irimata, KM, Vazquez, EV, and **Wilson J.R.** Simultaneous GMM Models with time-dependent covariates

**Textbooks and Chapters in Textbooks**

**Textbooks**

1. **Wilson J.R** Vazquez, EV, and Chen, D.G. Marginal Models in Analysis of Correlated Binary data with time-dependent covariates *Springer* **Nov 2020**
2. Irimata$‡$, K, Dugger, B. & **Wilson, J. R.** Fundamental Statistical Method for Analysis of Alzheimer’s and other neurodegenerative diseases *John Hopkins Publishing* **May 2020**
3. **Wilson J. R.**, & Lorenz, K Modeling Correlated Binary Responses: A handbook for Practitioners using SAS SPSS and R. - *Springer* **Dec 2015**
4. Chen, D.G. & **Wilson, J. R.** Novel Statistical Methods for Public Health Research. *ICSA Book series in statistics. Springer:* New York **Sep** **2015**

**Chapters in textbooks**

1. Wilson, J.R., **Vazquez Arreola, E.** GMM marginal models with time-dependent

*Covariates Springer* [Book Chapter] **July 2020**

1. Irimata$‡$ K & **Wilson J. R.** Monte-Carlo Simulation-Based Statistical Modeling: Monte Carlo Simulation in Modeling for HLM. *Springer* [Book Chapter] **Mar 2017**

## **Papers in Proceedings**

1. Irimata, K.M., **Wilson, J.R**. GMM Logistic Regression with Time-Dependent Covariates and Feedback Processes in SAS, Proceedings of the SAS Global Forum 2017 Conference. Cary, NC: SAS Institute Inc.
2. Irimata, K.M., **Wilson, J.R.** Exact Logistic Models for Nested Binary Data in SAS, Proceedings of the SAS Global Forum 2016 Conference. Cary, NC: SAS Institute Inc.
3. Turner, DL. & **Wilson, J. R.** Monitoring Cross Country Skiers:Proceedings of the Section on *Statistics and the Environment. ASA* 8 [1994]
4. **Wilson, J. R.** Logarithmic Series Distribution and its Use in Discrete Data: Proceedings of *Survey Research Methods, ASA* 8 [1988].
5. **Wilson J. R.** A Generalized Dirichlet-multinomial Model for Categorical Data with Extravariation: Proceedings of *Survey Research Methods, ASA* 8 [1987]
6. **Wilson, J. R.** A Simulated Comparison of Chi‑squared Tests for Comparing Vectors of Proportions for Several Cluster Samples: *Survey Research Methods, ASA 8* [1986].
7. **Wilson J. R.** & Warde, W. The Analysis of Frequency Data Based on an Alternative Form of Constructing a Contingency Table: *Survey Research Methods, ASA* 8 [1985].
8. **Wilson J. R.** Approximate Test Statistics for the Test of Independence for Small Samples from a Cluster Sampling Scheme: *Survey Research Methods, ASA* 8 [1985].
9. **Wilson J. R.** & Koehler. KJ. Testing Equality of Vectors of Proportions for Cluster Samples: Proceedings of *Survey Research Methods, ASA* 8 [1984].
10. **Wilson, J. R.** Comparing proportions for several populations when primary units are repeatedly sampled: 50th Anniversary of the *Statistical Laboratory*, Iowa, 6 [1983].

## **Technical Reports**

1. Yanez$‡$, N.D., & **Wilson, JR.** A Generalized Quasi-likelihood Function for Overdispersion: *Technical Report DIS 92/93-4*. Arizona State University
2. Clarkson, RW, & **Wilson, JR.** Evaluation of the U.S. Forest Service Fish Habitat Relationship System in East-central Arizona Trout Streams: *Arizona Game and Fish Department, Research Branch,* *Technical Report No. 8*.
3. **Wilson, JR.** A Comparison of Chi-square Statistics for Testing Homogeneity with Survey Data: High School and Beyond: *Technical Report DIS 88/89-8*. Arizona State University.
4. **Wilson, JR.** Hierarchical Models for Cross-classified Data with Extravariation: *Technical Report DIS 88/89-7*. Arizona State University
5. **Wilson, JR.** Chi-square Tests for Overdispersion with Multi‑parameter Estimates: *Technical Report DIS 87/88‑7*, Arizona State University.
6. **Wilson, JR.** Tests of Independence: Approximate Statistics and Comparisons in a Stratified Cluster Sampling Scheme. *Technical Report DIS 85/86‑1*, Arizona State U.
7. **Wilson, JR.** Chi-square Tests for Comparing Vectors of Proportions for Several Cluster Samples: *Technical Report DIS 85/86‑9*, Arizona State University.
8. **Wilson, JR.** Approximate Distribution and Test for the Cluster Effect in the Dirichlet-Multinomial Model: *Technical Report DIS 84/85‑14*, Arizona State University.

## **Invited Presentations**

1. ASU Undergraduate family weekend at W.P. Carey School of Business **Nov 2020**
2. Black Professional Panel: WPC Carey Fulltime MBA **Sep 2020**
3. Keynote Address: What are we investigating? Why?” Phoenix Symposium on Data Analytics in Healthcare Banner Alzheimer’s Institute & Banner University Medical Center **Apr 2019**
4. GMM Logistic Regression Models for longitudinal data. Department of Mathematics and Statistics **University of Arkansas,** Fayetteville, Arkansas **Oct 2018**
5. Joint modeling of mean, variance, skewness and kurtosis in Breast Cancer Data. Department of Statistics **University of Pretoria**, South Africa **Aug 2018**
6. Modeling correlated binary data with time dependent covariates with GMM estimates. **University of Pennsylvania** Perelman School of Medicine Philadelphia **Oct 2015**
7. What You Need to Do to Get a MIGS Paper Published: **43rd AAGL Global**

**Congress on Minimally Invasive Gynecology Vancouver, British Columbia Nov 2014**

1. **Joint Statistical Meetings** Diversity Mentoring Program ASA Boston **Aug 2014**
2. Survival Models in Pediatrics Research **Phoenix Children Hospital** **Mar 2014**
3. Common Statistical Errors Department of Obstetrics and Gynecology

**Mayo Clinic** Phoenix, Arizona **Nov 2013**

1. JSM Diversity Mentoring Program **JSM** Meetings Montreal Canada **Jun 2013**
2. Stat101 Understanding Results12thConference **IPro Innovations** Scottsdale **Apr 2013**
3. JSM Diversity Workshop & Mentoring Program **JSM** San Diego **Jul 2012**
4. Classifying time-dependent covariates Medicare data: **APHA** Washington DC **Nov 2011**
5. Cavelle Brownie Scholars Mentoring Program **JSM** Miami Beach **Aug 2010**
6. Career in Statistics: A Changing Environment **Statfest** Spellman Atlanta **Sep 2010**
7. Pre-JSM Diversity Workshop: **ASA** Washington, DC **Aug 2009**
8. Defending your country through education: **Statfest**: UW Seattle, **May 2007**
9. Statistics for surgeons: Overview of statistical tools in healthcare research: **The American Society of Breast Surgeons** 8th Annual Meetings Phoenix **May 2007**
10. Statistical methods in the analysis of Alzheimer to the research committee for Alzheimer in the State of Arizona, **Mayo Clinic,** Scottsdale, Arizona **May 2007**
11. Bridging Disciplines: The Key to Biomedical Research and Economic

Development in 21st Century: **ADRC and The Flinn Foundation***,* Tucson **Nov 2001**

1. Tools for Better Outcomes **Arizona Department of Health Services**, Division of Behavioral Health Services Stakeholder Workshop Tempe **Nov 2000**
2. Selecting the correct statistical tests: **Medicis,** Phoenix **Nov 1999**
3. Applications of the quasilikelihood model:**Iowa State University***,* Ames **Nov 1999**
4. Statistical Issues in Medical Research: **Sun Health Research** Sun City **Feb 1998**
5. The Role of the Statistician in Research and Proposal: **ADRC** Phoenix **Oct 1997**
6. Disability Estimation in America: **ADES** Phoenix **May 1997**
7. Retention and Graduation Among Students: **Arizona State University Jun 1994**
8. Statistics and Minority Students in the Classroom: **ASU** Tempe **Jun 1993**
9. Analysis of overdispersed data: Quasi-likelihood Approach **U of Florida May 1993**
10. Biomedical Research in Acupuncture: **American Academy of Medical Acupuncture Conference***,* Tempe, AZ **May 1992**
11. Statistical methods in medical journals: **Charles Drew Univ** Los Angeles **Feb 1993**
12. Statistical issues in medical research: **Charles Drew Univ**, Los Angeles **May 1992**

## **Contributed Presentations**

1. Wang, B., and **Wilson, J.R**. Bootstrap Hierarchical Logistic Regression Models **Joint Statistical Meetings** Baltimore, Maryland **Aug 2017**
2. Fang, D, Rhodes, R., and **Wilson JR**.  "GMM Logistic Regression Model for Obesity with Time-Dependent Covariates" *APHA Annual Meeting & Expo*, Denver **Nov 2016**
3. Wang, B**.,** and Wilson, J.R. Comparative GMM and GQL Bootstrap Methods for Hierarchical Data **Joint Statistical Meetings** Chicago **Aug 2016**
4. Cai$‡$, K and **Wilson JR** Joint Modeling for Logistic Regression Models

with GMM estimators *Joint Statistical Meetings* Chicago **Aug 2016**

1. Irimata$‡$, KM**.** and **Wilson JR** “Multiple Intraclass Correlations for Higher Level Nested Logistic Regression”. *Joint Statistical Meetings*, Chicago **Aug 2016**
2. Cai$‡$, K. and **Wilson, JR** SAS Macro Generalized Method of Moments for Longitudinal Data with Time-Dependent Covariates *SAS Global Forum*. Las Vegas **Apr 2016**
3. Irimata$‡$, K. and **Wilson JR** “Exact Logistic Models for Nested Binary Data in SAS®”.

*SAS Global Forum*, Las Vegas **Apr 2016**

1. GMM logistic regression model for Obesity with time-dependent covariates. Rhodes, R.

Fang, D. & **Wilson J. R.** Add Health Users Conference NIH Bethesda **Jun 2016**

1. GMM versus GQL: logistic regression models for multi- level correlated data: Wang$‡$ B. and **Wilson J. R.**  **Joint Statistical Meetings** Seattle, **Aug 2015**
2. Sources of Correlation on a hierarchical logistic regression model: Irimata K, Cai, K. and **Wilson J. R.**  **Joint Statistical Meetings** Boston **Aug 2014**
3. Impact of multiple sources of correlation: hierarchical logistic regression models: Cai$‡$, K.

Irimata$‡$ K, and **Wilson J. R. Joint Statistical Meetings** Boston, **Aug 2014**

1. Comparative predictive probabilities based on retrospective data with binary links: Fang D. and **Wilson J. R.**  Boston **Aug 2014**
2. Comparative modeling of correlated data with time-dependent covariates: **Wilson, J. R. -** **Joint Statistical Meetings** San Diego **Jul 2012**
3. Correlated logistic regression with generalized method of moments: Lalonde$‡$, TL **Wilson, JR. -** **Joint Statistical Meetings** San Diego **Jul 2012**
4. Classifying time-dependent covariates in modeling correlated data: **Wilson, JR.** and Nguyen, A. **Joint Statistical Meetings** Miami **Aug 2011**
5. Exact logistic regression for clustered data with varying intra-cluster dispersion: Lalonde, T. and **Wilson, JR. Joint Statistical Meetings** Miami **Aug 2011**
6. Generalized method of moments approach to time-dependent covariates: Lalonde$‡$, T. **Wilson, JR.** **Joint Statistical Meetings** Vancouver **Aug 2010**
7. Modeling overdispersion in multilevel using random effects: **Wilson, J. R.**  Special Topics: **Joint Statistical Meetings** Denver **Aug 2008**
8. Multilevel overdispersion in hierarchical generalized linear models: LaLonde$‡$, T ,

and Wilson JR. Biometrics Section, **Joint Statistical Meetings** Denver **Aug 2008**

