

## **David M. Nickerson**

**Department of Statistics  
University of Central Florida  
Orlando, FL 32816-2370**

### **Education**

- Ph.D., August 1985, University of Florida, Department of Statistics
- M.Stat., May 1982, University of Florida, Department of Statistics
- B.S., August 1980, University of Central Florida, Department of Mathematics

### **Professional Employment**

- Assistant, Associate and Full Professor, University of Central Florida, Department of Statistics, August 1990 to present.
- Chair, University of Central Florida, Department of Statistics, August 2007 to September 2015.
- Interim Chair, University of Central Florida, Department of Statistics and Actuarial Science, August 1997 to July 1999 and January 2005 to July 2007.
- Assistant and Associate Professor, University of Georgia, Department of Statistics, September 1986 to December 1991.
- Assistant Research Scientist, University of Florida, Biostatistics Unit of the Department of Statistics, September 1985 to August 1986.

### **Awards**

- Teaching Incentive Program Award – UCF award for recognition of teaching productivity and excellence, 1996 and 2004.
- Faculty Award - In recognition of the outstanding senior graduate student in the Department of Statistics, University of Florida, 1984.
- Phi Kappa Phi - Graduate School Honor Society, 1982.
- William Mendenhall Award - In recognition of the outstanding first year graduate student in the Department of Statistics, University of Florida, 1981.

### **Grants & Contracts**

- University of Florida – College of Medicine, 2015-2017: Gene Therapy for Post-Traumatic Osteoarthritis, \$31,502 (PI)
- University of Florida – College of Medicine, 2011-2012: Utility of AAV Sertotype for Gene Delivery in Treatment of Chronic Joint Disease, \$14,593 (PI)
- National Institute of Health, 2010-2012: Using Mixed Reality to build per resistance skills in Latina middle schoolers. \$434,812 (Co-PI, my share \$21,741).

- Golfweek, 2006: Survey of Turf Management Programs. \$8,500 (Statistical consultant, my share \$4,250).
- Dynamac Corporation, 2005: Precipitation Chemistry in Central Florida. \$4,064 (Statistical Consultant).
- Embry-Riddle Aeronautical University, 1998: Tuition Pricing Study. \$5,000 (Statistical Consultant).
- Game & Fresh Water Fish Commission, 1997-98: Alligator Survey. \$3,600 (Statistical Consultant).
- National Science Foundation, 1993-1995: Scientific Computing Research Environments: Mathematics. \$40,000 (Co-PI).
- University of Georgia, 1987-88: "Two-Stage Shrinkage Estimation". Faculty Research Grant Program, \$2,500 (PI).

### **Refereed Publications**

1. Smith, A.D., Morton, A.J., Winter, M.D., Colahan, P.T. Ghivizzani, S., Brown, M.P., Hernandez, J.A. and **Nickerson, D.M.** (2016). Magnetic resonance imagining scoring of an experimental model of post-traumatic osteoarthritis in the equine carpus, *Veterinary Radiology & Ultrasound*, **57**: 502-514.
2. Weiler, A., Von Holle, B. and **Nickerson, D.** (2013). Reducing biotic and abiotic land-use legacies to restore invaded, abandoned citrus groves. *Restoration Ecology* **21**: 755-762.
3. Watson, R.S., Broome, T.A., Levings, P.P., Rice, B.L., Kay, J.D., Smith, A.D., Gouze, E., Gouze, J-N, Dacanay, A., Hauswirth, W.W., **Nickerson, D.M.**, Dark, M.J., Colahan, P.T. and Ghivizzani, S.C. (2013). scAAV-Mediated gene transfer of interleukin 1-receptor antagonist to synovium and articular cartilage in large mammalian joints. *Gene Therapy* **20**: 670-677.
4. Norris, A.E., Hughes, C., Hecht, M.L., Peragallo, N.P. and **Nickerson, D.** (2013). Randomized trial of a peer resistance skill-building game for Hispanic early adolescent girls. *Nursing Research* **62**: 25-35.
5. Marshall, F.E., Smith D.T. and **Nickerson, D.M.** (2011). Empirical tools for simulating salinity in the estuaries in Everglades National Park, Florida. *Estuarine, Coastal and Shelf Science* **95**: 377-387.
6. Broughton, E.H., Quintana-Ascencio, P.F. and **Nickerson, D.** (2011). Differential facilitative and competitive effects of a dominant macrophyte in grazed subtropical wetlands. *Journal of Ecology* **99**: 1263-1271.
7. Norris, A., Aroian, K. and **Nickerson, D.M.** (2011). Premigration persecution, post-migration stressors and resources, and post-migration mental health: A study of severely traumatized U.S. Arab immigrant women. *Journal of the American Psychiatric Nurses Association* **17**: 283-293.
8. Broughton, E.H., Quintana-Ascencio, P.F., **Nickerson, D.** and Bohlen, P.J. (2011). Management intensity affects the relationship between non-native and native species in subtropical wetlands. *Applied Vegetation Science* **14**: 210-220.
9. Von Holle, B., Wei, Y. and **Nickerson, D.** (2010). Climatic variability leads to later seasonal flowering of Floridian plants. *PLoS ONE*, **5**: 1-9.

10. Levings, P.P., McGarry, S.V., Currie, T.P., **Nickerson, D.M.**, McClellan, S., Ghivizzani, S.C., Steindler, D.A. and Gibbs, C.P. (2009). Expression of an Exogenous Human Oct-4 Promoter Identifies Tumor-Initiating Cells in Osteosarcoma. *Cancer Research*, **69**: 5648-5655.
11. Kay, J.D., Gouze, E., Oligino, T.J., Gouze, J-N., Watson, R.S., Levings, P.P., Bush, M.L., Dacanay, A., **Nickerson, D.M.**, Robbins, P.D., Evans, C.H. and Ghivizzani, S.C. (2009). Intra-articular gene delivery and