1. Overdispersion in multilevel correlated data: LaLonde$‡$, T. and **Wilson, J. R.**

Biometrics Section, **Joint Statistical Meetings** Salt Lake City **Jul 2007**

1. Censored Poisson Regression with Normal Random Effects with an application

Dilution Assay: **Wilson, J. R.** and Quiroz, J. **APHA**, Boston **Nov 2006**

1. Censored Poisson Regression with Normal Random Effects with application to a Dilution Assay: Quiroz, J **Wilson, J. R.** **Joint Statistical Meetings**, Seattle **Aug 2006**
2. Dirichlet-Multinomial Logistic Regression Model: Physician Assistant Autonomy: Wilson J. R., Zhang$‡$ B Schneller, E **Joint Statistical Meetings** Toronto **Aug 2004**
3. Modeling Overdispersed Survival Data: **Wilson, J. R. Joint Statistical Meetings**, San Francisco **Aug 2003**
4. Comparisons of binary logistic regression models with quasi-complete data **Wilson, J. R.**, Webb, M. Williams, D. **Joint Statistical Meetings**, New York **Aug 2002**
5. Reducing the Burden of Diabetes-Applications of an Overdispersed Logistic Model: **Wilson, JR.**, Simpson, L. **Joint Statistical Meetings** Indianapolis **Aug 2000**
6. Comparative Predictive Probabilities for Retrospective & Prospective Data in Binary Models **Wilson, JR.**  Richards, W. **Joint Statistical Meet.** Indianapolis **Aug 2000**
7. Adding Diabetes Screening to Breast and Cervical Cancer: **Wilson, J. R.** Simpson, L and Judie, B. **CDC Conference**, New Orleans **Apr 2000**
8. Multiple Capture-recapture Comparisons, Applications to AZ Hospital Discharge: **Wilson, JR.** **Joint Statistical Meetings**, Baltimore **Aug 1999**
9. Applications of generalized quasi-likelihood Function: **Wilson, JR**, Khanna$‡$, S. and Wooten, L. **Joint Statistical Meetings**, Anaheim **Aug 1997**
10. Joint Modeling of Mean and Variance Using a quasi-likelihood Function: **Wilson, JR.** Khanna$‡$, S. **Joint Statistical Meetings**, Chicago **Aug 1996**
11. Cardiovascular Reactivity in Surgery Residents: Prevention ’95 Seminar Research Linkages **Public Health Practice**: **Wilson, J. R.** New Orleans **Apr 1995**
12. Comparing Estimates in Retrospective and Prospective Data in Binary Models: **Wilson, JR.** and Xiaxaoun, Z. **Joint Statistical Meetings**, Orlando **Aug 1995**
13. Alternative Method for Estimation of Nonlinear Parameters in Generalized Quasi likelihood Models: **Wilson, JR.** **Joint Statistical Meetings** Orlando **Aug 1995**
14. Monitoring Cross Country Skiers: **Wilson, JR.**, and Turner, D. **Joint Statistical Meetings**, Toronto Canada **Aug 1994**
15. Generalizing Joint Modeling of Mean and Dispersion Model: **Wilson, JR.** Ali$‡$, J. & Khanna$‡$, S. **Joint Statistical Meetings**, Toronto, Canada **Aug 1994**
16. Generalized Distribution Free Models for Overdispersion: **Wilson, JR.**  Yanez$‡$, D. et al

**Joint Statistical Meetings**, San Francisco **Aug 1993**

1. Efficiency of Transformations versus Extended Quasi-likelihood: **Wilson, J. R.** and Yanez$‡$, D. **Joint Statistical Meetings**, Boston **Aug 1992**
2. Classification Tables for Binary Models: **Wilson, J. R.** and Yanez, D. Section on Log Linear Models- **Joint Statistical Meetings**, Atlanta, **Aug 1991**
3. Extravariation Models for Cross-classified Data. Survey Research Section- **Wilson, J. R.** **Joint Statistical Meetings**, Atlanta **Aug 1991**
4. Logistic Models for Longitudinal Data: Applications to High School and Beyond: **Wilson, J. R.** **Joint Statistical Meetings**, Anaheim **Aug 1990**
5. Identifying Hypotheses When Test Statistics are used on Survey Data: **Wilson, J. R.** **Joint Statistical Meetings**; Washington, DC. **Aug 1989**
6. Hierarchical Models for Cross-classified Data with Extravariation: **Wilson, J. R.**, **Joint Statistical Meetings**, San Diego **Jan 1989**
7. Fit of Logistic Regression and Related Models to Migration Data: **Wilson, J. R.**, **Joint Statistical Meetings**, San Diego **Jan 1989**
8. Logarithmic Series Distribution and Its Use in Discrete Data: **Wilson, J. R.** **Joint Statistical Meetings**, New Orleans **Aug 1988**
9. Generalized Dirichlet-multinomial Model for Data with Extravariation: **Wilson, J. R.** **Joint Statistical Meetings**, San Francisco **Aug 1987**
10. A Simulated comparison of chi square Test Statistics for Testing Proportions: **Wilson, J. R.** **Joint Statistical Meetings**, Chicago **Aug 1986**
11. Alternative Form of Constructing a Contingency Table for Frequency Data: **Wilson, J. R.** **Joint Statistical Meetings**, Las Vegas **Aug 1985**
12. Approximate Test Statistics for Independence for Cluster Sampling Scheme: **Wilson, J. R.**, **Joint Statistical Meetings**, Las Vegas **Aug 1985**
13. Testing Equality of Vectors of Proportions for Several Cluster Samples: **Wilson, J. R.** **Joint Statistical Meetings,** Philadelphia **Aug 1984**
14. Comparing proportions for several populations when primary units are repeatedly sampled: 50th Anniversary: **Wilson, J. R.** Iowa State University Ames **Jun 1983**

## **Workshops and Short Courses Presented**

1. Partitioned GMM logistic Regression Models for longitudinal Data **University of Pretoria** South Africa **Jul-Aug 2018**
2. On several topics in statistics for fellows to aid in the use of their funded and published research. **Phoenix Children Hospital** Phoenix **Sep** **2013-16**
3. Can Statistics Lie? **Association for Career Technical Education** Tucson **Jul 2015**
4. On “what you need to do to get a paper published” and the use of statistics **43rd AAGL Global Congress** Vancouver Canada **Nov 2014**
5. On Minority Statistics for mentoring of students and early career members **ASA-Committee on Diversity** Miami, San Diego, Montreal, Boston **Aug 2010-14**
6. On use of statistical models [ one-day workshop] for High School teachers and students in prep for **Intel Science and Engineering Fair**: ASA & ASU **Jan** **2013-15**
7. On use of SAS while analyzing research data from ongoing research problems- Twelve-week course in Biostatistics **Mayo Clinic,** Scottsdale **Mar –Jul 2012**
8. On use of statistical models for High School teachers and students in prep for **Intel Science and Engineering Fair**: ASA & ASU **Dec** **2009-10**
9. On statistical tools used in analysis of research in breast cancer. **The American Society of Breast Surgeons Jun 2007**
10. On using SPSS Procedures to analyze data set pertaining to Arizona Health Data
11. Three-day workshop for **Arizona Department Health Services** **Oct 2003**
12. On biostatistics using SAS while analyzing current research data from ongoing research problems- Ten-week course **Mayo Clinic,** Scottsdale **Mar-May 2003**
13. SAS Procedures to analyze Health Data [3-day] **ADHS** Phoenix **Jul 2002**
14. Statistical Tools SPSS in Health Data to [3-day] **ADHS** Phoenix **Dec 2001**
15. On tools for better Outcomes-Behavioral Health Services**, ADHS Nov 2000**
16. On techniques for analyzing small samples, **MEDICIS**, Phoenix, Arizona **Sep 1999**
17. On advanced topics in Biostatistics, **SDAR**, Phoenix, AZ **May 1999**
18. On sample size and power analysis to Healthcare workers **SDAR** Phoenix M**ay 1998**
19. On outcome research workshop, **SDAR,** Phoenix, **Apr 1998**
20. On logistic regression analysis with SPSS- **SDAR,** Phoenix **Feb 1998**
21. Statistical Methods in the Analyses of Health Data **SDAR** Las Vegas, NV **Nov 1997**
22. On proposal writing: Role of the statistician in the Proposal Process- **Arizona Disease Research Commission** Phoenix **Oct 1997**
23. Statistical Methods in the Analyses of Health Data: **SDAR** Salt Lake **Oct 1997**
24. Analyzing, disseminating and collecting minority health data, **Arizona Department of Health Services, CMH**Phoenix **Oct 1997**
25. Statistical Methods & Tools in the Analyses of Health Data **SDAR** Reno, **Sep 1997**
26. Statistical methods in the Analyses of Health Data **SDAR** Denver **Aug 1997**
27. On the ABC’s of statistics in Law, Learning the fundamentals: 4.62/5-point **Maricopa County Bar Association,** Phoenix **Jun 1997**
28. On fundamentals of statistical analysis in health data: **SDAR Feb 1997**
29. Statistical methods for survival data analysis: **SDAR,** Phoenix **May 1994**
30. Statistical methods marketing research **American Express**Glendale **Oct 1993**
31. Survival models in analyzing biomedical data:3rd Annual Stat Week **ASU Mar 1993**
32. Series of seminars on statistical methods in medical investigations

**Maricopa Medical Center Department of Anaestheology,** Phoenix, **Oct-Dec 1992**

1. On fitting binary models 2nd Annual Statistics Week- **ASU Mar 1992**
2. On log linear and logistic models in wildlife data **Arizona Game & Fish Department** Phoenix  **Dec1990**

## **Research Grants**

**Grants from Institutions other than Arizona State University**

1. **Co-PI** R33 CA217702-01A1 Biospecimen Science Program PI Chad Borges **July 2018----**
2. **Co-PI** Grant Number: 1R01AG059008 - 01 PI: Sabbagh, Marwan **July 2018----**
3. **Co-PI** NIH **Alzheimer's Center**: Biostatistics Core **Jul 2006-16**
4. **PI** Evaluating Preassembly of Roof Structural Components: **NIOSH Dec 2002-04**
5. **Co-PI** National Pediatric Height & Weight Study **ITCA** AZ **Jul** **2002-03**
6. **Co-PI** Agency for Health Care Research and Quality: **NIH Jul 2003-05**
7. **Co-PI** Impact of Risk Talks on Patient Screening: **NIH Jul 2003-05**
8. **Consultant** Biomarkers oxidative stress Look AHEAD **NIH Jul 2001-05**
9. **PI** Extra variation models for cross-classified data: DMS9306979 **NSF Jul1993-95**
10. **PI** Quasi-likelihood techniques in the analysis of wilderness monitoring 92-94 count data. **USDA Forest Service Intermountain Research Jul 1992-94**
11. **Co-PI** Stress among surgery residents: Charles Drew Medical School **National Institute of Health Jul 1992-96**
12. **Consultant** Longitudinal Study PAs Union College NY **NIH Jul 1990-91**
13. **Consultant** TOPPS2: **ADHS &** **Center Disease Control Jul 1999-01**
14. **Consultant** TOPPS1AZ Dep’t Health Services and **CDC Jul 1999-00**
15. **Consultant** Acupuncture smoking cessation-RCT **ADRC Jul 1999-01**
16. **Consultant** Acupuncture smoking cessation-RCT **ADRC Jul 1996-98**
17. **Co-PI** Measurement of Respiratory Resistance **ADRC**, Phoenix, AZ **Jul 1996-97**
18. **Consultant** Updating the Diabetes and Associated Complications:**ADHS 2001-02**
19. **Consultant** Integrative Study AZ NAS Gap Analysis-Subs Abuse **ADHS 1998-01**
20. ***Consultant*** Adding diabetes screening to breast & cervical cancer:**ADHS 2000-01**
21. **Consultant** Evaluation Faith Project Planning and Process: **ADHS** **1997-98**
22. **Consultant** Arizona Child and Adolescent Data Book Community: **ADHS 1997-97**
23. **Consultant** Healthy Arizona: Who Needs Treatment **ADHS 1996-97**
24. **PI** Asthma Surveillance Analysis: **ADHS**, Phoenix, Arizona **1999-00**
25. **Consultant** National Pediatric Height & Weight Study: **ITCA** AZ **2002-04**
26. **PI** WIC PC Survey using SAS Analysis: **Inter Tribal Council** Arizona **2001-01**
27. **PI** Telephone Aftercare: Rural Health **University of Arizona 2000-01**
28. **PI** Cholesterol Epidemiological study: **Sun Health Research Institute****1998-98**
29. **Consultant** Telephone Aftercare Project-**University of Arizona 1998-00**
30. **Consultant** Survival Analysis for diabetic patient **VA** Phoenix Arizona. **1998-99**
31. **Consultant** Outreach program: **Phoenix Children's Hospital** Arizona **1998-99**
32. **PI** Evaluation of the U.S. Forest Service Fish Habitat Relationship System in East-Central AZ Trout Streams*,* **Arizona Game and Fish Department 1991-93**

**Grants from Units at Arizona State University Tempe Arizona**

1. Joint modeling of mean, variance, skewness and kurtosis in Breast Cancer Data

**W. P. Carey Dean’s Excellence in Research Summer Grant Jun 2018**

1. Partitioned GMM Logistic regression with time-dependent covariates

**W. P. Carey Dean’s Excellence in Research Summer Grant Jun 2017**

1. Predictive modeling of semester performance multiple Membership and Bayesian estimates **W. P. Carey Dean’s Excellence in Research Summer Grant Jun 2016**
2. GMM logistic regression on correlated data

**W. P. Carey Dean’s Excellence in Research Summer Grant Jun-2014**

1. Modeling extravariation in Minority Population. **COB Grant** **Dec-1994**
2. Extravariation models cross-classified data: A**rts Sciences Grant Jan-1992**
3. Classification tables for binary models: **Research Incentive Grant** **Dec-1990**
4. Extravariation models for cross-classified data: **COB Small Grant**  **Nov-1989**
5. Identifying hypotheses in overdispersion: **COB Research Grant**  **Nov 1989**
6. Logistic regression models for longitudinal data: **COB Research Grant Jun 1989**
7. Logistic regression models to overdispersed data: **COB Research Grant Dec1988**
8. Logistic regression models to overdispersed data: **Faculty grant-in-aid** **Dec1988**
9. Identifying hypotheses statistics with survey data **COB** **Small Grants**  **May-1988**
10. Overview of logistic regression models: **Faculty Grant -in-Aid**  **Dec1987**
11. Simulation study: Test statistics for complex sampling data: **Council 100 Aug1987**
12. Hierarchical models for cross-classified overdispersed data: **Council 100**  **Dec1986**
13. Chi-square tests for independence in the presence of overdispersion, **RIA Aug-1986**
14. Chi-square tests in survey data: **DIS Department Research Award** **Mar-1986**

## **Teaching**

**Summary of Courses Taught: Arizona State University**

**Graduate Courses**

1. **Categorical Data Analysis –**Logistic Regression; generalized linear Models; time dependent covariates; generalized linear mixed models; Bayes categorical models

**ECN527**: F19 F18 F17 F16 F15 F14 F13 F12 F11 F10 F09 F08 F07; QBA527 F87 F88 F89 F90 S92 S94 S95; F96 F97 F98 F99 F00 F01 F02 F03 F04 F05 F06; QBA591F86 F85

1. **Applied Regression Analysis**

**ECN525**: F19 F18 F17 F16 F15 F14 F13 F12 F11 F10 F09 F08 F07; QBA525: F06 F02 F01 F00 F99 F98 F97 F96 F95 F94 F93 F90 S90 S89 S88 S87 SS88

1. **Executive MBA Statistics –** Statistics for decision making with reporting; **ECN501** Tri2 08; Tri2 09; Tri2 10; Tri2 11; Tri2 12; Tri2 13; Tri2 14;
2. **Advanced Biostatistics HSA**598 S03, S04 S05 S06
3. **Clinical trials and survival analysis;** QBA590 S99
4. **Managerial Statistics for MBA; ECN502** F08\* 502 F95 F96 F98 F99 F00 F01
5. **Biostatistics [Started this course] HSA561** SS03 F92 F93 F94 F95 F06
6. **Statistical Analysis of Epi. Data QBA 591** F93 94 [as **HSA 522**] F95
7. **Generalized Linear Models QBA** 791 S91 S98
8. **Survey Sampling Theory** *[Started this course]* QBA 511 S91 S86 [as QBA 591]
9. **Experimental Design QBA** 530 S00 S99 S98 S95 S94 S90
10. **Probability Models QBA** 560 F89
11. **Managerial Statistics QBA** 501 S89 S88 S87 S86 S85 SSII 85;
12. **Fundamental Business Statistics QBA** 500 SS88;
13. **Statistical Methods for Agribusiness AGB**598 S95

**Undergraduate Courses at Arizona State University**

1. **Honors Statistics ECN**231: F18 F17 F16 F15 F14 S14 S13 S12 S11 **2011-19**
2. **Business Statistics QBA**221 ECN221 F16 F09 SS02 SS01S99 SS98 SS97 SS96 SS93 SS92 S92 F91 **1993-2016**
3. **Sampling Techniques in Business QBA**405 F88, F87, F86 **1986-88**

**Summary of Courses Taught at other institutions**

**University of Pretoria South Africa**

1. Survival Data Analysis [**Graduate**]  **Jul-Aug 2018**

**Mayo Clinic Phoenix Arizona**

1. Biostatistics Methods [*organized a special course for Mayo]*  **Mar – Jun 2012**
2. Biostatistics [*organized a special course for Mayo]*  **Feb – Apr 2004**

**University of Colorado Denver Colorado**

1. Statistics and Epidemiology[**Graduate**] XHAD 6140; SS93, SS92, SS91, SS90 **1990-93**

**University of Arizona Tucson Arizona**

1. Principles of Biostatistics [**Graduate**] F98, F97, F96, F95, S94, F94 **1994-2002**

**Oklahoma State University Stillwater Oklahoma**

1. Analysis of Categorical Data [**Graduate**] **1983-84**
2. Statistics for Experimenters I and II [**Undergraduate**] **1983-84**
3. Intermediate Business Statistics [**Undergraduate**] **1983‑84**

**Iowa State University Ames Iowa**

1. Business Calculus I and II; Business Statistics [**Undergraduate**] **1982-83**
2. Algebra, Trigonometry, and Matrices [**Undergraduate**] **1980-83**
3. Statistics for the Biological Sciences [**Undergraduate**] **1982**

**Undergraduate Barrett Honor Theses - Arizona State University**

**[Director]**

1. Nicole Falls Impact of the pigmentation of the skin and COPD on melanoma cancer **May 2021**
2. Joshua Blinkoff & Michael Voeller Predictive Modeling of 4th Down Selection in Power 5 Conferences: Football Data Analytics [*published* **May 2019**
3. Thomas J. The Value Added of the ASU Spirit Squad to Sun Devil Athletics **May 2017**
4. Nebeker G. Marketing in the Third wave of Democratization **Dec 2015**
5. Molinaro E. Predictive analytics in Hotel Reservations **May 2015**
6. Irimata K. Comparing binary models with time-dependent covariates [*published*] **May 2012**
7. Troxler S. Computing exact conditional distributions for clustered data [*published*] **May 2009**

**[Second Reader]**

1. Adusei, E., Consalvo, J., Sundar, M., Saunders, W., and Wilson, Z., A Study of Sun Devil

Athletics’ Men’s Basketball with information related to Travel Partnership **May 2020**

1. Slama-Baker G. Foot strike and injury rates in endurance runners: a retrospective study revisited **May 2014**

**Masters Theses- Arizona State University**

**MS. Statistics – Theses [Chair]**

1. Yin, J. [2012] Correlated GMM Logistic Regression Models with Time-Dependent Covariates and Valid Estimating Equations {Published in *Statistics in Medicine}*

**MS. Statistics – Theses [member]**

1. Ping-Chieh Huang [2020] Comparison of denominator degrees of freedom approximation for linear mixed models in small-sample simulations

**MS. Statistics - Arizona State University**

**MS. Statistics Applied Project [Chair]**

|  |  |
| --- | --- |
| 1. Richard Cox **Spring 2020**
 | 24. Yang Xue **Summer 2011** |
| 1. Ziwei Chen **Spring 2020**
 | 25. Anh Nguyen **Summer 2010** |
| 1. Ting Yun Wu **Spring 2020**
 | 26. Nan Yao **Summer 2010** |
| 1. Chengyu Hong **Spring 2020**
 | 27. Yinan Liu **Summer 2010** |
| 1. Dan Xue **Spring 2019**
 | 28. Yiran Hu **Fall 2008** |
| 1. Anqi Liu **Spring 2018**
 | 1. Sherri Kou **Spring 2007**
 |
| 1. Ying Wang **Spring 2018**
 | 1. Jue Chai. **Fall 2005**
 |
| 1. Ming Liu **Fall 2016**
 | 1. Bahou Zhang **Summer 2004**
 |
| 1. Rachael Rhodes **Spring 2016**
 | 1. Hu, X. **Summer 2003**
 |
| 1. Jie Pu **Spring 2016**
 | 1. Mandy Webb **Summer 2002**
 |
| 1. Elsa V. Arreola **Spring 2016**
 | 1. Xiaoun H. **Fall 2001**
 |
| 1. Ally Daubenspeck **Spring 2016**
 | 1. Hussen D. **Fall 2001**
 |
| 1. Renyuan Sun **Spring 2016**
 | 1. Bob Sookvong **Fall 1999**
 |
| 1. Stacy Williams **Spring 2015**
 | 1. Shinobu Kotake **Spring 1999**
 |
| 1. Chad Melachelco **Spring 2015**
 | 1. Chen X. **Spring 1999**
 |
| 1. Kyle Irimata **Summer 2014**
 | 1. Eric Gileland **Spring 1998**
 |
| 1. Sujatha Rajagopal **Fall 2014**
 | 1. Cara Troye **Summer 1997**
 |
| 1. Anh Dang **Summer 2014**
 | 1. Yuan Y. **Spring 1997**
 |
| 1. Tanisa Tawichsi **Spring 2014**
 | 1. Laura Wooten **Fall 1997**
 |
| 1. Reem Al Ghamdi **Spring 2013**
 | 1. Zolie Njovane **Summer 1996**
 |
| 1. Hong Xiang **Spring 2012**
 | 1. Stephanie Beeken **Summer 1995**
 |
| 1. Waldvogel, Ashley **Fall 2011**
 | 1. Psei-HuanJ **Fall 1994**
 |
| 1. Fen Wu **Fall 2011**
 | 1. Sanjay Kumar.**Fall 1994**
 |

**MS. Statistics Applied Project [Committee Member]**

|  |  |
| --- | --- |
| 1. Gevork Harootunian **Spring 2020**
 | 1. Weinkai **Spring 2008**
 |
| 1. Lilan Chen **Spring 2020**
 | 1. Yoonjoo K, **Summer 2008**
 |
| 1. Xitao Xie **Fall 2017**
 | 1. Keindl, M **Spring 2002**
 |
| 1. Shichao Liu **Spring 2015**
 | 1. Agnew, B. **Spring 1999**
 |
| 1. Xiao Wang **Spring 2015**
 | 1. Russell Del Grosso **Spring 1998**
 |
| 1. Yun Ouyang **Spring 2013**
 | 1. Liao, X., **Summer 1997**
 |
| 1. Henrichsen A **Summer 2012**
 | 1. Stout K. **Fall 1997**
 |
| 1. Pappu S **Summer 2011**
 | 1. Ramsay McBay **Fall 1996**
 |
| 1. Yuan S **Summer 2011**
 | 1. Gregg Rodd **Summer 1996**
 |
| 1. Yan Qiao **Fall 2009**
 | 1. Natalie Rivera **Fall 1997**
 |
| 1. Russell S. **Summer 2009**
 | 1. Geoff Monsees, **Summer 1993**
 |
| 1. Rivera, AL **Summer 2009**
 | 1. Rhys Williams, **Fall 1993**
 |

**MBA/MS. Economics Applied Project [Committee Member]**

|  |  |
| --- | --- |
| 1. Bubnick, Z **Fall 2011**
 | 1. Goldman A.R. **Fall 2000**
 |
| 1. Wells, D **Fall 2001**
 |  |

**MQS Applied Papers [Chair]**

|  |  |
| --- | --- |
| 1. Oliver C. Rud **Fall 1991**
 | 1. Huang, C. **Spring 1989**
 |
| 1. Jumaah Ali **Spring1990**
 | 1. Teresa McElroy **Fall 1988**
 |
| 1. Stephanie Ferguson **Fall 1989**
 | 1. Ross Johnson **Fall 1987**
 |
| 1. David Yanez **Summer 1989**
 |  |

**Doctoral Dissertation [Chair] – Arizona State University**

**Department of Mathematics and Statistics**

1. Elsa Arreola-Vazquez, **May 2020**

working atNational Institutes of Health

1. Kyle Irimata, *Intraclass Correlation in hierarchical models* **May 2018**

Working at US Census Bureau

1. Katherine Irimata, *Random Effects in multilevel modeling* **May 2018**

working at Centers of Disease Control, MD

1. Bei Wang, *GQL, PQL and Bootstrapping* **Dec 2017**

working at AMGEN

1. Trent LaLonde, *Components of overdispersion in HGLM*  **May 2009**

Working at Professor at University Northern Colorado

**Department of Decision and Information Systems**

1. Sarita Khanna, RE asymptotic properties of quasilikelihood estimators **May1996**
2. Jumaah Ali, J. Generalized joint modeling of mean and dispersion**May 1994**

Working as Professor at King Saud University

1. Norbert David Yanez, Overdispersion in generalized linear models **May 1993**

 Working as Professor at University of Washington

**Doctoral Dissertation [Committee Member]**

**Arizona State University**

**School of Engineering**

1. Rousseau J. [2019]. Differences and Similarities of Stress Related Experiences Among Intercollegiate Division I Head Basketball Coaches Based on Gender, Race and Intersectionality

**Department of Public Policy**

1. Wang D. [2018]. Exploring Revenue Collections during Exceptional Times: State Governments in the United States 1977-2016

**Department of Mathematics and Statistics**

1. Dassanayake M. D. [2018]. A Study of Components of Pearson's Chi-Square Based on Marginal Distributions of Cross-Classified Tables for Binary Variables
2. Zhang, J. [2013]. A Continuous Latent Factor Model for Non-ignorable Missing Data in Longitudinal Studies
3. Milovanovic J. [2012] Chi-Square Orthogonal Components for Assessing Goodness-of-fit of Multidimensional Multinomial Data
4. Karl A. [2011] A Correlated Random Effects Model for Nonignorable Missing Data in Value-Added Assessment of Teacher Effects
5. Broatch, J [2010] Multivariate models for assessing educational effectiveness with continuous and categorical responses

**Morrison School of Agribusiness**

1. Wang, C.S. [2015] Heard it through the grapevine: traceability, Intelligence, cohort and collaboration with hazard intelligence

**Department of Economics**

1. Quiroz J. [1999] Test and confidence intervals for ratios in bioequivalence
2. Warsi G. [1998] Topics in Mediation and Confounding
3. Alatorre, C. [1996] Comparison of goodness-of-fit tests for large sparse multinomial

**Department of Business Administration**

1. Stanley, L. [1994] An empirical study: the link between buyer-supplier relationship
2. Peng, L. [1994] Logistics barriers to international shopper: People's Rep. of China
3. Semeijn, J. [1994] Logistic services: A carrier-shipper comparison of one-stop shop
4. Gentry, J.J. [1994] The Role of carriers in buyer-supplier strategic partnerships

**Department of Finance**

1. Ng, C.K. [1993] Use of underwriter warrants in seasoned equity: Optimal contract

Department of Purchasing, Transportation and Operations

1. Fawcett, S. [1990] Logistics issues in global manufacturing strategy
2. White, D. [1990] Post-Implementation evaluation of just-in-time manufacturing

**Department of Decision and Information Systems**

1. Pannivrselvann T. [1995] Statistical validation- Malcolm Baldrige national quality
2. Parks, D. [1992Confidence intervals in the regression model with nested error
3. Sandman, T. [1990] Induction support sys: Transferring machine learning tech.
4. Birch, N. [1988] Confidence interval on ratios of variance components

**Doctoral Dissertation [Committee Member]**

**Oklahoma State University**

**Department of Purchasing and Merchandising**

1. Ann Fairhurst [1985] Consumer involvement related to patronage
2. Sutton, A. [1984] Obtaining a time series model for small business

**Ph.D. Examination Committee Member - Arizona State University**

|  |  |
| --- | --- |
| 1. Jorge Quiroz **1997**
 | 1. Sean Robbins **1997**
 |

## **Statistical Consulting**

1. Maricopa County lawyers on racial differences in penalties 2020
2. FTC Commission versus Tate Auto Sales Gust Rosenfeld- Craig McCarthy **2020**
3. Ventura v. Pulte Stacy Fallon Koeller Nebeker Carlson Haluck **2020**
4. Regalia Condominium Ryan Charlson Cole Scott & Kissane **2020**
5. Wickham Koeller Nebeker Carlson Haluck [Ryan Brooks] **2020**
6. Deerfoot Koeller Nebeker Carlson Haluck [Justin Leese] **2019**
7. Verano at Bertram **2019**
8. Kachnik v. Centex Homes Las Vegas **2019**
9. Fountain Parke Koeller Nebeker Carlson Haluck Stacy Fallon **2019**
10. Carrington **2019**
11. Latitude Miami Taylor Scheiner Cole Scott & Kissane **2019**
12. 5600 Street San Francisco **2018**
13. Bayside v. Bosa **2018**
14. Bonini et al v Taylor Morrison **2018**
15. Greenbrier Orlando Florida **2018**
16. Texas Shutters – Texas : Irvine CA Koeller Nebeker Carlson Haluck **2018**
17. Lake Reams Orlando Florida **2018**
18. Power Analysis **MagQu** LLC **2018**
19. Marbella Park Association Orlando Florida **2018**
20. Jackson Park Townhomes Orlando Florida **2018**
21. Phillips et al v. Del Webb Koeller Nebeker Carlson Haluck **2017**
22. Village at Somersett v. Somerset Development Las Vegas Nevada **2017**
23. Irvine v. Pinnacle Walnut Creek CA **2017**
24. Fender v. Beazer Las Vegas **2017**
25. Eagar v. TM Homes [Lakeview Trails] **2016**
26. Crutcher v. Beazer Las Vegas NV **2016**
27. Promenades v. Pulte Home Corp Orlando Florida **2016**
28. View at Black Mountain v American Black Mountain Las Vegas **2016**
29. Atkins et al. vs. Del Webb Las Vegas NV **2016**
30. Legend v. Bosa San Diego California **2016**
31. Heron Landings Orlando Florida **2016**
32. Homelife Communities of AZ Atreus v. Alexander Phoenix AZ **2016**
33. Report in Sky Las Vegas Hightail **2015**
34. Report in Sky Las Vegas **2015**
35. Simkins et al. [Washoe Conty] Las Vegas **2015**
36. View at Black Mountain Las Vegas **2015**
37. Robinson v. GE Money Bank KNCH law firm Phoenix **2015**
38. Sky Las Vegas Bremer Whyte Brown & O’Meara Las Vegas NV **2015**
39. Beazer matter: Sierra Montana KNCH law firm Phoenix **2015**
40. One Queensridge Place v. Perini Building Bremer Whyte Brown O’Meara LLP **2015**
41. Boca Raton Bremer Whyte Brown and O’Meara, LLP Las Vegas  **2015**
42. Park West HOA of Myrtle Beach, Inc South Carolina **2014**
43. Grand Canyon[GC] v GC Condo Lewis Brisbois Bisgaard and Smith CA **2014**
44. Rose Lakes Centex Homes KNCH law firm Las Vegas **2014**
45. Albores Centex Homes KNCH law firm Las Vegas **2014**
46. View at Black Mountain v American Black Mountain KNCH Las Vegas **2014**
47. Ash v Del Webb KNCH law firm Phoenix Arizona **2013**
48. Sampling Methodology **Blue Cross Blue Shield of Arizona** Phoenix **2013**
49. Coronado HOA v. Highland KNCH law firm Las Vegas **2013**
50. Grande North v. Bosa Development San Diego CA **2013**
51. Levinson v Del Webb Koeller Nebeker Carlson Haluck **2013**
52. Sun City City Grand Zelkind v Del Webb Koeller Nebeker Carlson et al **2013**
53. Arvie v. Beazer **2013**
54. City Center at Las Vegas **2012**
55. Discovery at Cortez **2012**
56. Park Place v. Bosa Loeber Greenfield andPolito **2012**
57. Richard v Del Webb Koeller Nebeker Carlson Haluck **2012**
58. Alfaro v. Harood Brothers **2011**
59. Fisher v. Del Webb/Kelly Peterson Koeller Nebeker Carlson Haluck **2011**
60. v. Tobler and Perata/Scott Rhodes Jennings and Strouss **2010**
61. Estimating Pop. Totals in Chlorine Spill Koeller Nebeker Carlson Haluck **2010**
62. Data analysis **St. Joseph Hospital and Medical Center** Phoenix **2009-10**
63. Moonlight Terrace v Sunrise Mountain Brown **2009**
64. Alba v. Harrod Brothers Koeller Nebeker Carlson Haluck **2009**
65. Chateau Versailles v. Chateau Alexander Helm and Associates **2009**
66. Sun City Grand v. Del Webb/Allen Koeller Nebeker Carlson Haluck **2009**
67. Beazer Homes adv. Mason, et al Koeller Nebeker Carlson Haluck **2009**
68. Edge at Reno/Kevin Helm of Helm and Associates **2009**
69. Grand Canyon Railway Hotel v. Straightline Buliders/Christopher Ippoliti Wood Smith Henning and Berman LP **2009**
70. Guadiana v. State Farm/Robert Sullivan Broeing Oberg Woods Wilson **2009**
71. Ventana Vista/Sean Breacliffe Rusing and Lopez **2009**
72. Park Avenue v. Amland Development Koeller Nebeker Carlson Haluck **2008**
73. Ensley v. Forecast cv20007-023466 Koeller Nebeker Carlson Haluck **2008**
74. Beazer Homes v. Chaignot/J. Downs Koeller Nebeker Carlson Haluck **2008**
75. South Park v. Pulte Homes/J Salem Koeller Nebeker Carlson Haluck **2008**
76. Marlyn Nutraceuticals Inc v Mucos Phoenix AZ **2008**
77. Anderson v Forecast Resid cv2007-007222 Wood/Smith/Henning **2008**
78. Mountain Vista Villas HOA v. Spectre West Builders Corporation/Scott McClure Lewis Brisbois Bisgaard Smith **2008**
79. Data analysis St. Joseph Hospital and Medical Center Phoenix **2007-2008**
80. Specht v. Forecast Residential Wood Smith Henning Berman **2008**
81. Amukamara et all. V. Forecast Resid. Koeller Nebeker Carlson Haluck **2007**
82. Crowe et. Al v. Aspen Creek Meadows Doyle Berman Gallenstein **2007**
83. Capital Mews Apt v. Legacy Partners/ Welch Doyle Berman and Murdy **2007**
84. Dessent v. Del Webb Koeller Nebeker Carlson Haluck **2007**
85. Chateau Properties v. Chateau Noveau Helm and Associates **2007**
86. Hayward v. Del Webb Koeller Nebeker Carlson Haluck **2007**
87. Alvarez et al. v. HC Builders, cv2004-016321 Koeller Nebeker et al **2006**
88. Sampling Room Selection Quality evaluation **Best Western** Scottsdale **2005-06**
89. Hospitals v. Maricopa County 1997-021512 Dacey Gammage et al **2005**
90. Evaluating Performance Survey [Harbster] **Microchip Inc** Chandler **2005**
91. Olivenol data unblinding statistical analyses **Creagri Inc**. San Francisco **2004-05**
92. Safeco v. DHR/Paul McGoldrick Shorall McGoldrick Birkmann **2004**
93. Mirage Pk Resort v. Mirage Homes Edwards Doyle Berman Gallenstein **2004**
94. Carlisle V. Pardee/Megan Dorsey Koeller Nebeker Carlson Haluck **2004**
95. Stone Ridge v. Pulte Homes/Strassburg Doyle Berman Gallenstein **2004**
96. Duran v. Roston/Stephen Yost Lorber Greenfield and Polito **2004**
97. Mitchell v. Este Homebuilding CV2002-4101 Lorber Greenfield and Polito **2004**
98. Vista Fairways at Westbrook Village v. Shea Homes CV2003-001296 MARIC/Lee Blake Lorber Greenfield and Polito **2004**
99. Providence v. Bradshaw Cottonwood Koeller Nebeker Carlson Haluck **2004**
100. Roesch v Brown 00001.0064.02/Eliz Zanon Lorber Greenfield and Polito **2004**
101. Clinefelter v. Jackson Properties/C Geary Koeller Nebeker Carlson **2004**
102. Vistoso Resort Casitas v. Mirage Homes-Brei Chandler and Udall **2004**
103. Logistic modeling for client satisfaction **Advanced PCS 2004**
104. Hosp v. Maricopa County CV1998-001664 Dacey Gammage Burnham **2004**
105. Serena Shores v. Summit Builders Doyle Berman Gallenstein **2003**
106. Young v. Elliott 001.231Downs-- Koeller Nebeker Carlson Haluck **2003**
107. Fulton Homes v. Keeton/Judith Downs Koeller Nebeker Carlson Haluck **2003**
108. Anthem Homes C. Murdy and V. Edwards Doyle Berman and Boyack **2003**
109. Condo Assoc. v. Villas at Bellagio C. Murdy Doyle Berman and Boyack **2003**
110. Curtice v. Perkins #cv 99-19942 H Synder **2003**
111. Cornelius et. al. v. Golden Heritage Homes, Inc. #cv2001-0550 [G. Cahill]Lober Greenfield et. Al **2003**
112. Golden Heritage v. Cornelius/Grey Cahill Lorber Greenfield and Polito **2003**
113. Harrah's Shreveport/Roger Strassburg Doyle Berman Gallenstein **2003**
114. Anthem Homes CV2001-015323/Strassburg Doyle Berman Gallenstein **2003**
115. Pippin v. Del Webb/Craig Murdy Doyle Berman Gallenstein **2003**
116. Satisfaction Survey of Primary Care Practitioners: **PacifiCare of Arizona 2002**
117. Wilson et. al. v. Fulton Homes Koeller Nebeker Carlson Haluck **2002**
118. Elliot Homes of AZ, v. Young et. al Koeller Nebeker Carlson Haluck **2002**
119. Price Hoffman et al and Assoc v. Per-seTech. AAA#33180017601[Keenan Folger Levin and Kahn San Francisco **2002**
120. InData Corp.v. Verdict Systems, Inc., *P.C*. CV1999-93390 Plaintiff
121. Barnes and Lassiter **2001**
122. Understanding Services Offered Survey of member –**PacifiCare-**S Ptacek **2001**
123. Regression Drivers in Retail Pharmacy Conundrum **PMBI** -Mike Deskin  **2001**
124. Effects Nitroglycerin Adenosine on gradient: **Arizona Heart Institute** Dib **2001**
125. Dartmouth Trace HO v US Home Corp Mohr Hackett, Pederson, et al **2001**
126. Jones v. Del Webb-CV200-9323/021799 Strassburg-Doyle and Winthrop **2001**
127. James v Salas [Plaintiff] CV 2000-090417 Chapman- Roberts and Rowley **2001**
128. Towne Development [Turk] CV 98-01585 Jennings and Strouss **2001**
129. Sampling Issues in People v. Pediatrix Medical Group *AZ* [Plaintiff] AG 198-1053

 T.Eisnerand P.Svoboda Arizona Attorney General Office **2000**

1. Racial Profiling [James and S. Sterman] **Coconino County Attorney** **2000**
2. Las Vegas Club v Tiberti Construction C. Murdy at **Doyle and Winthrop** **2000**
3. Sojaee v. Meyers/ cv98-13840 **Petersen and Johnson** **1999**
4. Provide statistical support to management through SAS programming and power analyses: **Hi-Tech International,** Washington D.C. **1999-01**
5. Sample size and power analyses and statistical tests: **MEDICIS 1999-01**
6. Employee satisfaction survey data: **Healthcare Delivery Systems 1999**
7. Provide statistical support to the **HSMLimited** Scottsdale, Arizona **1999-02**
8. Crandall v.UHaul Inc.cvBC178775**Birnbaum Mariscal, Weeks, McIntyre**  **1999**
9. Analysis of layoff disparity by age Janensch Ellis and Baker **1999**
10. Critique of analysis Plaintiff #cv98-13840AZ **Petersen and Johnson** **1999**
11. Ranking - Moore and Scanza **AAA Dispute American Arbitration Assoc**. **1999**
12. Quality Assurance and sample size determination **Best Western** Phoenix **1999**
13. Opinion Survey Wait times at Vehicle Emission **AZ Dept of Env. Quality 1999**
14. Survey of AZ motor vehicles for wait times response **1999**
15. Survey of FHP physicians **FHP 1998**
16. Profile of customers at pool hall **1998**
17. Statistical Anal -#cv96-18674 cv97-06776 **Preston/Broening Oberg** **1998**
18. Age discrimination case [Brad Denton] Bryan Cave LLP **1998**
19. Law School Admission Council, Inc. v. LSAT [**Larry Haddy**] 14E199 00240-98T/J **1998**
20. Sampling Western Family v. CBIA [Plaint] **McCarthy- Gust and Rosenfeld** 1**998**
21. Analysis of age, race, and sex in layoffs Colter @**Snell and Wilmer** **1998**
22. Survey Methodology in pool hall customers/Thomas **Thomas and Elardo** **1998**
23. Evaluating Performance in Taylor v. Picker Int. Plaintiff #cv97-11434 R. Cook **1998**
24. Stratified sampling survey of FHP physicians: **PacifiCare of Arizona 1998**
25. Analysis of Diabetic Patients and amputation: **Maricopa Medical Center 1998**
26. Power analysis Development care monitoring. **Phoenix Children’s Hospital 1998**
27. Power analysis for limiting dilution assays for determination cell frequency **1998**
28. Predicting CABG outcome Cardio Surgery **Scottsdale Memorial Hospital 1997-8**
29. Stratified sampling survey of FHP physicians: **PacifiCare of Arizona 1997**
30. Sampling Issues Schrader v State Farm Lungaretti O’Connor Cavanagh **1997**
31. Survey of FHP physicians **FHP 1997**
32. Analysis of Guiding Values Survey: **Microchip Inc** Chandler AZ **1997-98**
33. Logistic regression model evaluation performance - **CIGNA Inquiry Center 1996**
34. Sample size estimates selecting rooms in hotel industry **Best Western** AZ **1996**
35. Sampling/Cutter Aviation v City of Phx Keister @Golston Keister Steen **1996**
36. Clinical studies for serum measurement of Hyaluronic: **REAADS Medical 1996**
37. Dromos /Ergos TC Dual chamber cardiac pacemaker **Biotronik** Portland **1996**
38. Power analysis/ variance comparisons for drugs- **Biotronik,**Portland **1995**
39. Sampling plan for analysis of cardiovascular patients: **CVC,** Phoenix  **1995**
40. Cox's proportional hazard models: **Arizona Heart Institute** Phoenix  **1995**
41. Evaluation of obstetrical profile: **Northwest Hospital,** Tucson, Arizona **1995**
42. Corporate taxes sampling plan: **Arizona Department of Revenue** Tempe **1995**
43. Sampling plan for auditing files **Arizona Department of Revenue** Tempe **1994-95**
44. Evaluation of limousine RFP at Sky Harbor Jennings, Strouss Salmon **1994**
45. Occupational stress in residents: **Martin Luther King Hospital,**LA, CA **1993-94**
46. Statistical methods Data Analysis: Workshops: **American Express Phoenix 1993**
47. Using regression analysis housing evaluation: **Standard Chartered Banks 1992**
48. Sampling plan, and mortality study: QPC toxic fire South Phoenix: **CRSP 1992-93**
49. Analyzing repeated measures crossover design: **Thomas-Davis Center**, AZ **1993**
50. Analysis of PTCA data: **Desert Samaritan Medical Center***,* Mesa, AZ **1992-93**
51. Mortality rates: survival analysis models. Department of Anesthesiology [Dr. J. Calkins] **Maricopa Medical Center***,* Phoenix, Arizona **1991-92**
52. Mortality rates: claims and clinical data. Department of Anesthesiology [Dr. J. Calkins] **Maricopa Medical Center,**Phoenix, Arizona **1990-91**
53. Estimation in People v. Dole- [Plain] Ruhl Community. Legal Services 1**991**
54. Reviewing Data-Lewis and Roca **1991**
55. AZ Tax Appeal Court of Judges- AZ State tax assessment file #724-90-s #17046.01 AZ Tax Appeal Court of Judges Phoenix Arizona **1991**
56. Obtaining estimates determining quality room in hotel **Best Western 1991**
57. Odds ratio repeated data Market Research Bureau **WINONA MRB Inc 1991**
58. Attestation procedures **Gallant and Company, CPA**, Phoenix Arizona **1990**
59. Evaluation sampling procedure Market Research Bureau **WINONA MRB Inc 1990**
60. Estimation [Plain-Ruhl] cv91-1618-WPC Community Legal Services **1990**
61. Evaluation of Sampling Procedure used IRS IRS‑City of Nogales, Arizona **1988**
62. Pyramids at Palm Valley v Condo Assoc Turley, Swan and Childers, P.C.**1988**
63. Tapadero at DC Ranch v. Edmunds-Toll Scott Humble at **1988**
64. Golden Eagle Distributor Inc./Adverse Jerry Grimes- **1987**
65. AZ Civil rights #95-0482 Kirschner Raven and Kirschner, P.C.  **1987**
66. Einsley Trail/James Evans Wood Smith Henning Berman **1987**
67. Mortality rates for heart surgery: **Scottsdale Memorial Hospital,**AZ **1987**
68. Assessed price versus sales **Real Estate Evaluation Group**, Chandler Arizona
69. Analysis of Investor **Avanti Associates**, Phoenix, Arizona **1987**
70. Public opinion and productivity analysis for the **City of Eloy***,* Arizona **1987**

## **VII Institutional Service**

## **Committee Assignments --Arizona State University at Large**

1. **Member:** Misconduct Investigation Committee **2014-15**
2. **Member:** Misconduct Investigation Committee **2012-13**
3. **Chair:** Sun Devils Athletic Board **2004-14**
4. **Member**: Selection committee for outstanding MS Statistics student **2011-14**
5. **Member**: Personnel Committee African American Studies CLAS **2009-11**
6. **Member:** Steering Committee 3rd cycle **2008-09**
7. **Chair:** Gender diversity well-being subcommittee for Accreditation **2008-09**
8. **Member:** Student Athletic Code of Conduct Committee **2005-15**
9. **Member:** Search Committee, VP and AD for Athletics **2005**
10. **Chair**: Search Committee Women’s Division I Head Water Polo coach  **2005**
11. **Member:** IACT **2004-09**
12. **Member:** Bioinformatics Task force for start of School of Bioinformatics **2004-05**
13. **Member:** Scholarship and Awards Committee for Postgraduate awards **2004-11**
14. **Member:** Search Committee Women’s NCAA Division I Head Golf coach **2002**
15. **Member:** Search Committee Men NCAA Division Head Wrestling coach **2001**
16. **Member:** Search Committee Women’s NCAA Div. Head soccer coach **2000-01**
17. **Chair:** Intercollegiate Athletics Board, Budget subcommittee **2001-03**
18. **Member:** Intercollegiate. Athletics Board, Arbitration Baseball Committee **2003-03**
19. **Member:** Autism Research Committee **2003-05**
20. **Member:** ICA Board subcommittee: Scheduling and participation **2000-01**
21. **Member:** Faculty Academic Council ICA board **2000-04**
22. **Faculty Advisor**: Men and Women Intramural Soccer **1996-08**
23. **Representative:** Graduate College for dissertation defenses **1996-00**
24. **Member:** Self-study Committee program review Statistics Graduate College **1996**
25. **Member:** Search Committee Women’s NCAA I Div. Head soccer coach **1995**
26. **Member:** Graduate College, Faculty Mentoring Program **1990-93**
27. **Member:** Committee on Statistics  **1990-13**
28. **Member:** Committee, Assistant V President for Academic Personnel **1988**
29. **Member:** Graduate College Representative for dissertation defenses **1985-93**

**Committee Assignments within W. P. Carey School of Business**

1. **Chair** Justice Diversity Equity and Inclusion Committee **2020-present**
2. **Member** Post tenure evaluation committee **2020-present**
3. **Founder:** First Generation Underrepresented faculty mentoring program **2005-06**
4. **Member:** SHAP Search Committee Health Services Research **2001-02**
5. **Member:** SHAP Director Evaluation committee **1999-99**
6. **Member:** Personnel Advisory Committee **1994-99**
7. **Member:** Diversity Forum Ad Hoc Committee **1995-96**
8. **Chair**: Search Committee, MBA Program Advisor **1994-94**
9. **Member:** Standards Committee **1993-95**
10. **Member:** Diversity Forum Ad Hoc Committee **1992-93**
11. **Member:** Search Committee, Program Coordinator **1990-92**
12. **Member:** Search Committee, Director of Academic Access Programs **1991**
13. **Member:** Business Enrichment Academic Program **1990-91**
14. **Member:** Cultural Awareness Advisory Committee **1991-92**
15. **Member:** Transition Alliance Program Advisory Group Selection Committee **1991**
16. **Member:** Faculty Mentor Project Committee - Graduate Programs **1990-91**
17. **Member:** PepsiCo Scholarship Awards for Incoming MBA students **1989**
18. **Member:** Library Committee **1988**
19. **Member:** Affirmative Action Special Committee **1987**
20. **Member:** Accreditation Review Center for Health Services Administration **1986**
21. **Member:** Minority Council for Dean Search **1985-86**
22. **Member:** Affirmative Action Committee **1985-86**

**Committee Assignments Departments within W. P. Carey School of Business**

**School of Health and Administration and Policy**

1. **Chair** Search Committee for Sr. Program Counselor **2003**
2. **Chair** Search Committee for Health Care Finance Faculty **2003-04**

**Department of Economics**

1. **Member** Peer Evaluation of Teaching **2020-21**
2. **Member:** Executive Committee **1996-97**
3. **Member:** Graduate Committee **1996-97**

**Department of Decision and Information Systems**

1. **Member:** Certificate in quality Subcommittee **1993-94**
2. **Chair** Search Committee **1992-93**
3. Graduate Statistics **Advisor 1991-93**
4. QBA Certificate **Advisor 1990-93**
5. **Member:** Personnel Committee **1991-95**
6. **Member:** Personnel Committee **1987-88**
7. **Member:** Graduate Recruiting and Admissions Committee **1989-94**
8. **Chair** Faculty Search Committee **1989 & 1993**
9. U.S. Savings Bond **Member: 1986-89**
10. **Member:** DIS/PTO Merger Committee **1988**
11. United Way **Representative 1988-89**
12. **Member:** Faculty Recruiting Committee **1987-88**

**Committees Other than Arizona State University**

**Membership on Committees**

1. **Chair** Nominating Committee PAC-12 Conference **2019-21**
2. **Member NCAA** Sustainability working group **2020-21**
3. **Member** Leadership committee of APHS of APHA **2015- cont’d**
4. **Member** Impact Leadership Council PAC-12 **2020-21**
5. **Member** Nominating Committee PAC-12 Conference **2017-18**
6. **Member** Steering Committee for the FPRN and FMIG Collaboration **2015-18**
7. **Member** Council Executive Committee PAC-12 Conference **2017-18**
8. **Co-Chair** of International Intel Science and Engineering Judges  **2015-16**
9. **Past Chair**: Section on Statistics, American Public Health Association **2012-13**
10. **Chair** Section on Statistics, American Public Health Association **2011-12**
11. **Program Director**: Statistic Section National APHA 2011 meetings DC  **2010-11**
12. **Chair elect**: Section on Statistics, American Public Health Association **2010-11**
13. **Member:** American Statistical Association Nomination Committee COC **2010-12**
14. **Member:** American Statistical Association Minority Executive Committee **2009-14**
15. Arizona Chapter **Representative** American Statistical Association **2006-2017**
16. **Chair** of ASA Judges Intel Science and Education Fair Phoenix, Arizona **2005**
17. **Member** **- ASA** Judges Intel Science and Education Fair Portland Oregon **2004**
18. **Member** Committee of **American United Program Health Association**  **2003-06**
19. **Member** Statistics Section Council of **APHA** **2001-Present**
20. **President** of Arizona Chapter of **American Statistical Association** **2000-06**
21. **Member** Scientific Advisory Board: Women’s Prevention AZ Cancer Center **1998-99**
22. **Member** of NCMH **National Institutes of Health 1997-00**
23. National Advisory Committee non-conventional medicine: **NIH** **1992-94**
24. **Member** Advisory Council Minority Health, **ADHS 1996-99**

**Membership Organization**

1. American and Arizona Statistical Association [ASA] **1983-Present**
2. American and Arizona Public Health Association [APHA] **2001-Present**
3. Biometrics Society **1991-97**
4. Royal Statistical Society **1985-99**
5. WNAR **1990-98**
6. Biometrika **1990-96**

**Consulting Editor/ Editorial Board Membership**

1. **Editor** Johns Hopkins University Press **2016-2019**
2. **Chair** American Journal of Public Health [AJPH] **2012-15**
3. **Statistical Associate Editor** JMIG **2012-Present**
4. **Member** American Journal of Public Health [AJPH] **2009-15**
5. **Member** Journal of Health Education **2003-06**

**Abstract Reviewer for Conferences**

1. Reviewed abstracts for the **APHA**  Annual Meeting & Exposition **2017 &2019**
2. Reviewed abstracts **APHA 2011 &2012 &2013** Annual Meeting & Exposition **2011-13**

**Article Reviewer for Refereed Journals**

1. Computer Methods and Programs in Biomedicine **2021**
2. Viruses **2020**
3. Pharmaceutical Statistics **2019**
4. Journal of the Society for Social Work and Research **2018**
5. Cardiovascular Quality and Outcomes **2018**
6. Journal of Minimally Invasive Gynecology [JMIG] **2012-2018**
7. PLOS One **2017-2018-2019-2020**
8. BMC Public Health  **2017**
9. American Journal of Public Health [AJPH] **2009-16**
10. Journal of Applied Statistics **2014**
11. Statistics in Medicine **2010-15**
12. British Journal of Psychology **2004; 2011-12**
13. Health Education  **2004**
14. Journal of Biopharmaceutical **2003**
15. European Journal of Operational Research **2000**
16. Computational Statistics and Data Analysis **2000**
17. The Institute of Statistical Mathematics **1999**
18. International Journal of Production Economics **1999**
19. Psychological Methods **1999**
20. American Statistician **1997**
21. Computers in Biology and Medicine **1994**
22. Journal of Official Statistics **1993**
23. Journal of the American Statistical Association  **1991-92; 1995**
24. Journal of Financial Research **1991-92**
25. Journal of Royal Statistical Society, Applied Statistics **1989**
26. Communications in Statistics  **1991-92; 1994**
27. National Science Foundation [NSF] **1990**
28. Decision Sciences  **1990-94**
29. Journal of Statistical Computing and Simulation  **1988**

**Text Book Reviewer**

1. Computational and Methodological Statistics and Biostatistics-

Contemporary Essays in Advancements- Springer **2019**

1. Statistics in Health Administration, Using Excel **2002**
2. Josey – Bass Public Health and Health Administration **2002**
3. Logistic Regression- A Primer F. C. Pampel, 2000 Sage Publications, Inc. **2000**
4. Design and Analysis of Clinical Trials-Concept: Shein-Chung C. & Jen-pei Liu **1999**
5. Data Analysis for Busy Managers: Brightman **1999**

**Other Professional Services**

1. **Promotion Reviewer:** University of Pretoria South Africa **Mar 2019**
2. **Promotion Evaluator:** Professor Idaho State University Statistics **Nov 2017**
3. **Reviewer:** Abstract reviewer Section on – Applied Public Health Statistics

APHA 2017 Annual Meetings and Expo **Mar 2017**

1. **Organizer:** JSM 2017- Topic ContributedGMM, triple joint modeling, bootstrapping, and Multiple Membership of Correlated Data **Aug 2017**
2. **Member** –PAC-12 Executive Council Committee **Feb** **2017-Present**
3. **Moderator:** The NCAA’s investigation academic fraud involving UNC Lessons and perspectives: Center for Law and Society Phoenix AZ **Nov 2016**
4. **Promotion Evaluator:** Professor of Practice @ Cornell University **Feb 2016**
5. **Judge –** Challenge Cup- Caribbean CRN – Trinidad and Tobago **Jan 2016**
6. **Member** -FMIGS-SGS Steering Committee **2016-17**
7. **Member** Taskforce: National Statistical Institute Gov’t Trinidad & Tobago **2016-17**
8. **Chair** Judges in International INTEL Science and Engineering Fair, ASA **2015-16**
9. **Chair** Biometric Session on Longitudinal models, **ASA** Denver, CO **Aug 2008**
10. **Chair**, WNAR Biometrics Society Student Paper Competition **Jun** **1996**
11. **Organizer** Special session: GLM for overdispersed data, ASA, Toronto **Aug 1994**
12. **Chair**, Social Science Modeling of Categorical Data, ASA, San Diego, CA **Nov 1990**
13. Proposal **Reviewer** Sabbatical Leave, Department of Communications, ASU **1988**
14. **Member**, Committee SPES Presentation, ASA **1987**
15. **Organizer** and **Founder** the Statistical Hotline/ Annual Statistic Day **1991-1995**

## **VIII Honors and Awards**

## **National**

1. 2020 Achievement in Academia Award **APHA statistics** section **2020**
2. National Football Foundation Faculty Salutes **Hall of Fame** **2015**

## **Arizona State University**

1. Faculty Service Achievement Award **2021**
2. John W. Teets **Outstanding** Undergraduate Teaching Award finalist **2014**
3. Quality of Life **Award** OSA **1993**
4. **Outstanding** Professor Award, ASU Golden Key National Honor Society **1991**
5. MBA **faculty achievement award**, College of Business **1991**
6. **Faculty Research Development Award**, College of Business **1991**
7. **Outstanding** faculty research award, College of Business **1990-91**
8. Subject of a feature article in business magazine special edition, Vol. 1 [1] **1987**
9. Nominated: **Outstanding** **Faculty Research** Development Award, DIS, ASU **1986-87**
10. **Outstanding** **Graduate Faculty Teaching Award**, College of Business, ASU **1985-86**

## **Iowa State University**

1. George Washington Carver Achievement Award Iowa State Alum Association **1995**
2. Distinguished Outstanding Service Award **1983**
3. Certificate of Appreciation: Graduate Students **1982**
4. Certificate of Recognition - Student Affairs **1981**

## **Other Institutions**

1. Organization of American States **Scholarship** to Iowa State University **1978-83**
2. Final Year **Book Prize** Mathematics and Economics University of the West Indies **1977**
3. Open Mathematics **Scholarship**- University of the West Indies **1974-77**

## **Summary Of Teaching Evaluations 1985-present**

**(On Seven-Point Scale: 7 is highest)**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  | Course Structure | Learn. Climate | Involvement | Rigor |  |  |
| Semester | Course | # |  | M  | D | M | D | M | D | M | D | M |  |
| Fall 2020 | ECN 231: Honors Business Statistics | 29 | 17 | 6.1 | 5.9 | 6.0 | 6.4 | 6.0 | 6.5 | 6.3 | 5.5 | 6.3 |  |
| Fall 2020 | ECN 525: Applied Regression Models | 8 | 4 | 6.5 | 6.2 | 6.5 | 6.8 | 6.6 | 6.3 | 6.6 | 6.0 | 6.6 |  |
| Fall 2019 | ECN 231: Honors Business Statistics | 33 | 19 | 6.0 | 5.9 | 5.9 | 6.0 | 5.9 | 6.7 | 6.3 | 5.4 | 6.3 |  |
| Fall 2019 | ECN 525: Applied Regression Models | 8 | 6 | 6.4 | 5.2 | 6.4 | 6.2 | 6.4 | 5.6 | 6.3 | 5.2 | 6.3 |  |
| Fall 2019 | ECN 527: Categorical Data Analysis | 1 | 1 | 6.4 | 7.0 | 6.4 | 7.0 | 6.4 | 6.3 | 6.3 | 7.0 | 6.3 |  |
| Fall 2018 | ECN 231: Honors Business Statistics | 23 | 11 | 6.1 | 5.9 | 6.0 | 5.9 | 6.0 | 6.6 | 6.3 | 5.8 | 6.3 |  |
| Fall 2018 | ECN 525: Applied Regression Models | 2 | 2 | 6.6 | 6.7 | 6.5 | 7.0 | 6.7 | 6.3 | 6.6 | 6.3 | 6.6 |  |
| Fall 2018 | ECN 527: Categorical Data Analysis | 2 | 1 | 6.6 | 7.0 | 6.5 | 7.0 | 6.7 | 7.0 | 6.6 | 7.0 | 6.6 |  |
| Fall 2017 | ECN 527: Categorical Data Analysis | 10 | 5 | 6.5 | 6.4 | 6.5 | 6.6 | 6.6 | 6.3 | 6.6 | 5.7 | 6.5 |  |
| Fall 2017 | ECN 525: Applied Regression Models | 6 | 3 | 6.5 | 5.2 | 6.5 | 5.8 | 6.6 | 5.9 | 6.6 | 4.9 | 6.5 |   |
| Fall 2017 | ECN 231: Honors Business Statistics | 34 | 17 | 6.1 | 5.4 | 6 | 5.3 | 6 | 6.5 | 6.3 | 5.4 | 6.3 |   |
| Fall 2016 | ECN 527: Categorical Data Analysis | 8 | 6 | 6.3 | 6 | 6.5 | 6 | 6.6 | 6.1 | 6.3 | 6.1 | 6.4 | 6 |
| Fall 2016 | ECN 525: Applied Regression Models | 12 | 9 | 4.4 | 6 | 4.7 | 6 | 5.1 | 6.1 | 5 | 6.1 | 5.3 | 6 |
| Fall 2016 | ECN 231: Honors Business Statistics | 37 | 22 | 5.8 | 6 | 5.7 | 5.9 | 5.6 | 5.9 | 6.2 | 6.2 | 5.4 | 6.3 |
| Fall 2016 | ECN 221: Business Statistics | 24 | 14 | 4 | 6 | 4.4 | 5.9 | 3.7 | 5.9 | 5.8 | 6.2 | 4.2 | 6.3 |
| Fall 2015 | ECN 527: Categorical Data Analysis | 27 | 8 | 6 | 6.2 | 6.2 | 6 | 6.4 | 6.4 | 6.1 | 6.5 | 6.2 | 6 |
| Fall 2015 | ECN 525: Applied Regression Models | 18 | 6 | 6.4 | 6.2 | 6.8 | 6 | 6.9 | 6.4 | 6.6 | 6.5 | 6.7 | 6 |
| Fall 2015 | ECN 231: Honors Business Statistics | 32 | 13 | 4.8 | 6 | 4.9 | 5.8 | 4.4 | 5.8 | 6.1 | 6.1 | 4.5 | 6.2 |
| Fall 2014 | ECN 527: Categorical Data Analysis | 16 | 10 | 4.9 | 6 | 5.7 | 5.9 | 6.2 | 5.9 | 5.9 | 6.1 | 5.9 | 6.2 |
| Fall 2014 | ECN 525: Applied Regression Models | 8 | 5 | 6.8 | 6 | 6.7 | 5.9 | 6.7 | 5.9 | 6.9 | 6.1 | 6.9 | 6.2 |
| Fall 2014 | ECN 501: Statistics for Managers | 38 | 24 | 5.5 | 5.7 | 4.9 | 5.6 | 4.5 | 5.5 | 5.9 | 6 | 4.8 | 5.9 |
| Fall 2014 | ECN 231: Honors Business Statistics | 35 | 16 | 6.3 | 6 | 5.9 | 5.9 | 6.5 | 5.9 | 6.3 | 6.1 | 6.4 | 6.2 |
| Spring 2014 | ECN 231: Honors Business Statistics | 30 | 18 | 5.9 | 6 | 6 | 5.9 | 6 | 5.9 | 6.5 | 6.2 | 6 | 6.3 |
| Fall 2013 | ECN 527: Categorical Data Analysis | 21 | 7 | 5.6 | 6 | 6 | 5.8 | 6 | 5.9 | 6.4 | 6.2 | 5.6 | 6.3 |
| Fall 2013 | ECN 525: Applied Regression Models | 52 | 43 | 3.8 | 5.9 | 4.7 | 5.8 | 4.2 | 5.8 | 5.7 | 6.2 | 4.6 | 6.1 |
| Fall 2013 | ECN 525: Applied Regression Models | 17 | 11 | 5.2 | 6 | 5.2 | 5.8 | 5.2 | 5.9 | 5.3 | 6.2 | 5.2 | 6.3 |
| Fall 2013 | ECN 501: Statistics for Managers | 38 | 26 | 5.9 | 5.9 | 5.7 | 5.8 | 5.9 | 5.8 | 6.4 | 6.2 | 5.5 | 6.1 |
| Spring 2013 | ECN 231: Honors Business Statistics | 28 | 14 | 6.1 | 5.9 | 6 | 5.9 | 6.2 | 5.9 | 6.4 | 6.2 | 6.1 | 6.2 |
| Fall 2012 | ECN 527: Categorical Data Analysis | 22 | 11 | 6.2 | 6 | 6.5 | 6 | 6.7 | 6 | 6.5 | 6.4 | 6.5 | 6.3 |
| Fall 2012 | ECN 525: Applied Regression Models | 17 | 8 | 6 | 6 | 6.6 | 6 | 6.5 | 6 | 6.7 | 6.4 | 6.4 | 6.3 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Semester** | **Course** |  |  | **Q1** | **Q2** | **Q3** | **Q4** | **Q5** | **Q6** | **Q7** | **Q8** |  |  |
| S11 | ECN231 | 15 |  | 6.15 | 6.43 | 6.43 | 6.67 | 6.1 |  |  |  |  |  |
|  |  |  |  | (0.996) | (1.049) | (0.9297) | (0.9672) | (1.103 |  |  |  |  |  |
| F10 | ECN525 | 8 | 4 | 5.83 | 6.67 | 6.83 | 6.33 | 5.25 |  |  |  |  |  |
|  |  |  |  | (1.17) | (0.49) | (0.19) | (0.82) | (2.03) |  |  |  |  |  |
| F10 | ECN527 | 17 | 14 | 6.19 | 6.62 | 6.62 | 6.64 | 6.19 |  |  |  |  |  |
|  |  |  |  | (1.27) | (0.78) | (0.67) | (0.66) | (1.30) |  |  |  |  |  |
|  |  | **S** | **A** | **B** | **B** | **A** | **T** | **I** | **C** | **A** | **L** |  |  |
| F09 | ECN221 | 135 | 76 | 6.19 | 6.45 | 5.95 | 6.22 | 5.71 | 5.99 | 6.27 | 6.47 | 5.94 | 6.2 |
| F09 | ECN527 | 26 | 19 | 5.37 | 5.65 | 5.48 | 5.68 | 5.39 |  |  |  |  |  |
|  |  |  |  | (1.76) | (1.73) | (2.17) | (1.83) | (2.02) |  |  |  |  |  |
| F09 | ECN221 | 187 | 112 | 5.65 | 5.86 | 5.48 | 5.68 | 5.13 | 5.32 | 6.10 | 6.31 | 5.45 | 5.66 |
| Tri209 | ECN501 | 40 | 26 | 4.11 | 4.52 | 4.78 | 5.19 | 4.91 | 5.39 | 5.63 | 6.04 | 4.52 | 4.96 |
| F08 | ECN525 | 12 | 7 | 6.71 | 6.83 | 6.86 | 7 | 6.67 | 6.94 | 6.52 | 6.72 | 6.48 | 6.78 |
| F08 | ECN527 | 18 | 14 | 6.12 | 6.41 | 6.07 | 6.31 | 5.76 | 6.02 | 6.31 | 6.49 | 6.09 | 6.26 |
| S08 | ECN221 | 43 | 32 | 6.35 | 6.62 | 6.15 | 6.37 | 6.27 | 6.6 | 6.36 | 6.55 | 6.11 | 6.32 |
| S08 | ECN394 | 24 | 9 | 5.41 | 5.96 | 5.37 | 5.92 | 5.37 | 5.92 | 5.71 | 6.29 | 4.96 | 5.46 |
| F07 | ECN525 |  |  | 6.71 | 6.86 | 6.67 | 6.52 | 6.48 |  |  |  |  |  |
|  |  |  |  | (0.49) | (0.38) | (0.76) | (0.66) | (0.91) |  |  |  |  |  |
| F07 | ECN527 |  |  | 6.12 | 6.07 | 5.76 | 6.31 | 6.09 |  |  |  |  |  |
|  |  |  |  | (1.36) | (1.23) | (1.56) | (0.98) | (1.14) |  |  |  |  |  |
| **Summary Of Teaching Evaluations** **(On Five-Point Scale: 1 is the highest)** |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Semester** | **Course** | **Description** | **SIZE** | **Q1** | **Q2** | **Q3** | **Q4** | **Q5** | **Q6** | **Q7** | **Q8** |
| F06 | QBA527 |  | 15 | 1.00 | 1.93 | 2.07 | 1.20 | 2.00 | 1.73 | 1.53 | 1.67 |
| F06 | QBA321 |  |  22 | 1.00 | 1.73 | 1.82 | 1.09 | 1.59 | 1.64 | 1.73 | 1.64 |
| S05 | QBA535 |  | 15 | 1.20 | 1.86 | 1.80 | 1.27 | 1.73 | 2.07 | 1.21 | 1.69 |
| S05 | QBA530 |  | 9 | 1.33 | 2.89 | 2.00 | 1.78 | 2.44 | 2.22 | 1.67 | 2.22 |

|  |
| --- |
| **Summary Of Teaching Evaluations** **(On percentage distribution and 1 is the highest)** |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Semester** | **Course** | **Description** | **Item** | **VG** | **Good** |  |  | **Poor** | **Mean** | **Std** | **N** |
| S05 | HSM598 | ADV BIO  | Q8 | 0.67 | 0.28 | 0.06 | 0.00 | 0.00 | 1.39 |  | 18 |
|  |  |  | OVERALL | 0.56 | 0.34 | 0.11 | 0.00 | 0.00 | 1.55 |  |  |
| S04 | HSA 591 |  | Q8 | 0.72 | 0.28 | 0.00 | 0.00 | 0.00 | 1.28 | 0.46 | 47 |
|  |  |  | OVERALL | 0.74 | 0.23 | 0.03 | 0.00 | 0.00 | 1.29 |  |  |
| F03 | HSA 561 |  | Q8 | 0.72 | 0.28 | 0.03 | 0.00 | 0.00 | 1.28 | 0.46 | 47 |
|  |  |  | OVERALL | 0.74 | 0.23 | 0.03 | 0.00 | 0.00 | 1.29 |  |  |
| SS03 | HSA 561 |  | Q8 | 0.85 | 0.15 | 0.00 | 0.00 | 0.00 | 1.15 | 0.38 | 13 |
|  |  |  | OVERALL | 0.85 | 0.13 | 0.02 | 0.00 | 0.00 | 1.17 |  |  |
| S03 | HSA 598 |  | Q8 | 0.67 | 0.25 | 0.08 | 0.00 | 0.00 | 1.42 | 0.67 | 13 |
|  |  |  | OVERALL | 0.74 | 0.16 | 0.08 | 0.02 | 0.00 | 1.38 |  |  |
| F02 | HSA 561 |  | Q8 | 0.70 | 0.30 | 0.00 | 0.00 | 0.00 | 1.30 | 0.47 | 24 |
|  |  |  | OVERALL | 0.71 | 0.24 | 0.04 | 0.01 | 0.00 | 1.35 |  |  |
| F02 | QBA 527 |  | Q8 | 0.40 | 0.60 | 0.00 | 0.00 | 0.00 | 1.60 | 0.52 | 12 |
|  |  |  | OVERALL | 0.57 | 0.38 | 0.04 | 0.01 | 0.00 | 1.49 |  |  |
| SS02 | QBA221 |  | Q8 | 0.85 | 0.12 | 0.00 | 0.00 | 0.03 | 1.24 | 0.74 | 34 |
|  |  |  | OVERALL | 0.83 | 0.12 | 0.04 | 0.00 | 0.01 | 1.24 |  |  |
| SS02 | QBA221 |  | Q8 | 0.79 | 0.17 | 0.02 | 0.02 | 0.00 | 1.29 | 0.64 | 42 |
|  |  |  | OVERALL | 0.76 | 0.20 | 0.03 | 0.01 | 0.01 | 1.31 |  |  |
| F01 | HSA 561 |  | Q8 | 0.88 | 0.04 | 0.04 | 0.04 | 0.00 | 1.23 | 0.71 | 27 |
|  |  |  | OVERALL | 0.77 | 0.16 | 0.04 | 0.02 | 0.00 | 1.34 |  |  |
| F01 | QBA502 |  | Q8 | 0.79 | 0.16 | 0.05 | 0.00 | 0.00 | 1.26 | 0.54 | 47 |
|  |  |  | OVERALL | 0.73 | 0.21 | 0.06 | 0.01 | 0.00 | 1.34 |  |  |
| F01 | QBA502D |  | Q8 | 0.53 | 0.33 | 0.02 | 0.05 | 0.07 | 1.79 | 1.17 | 47 |
|  |  |  | OVERALL | 0.50 | 0.29 | 0.12 | 0.04 | 0.05 | 1.85 |  |  |
| F01 | QBA527 |  | Q8 | 0.85 | 0.15 | 0.00 | 0.00 | 0.00 | 1.15 | 0.37 | 17 |
|  |  |  | OVERALL | 0.82 | 0.17 | 0.01 | 0.00 | 0.00 | 1.19 |  |  |
| SSII01 | QBA221 |  | Q8 | 0.92 | 0.03 | 0.06 | 0.00 | 0.00 | 1.14 | 0.49 | 39 |
|  |  |  | OVERALL | 0.86 | 0.09 | 0.04 | 0.01 | 0.00 | 1.19 |  |  |
| S01 | QBA530 |  | Q8 | 0.80 | 0.00 | 0.00 | 0.00 | 0.20 | 1.60 | 1.34 | 5 |
|  |  |  | OVERALL | 0.75 | 0.10 | 0.05 | 0.10 | 0.00 | 1.50 |  |  |
| F00 | HSA561 |  | Q8 | 0.55 | 0.25 | 0.10 | 0.05 | 0.05 | 1.80 | 1.12 | 22 |
|  |  |  | OVERALL | 0.82 | 0.17 | 0.01 | 0.00 | 0.00 | 1.19 |  |  |
| F00 | QBA502 |  | Q8 | 0.08 | 0.31 | 0.43 | 0.16 | 0.02 | 2.73 | 0.90 | 49 |
| F00 | QBA502 |  | Q8 | 0.31 | 0.41 | 0.22 | 0.06 | 0.00 | 2.04 | 0.88 | 49 |
| F00 | QBA527 |  | Q8 | 0.85 | 0.15 | 0.00 | 0.00 | 0.00 | 1.15 | 0.37 | 17 |
|  |  |  | OVERALL | 0.82 | 0.17 | 0.01 | 0.00 | 0.00 | 1.19 |  |  |
| S00 |  |  | **Sabbatical** |  |  |  |  |  |  |  |  |
| F99 | HSA 561 |  | Q8 | 0.85 | 0.15 | 0.00 | 0.00 | 0.00 | 1.15 | 0.37 | 17 |
|  |  |  | OVERALL | 0.82 | 0.17 | 0.01 | 0.00 | 0.00 | 1.19 |  |  |
| F99 | QBA502 |  | Q8 | 0.35 | 0.31 | 0.29 | 0.02 | 0.02 | 2.04 | 0.95 | 51 |
| F99 | QBA502 |  | Q8 | 0.33 | 0.41 | 0.16 | 0.08 | 0.02 | 2.04 | 0.99 | 51 |
| SS99 | QBA 221 |  | Q8 | 0.78 | 0.18 | 0.04 | 0.00 | 0.00 | 1.27 | 0.54 | 45 |
|  |  |  | OVERALL | 0.77 | 0.18 | 0.03 | 0.01 | 0.00 | 1.28 |  |  |
| SS99 | QBA 221 |  | Q8 | 0.80 | 0.14 | 0.00 | 0.06 | 0.00 | 1.31 | 0.76 | 36 |
|  |  |  | OVERALL | 0.77 | 0.16 | 0.05  | 0.02 | 0.01 | 1.34 |  |  |
| S99 | QBA530 |  | Q8 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 3 |
|  |  |  | OVERALL | 0.92 | 0.08 | 0.00 | 0.00 | 0.00 | 1.08 |  |  |
| S99 | QBA590 |  | Q8 | 0.90 | 0.10 | 0.00 | 0.00 | 0.00 | 1.10 | 0.32 | 10 |
|  |  |  | OVERALL | 0.86 | 0.11 | 0.03 | 0.01 | 0.00 | 1.16 |  |  |
| S99 | QBA221 |  | Q8 | 0.69 | 0.22 | 0.07 | 0.02 | 0.01 | 1.43 | 0.76 | 165 |
|  |  |  | OVERALL | 0.67 | 0.24 | 0.06 | 0.03 | 0.01 | 1.48 |  |  |
| F98 | QBA502 |  | Q8 | 0.42 | 0.35 | 0.21 | 0.02 | 0.00 | 1.83 | 0.82 | 48 |
| F98 | QBA527 |  | OVERALL | 0.78 | 0.11 | 0.11 | 0.00 | 0.00 | 1.33 | 0.71 | 9 |
|  |  |  | Q8 | 0.69 | 0.23 | 0.03 | 0.04 | 0.01 | 1.46 |  |  |
| F98 | HSA561 |  | OVERALL | 0.90 | 0.10 | 0.00 | 0.00 | 0.00 | 1.10 | 0.31 | 33 |
|  |  |  | Q8 | 0.82 | 0.14 | 0.05 | 0.00 | 0.00 | 1.23 |  |  |
| SS1-98 | QBA221 |  | Q8 | 0.92 | 0.08 | 0.00 | 0.00 | 0.00 | 1.08 | 0.28 | 38 |
|  |  |  | OVERALL | 0.90 | 0.08 | 0.02 | 0.00 | 0.00 | 1.13 |  |  |
| SS1-98 | QBA221 |  | Q8 | 0.77 | 0.22 | 0.02 | 0.00 | 0.00 | 1.25 | 0.47 | 60 |
|  |  |  | OVERALL | 0.71 | 0.22 | 0.05 | 0.01 | 0.00 | 1.36 |  |  |
| S98 | QBA530 |  | Q8 | 0.63 | 0.38 | 0.00 | 0.00 | 0.00 | 1.38 |  |  |
|  |  |  | OVERALL | 0.71 | 0.23 | 0.05 | 0.02 | 0.00 | 1.37 |  |  |
| F97 | HSA598 |  | Q8 | 0.77 | 0.23 | 0.00 | 0.00 | 0.00 | 1.23 | 0.43 | 26 |
|  |  |  | OVERALL | 0.74 | 0.25 | 0.01 | 0.00 | 0.00 | 1.27 |  |  |
| F97 | QBA525 |  | Q8 | 0.38 | 0.54 | 0.00 | 0.08 | 0.00 | 1.77 | 0.83 | 13 |
|  |  |  | OVERALL | 0.47 | 0.41 | 0.09 | 0.02 | 0.01 | 1.68 |  |  |
| F97 | QBA527 |  | Q8 | 0.73 | 0.00 | 0.18 | 0.09 | 0.00 | 1.64 | 1.12 | 13 |
|  |  |  | OVERALL | 0.61 | 0.22 | 0.11 | 0.03 | 0.03 | 1.65 |  |  |
| SS1-97 | QBA221 |  | Q8 | 0.85 | 0.13 | 0.02 | 0.00 | 0.00 | 1.17 | 0.43 | 54 |
| SS1-97 | QBA221 |  | Q8 | 0.79 | 0.16 | 0.05 | 0.00 | 0.00 | 1.26 | 0.55 | 38 |
| F96 | HSA 598 |  | Q8 | 0.93 | 0.07 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 14 |
| F96 | QBA 525 |  | Q8 | 0.50 | 0.31 | 0.14 | 0.05 | 0.00 | 1.63 | 0.92 | 8 |
| F96 | QBA 502 |  | Q8 | 0.24 | 0.68 | 0.05 | 0.03 | 0.00 | 1.86 | 0.63 | 38 |
| F96 | QBA 527 |  | Q8 | 0.45 | 0.24 | 0.19 | 0.07 | 0.06 | 2.08 | 1.24 | 13 |
| SS9 | QBA 221 |  | Q8 | 0.85 | 0.13 | 0.02 | 0.00 | 0.00 | 1.17 | 0.43 | 54 |
| SS9 | QBA 221 |  | Q8 | 0.79 | 0.16 | 0.05 | 0.00 | 0.00 | 1.26 | 0.55 | 38 |
| S96 | QBA530 |  | Q8 | 0.60 | 0.27 | 0.11 | 0.01 | 0.00 | 1.55 | 0.69 | 12 |
| F95 | HSA 598 |  | Q.8 | 0.70 | 0.30 | 0.00 | 0.00 | 0.00 | 1.30 | 0.48 | 24 |
| F95 | HSA 522 |  | Q.8 | 0.19 | 0.38 | 0.19 | 0.25 | 0.00 | 2.50 | 1.08 | 32 |
| F95  | QBA502 |  | Q8 | 0.00 | 0.53 | 0.20 | 0.27 | 0.00 | 2.73 | 0.88 | 15 |
| F95  | QBA525 |  | Q8 | 0.56 | 0.31 | 0.00 | 0.13 | 0.00 | 1.69 | 1.01 | 21 |
| S95 | QBA 527 |  | Q.8 | 0.67 | 0.11 | 0.22 | 0.00 | 0.00 | 1.56 | 0.88 | 10 |
| S95 | QBA 530 |  | Q.8 | 0.54 | 0.38 | 0.08 | 0.00 | 0.00 | 1.54 | 0.66 | 16 |
| F94 | QBA 525 |  | Q.8 | 0.61 | 0.28 | 0.06 | 0.06 | 0.00 | 1.56 | 0.86 | 20 |
| F94 | QBA 591 |  | Q.8 | 0.56 | 0.11 | 0.22 | 0.11 | 0.00 | 1.89 | 1.17 | 13 |
| S94 | QBA 527 |  | Q.8 | 0.47 | 0.26 | 0.16 | 0.11 | 0.00 | 1.89 | 1.05 | 22 |
| S94 | QBA 530 |  | Q.8 | 0.31 | 0.54 | 0.15 | 0.00 | 0.00 | 1.85 | 0.69 | 18 |
| F93 | QBA 591 |  | Q.8 | 0.69 | 0.33 | 0.00 | 0.00 | 0.00 | 1.33 | 0.52 | 6 |
| F93 | QBA 525 |  | Q.8 | 0.50 | 0.34 | 0.16 | 0.00 | 0.00 | 1.66 | 0.75 | 32 |
| SSI | QBA 221 |  | Q.8 | 0.78 | 0.18 | 0.04 | 0.00 | 0.00 | 1.30 | 0.70 | 23 |
| SSI | QBA 521 |  | Q.8 | 0.77 | 0.20 | 0.03 | 0.00 | 0.00 | 1.26 | 0.51 | 35 |
| SSI | QBA 221 |  | Q.8 | 0.92 | 0.04 | 0.04 | 0.00 | 0.00 | 1.13 | 0.45 | 24 |
| SSI | QBA 221 |  | Q.8 | 0.72 | 0.28 | 0.00 | 0.00 | 0.00 | 1.28 | 0.46 | 18 |
| S92 | QBA 221 |  | Q.8 | 0.7 | 0.25 | 0.05 | 0.00 | 0.00 | 1.35 | 0.58 | 117 |
| S92 | QBA 221 |  | Q.8 | 0.72 | 0.23 | 0.04 | 0.01 | 0.00 | 1.35 | 0.66 | 140 |
| S92 | QBA 527 |  | Q.8 | 0.67 | 0.33 | 0.00 | 0.00 | 0.00 | 1.33 | 0.49 | 12 |
| F91 | QBA 221 |  | Q.8 | 0.66 | 0.22 | 0.09 | 0.02 | 0.00 | 1.50 | 0.81 | 142 |
| F91 | QBA 221 |  | Q.8 | 0.71 | 0.19 | 0.08 | 0.01 | 0.00 | 1.45 | 0.83 | 167 |
| F91 | QBA 221 |  | Q.8 | 0.62 | 0.23 | 0.06 | 0.06 | 0.00 | 1.64 | 1.01 | 47 |
| S91 | QBA 791 |  | Q.8 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 6 |
| S91 | QBA 511 |  | Q.8 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 4 |
| F90 | QBA 525 |  | Q.8 | 0.73 | 0.27 | 0.00 | 0.00 | 0.00 | 1.27 | 0.47 | 11 |
| F90 | QBA 527 |  | Q.8 | 0.88 | 0.12 | 0.00 | 0.00 | 0.00 | 1.13 | 0.35 | 8 |
| S90 | QBA 525 |  | Q.8 | 0.95 | 0.05 | 0.00 | 0.00 | 0.00 | 1.05 | 0.23 | 19 |
| S90 | QBA 530 |  | Q.8 | 0.43 | 0.57 | 0.00 | 0.00 | 0.00 | 1.57 | 0.51 | 14 |
| F89 | QBA 527 |  | Q.8 | 0.50 | 0.36 | 0.07 | 0.07 | 0.00 | 1.71 | 0.91 | 14 |
| F89 | QBA 560 |  | Q.8 | 0.86 | 0.14 | 0.00 | 0.00 | 0.00 | 1.14 | 0.38 | 8 |
| S89 | QBA 501 |  | Q.8 | 0.74 | 0.23 | 0.03 | 0.00 | 0.00 | 1.29 | 0.52 | 36 |
| S89 | QBA 525 |  | Q.8 | 0.85 | 0.15 | 0.00 | 0.00 | 0.00 | 1.15 | 0.37 | 20 |
| F88 | QBA 405 |  | Q.8 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 5 |
| F88 | QBA 527 |  | Q.8 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 3 |
| SS8 | QBA 500 |  | Q.8 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 7 |
|  |  |  |  | 0.95 | 0.05 | 0.00 | 0.00 | 0.00 | 1.05 |  | 7 |
|  SS88 | QBA525 |  | Q.8 | 0.93 | 0.07 | 0.00 | 0.00 | 0.00 |  |  | 14 |
|  |  |  | Overall | 0.87 | 0.09 | 0.04 | 0.00 | 0.00 | 1.15 |  | 14 |
| S88 | QBA501 |  | Q.8 | 0.87 | 0.13 | 0.00 | 0.00 | 0.00 |  |  | 31 |
|  |  |  | Overall | 0.77 | 0.21 | 0.02 | 0.00 | 0.00 | 1.25 |  | 31 |
| S88 | QBA525 |  | Q.8 | 0.94 | 0.00 | 0.06 | 0.00 | 0.00 | 1.00 |  | 16 |
|  |  |  | Overall | 0.63 | 0.24 | 0.13 | 0.00 | 0.00 | 1.51 |  | 16 |
| F87 | QBA405 |  | Q.8 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 9 |
|  |  |  | Overall | 0.90 | 0.10 | 0.00 | 0.00 | 0.00 | 1.1 |  | 9 |
| F87 | QBA527 |  | Q.8 | 0.80 | 0.20 | 0.00 | 0.00 | 0.00 |  |  | 5 |
|  |  |  | Overall | 0.77 | 0.20 | 0.02 | 0.00 | 0.00 | 1.25 |  | 5 |
| S87 | QBA501 |  | Q.8 | 0.61 | 0.32 | 0.06 | 0.00 | 0.00 | 1.45 | 0.61 | 36 |
|  |  |  | Overall | 0.58 | 0.31 | 0.10 | 0.01 | 0.00 | 1.55 | 0.20 | 36 |
| S87 | QBA525 |  | Q.8 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1 | 0 | 14 |
|  |  |  | Overall | 0.76 | 0.22 | 0.02 | 0.00 | 0.00 | 1.26 | 0.17 | 14 |
| F86 | QBA405 |  | Q.20 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1 | 0 | 10 |
|  |  |  | Overall | 0.63 | 0.35 | 0.02 | 0.00 | 0.00 | 1.39 | 0.22 | 10 |
| F86 | QBA527 |  | Q.20 | 0.86 | 0.14 | 0.00 | 0.00 | 0.00 | 1.14 | 0.35 | 7 |
|  |  |  | Overall | 0.84 | 0.14 | 0.02 | 0.00 | 0.00 | 1.18 | 0.18 | 7 |
| S86 | QBA501 |  | Q.20 | 0.96 | 0.04 | 0.00 | 0.00 | 0.00 | 1.04 | 0.2 | 25 |
|  |  |  | Overall | 0.74 | 0.22 | 0.04 | 0.00 | 0.00 | 1.3 | 0.22 | 25 |
| S86 | QBA591 |  | Q.20 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1 | 0 | 9 |
|  |  |  | Overall | 0.91 | 0.08 | 0.01 | 0.00 | 0.00 | 1.09 | 0.1 | 9 |
| F85 | QBA501 |  | Q.20 | 0.58 | 0.27 | 0.12 | 0.04 | 0.00 | 1.62 | 0.84 | 27 |
|  |  |  | Overall | 0.55 | 0.29 | 0.13 | 0.03 | 0.00 | 1.67 | 0.27 | 27 |
| F85 | QBA591 |  | Q.20 | 0.60 | 0.40 | 0.00 | 0.00 | 0.00 | 1.8 | 0.98 | 5 |
|  |  |  | Overall | 0.53 | 0.25 | 0.21 | 0.01 | 0.00 | 1.7 | 0.24 | 5 |
| SS85 | QBA501 |  | Q.20 | 0.72 | 0.17 | 0.06 | 0.06 | 0.00 | 1.44 | 0.83 | 18 |
|  |  |  | Overall | 0.69 | 0.23 | 0.07 | .01. | 0.00 | 1.41 | 0.14 | 18 |
| SS85 | QBA501 |  | Q.20 | 0.74 | 0.21 | 0.00 | 0.05 | 0.00 | 1.37 | 0.74 | 19 |
|  |  |  | Overall | 0.76 |  0.21 | 0.02 | 0.01 | 0.00 | 1.29 | 0.12 | 19 |
| S85 | QBA501 |  | Q.20 | 0.87 | 0.07 | 0.07 | 0.00 | 0.00 | 1.2 | 0.54 | 15 |
|  |  |  | Overall | 0.7 | 0.24 | 0.06 | 0.00 | 0.00 | 1.37 | 0.13 | 15 |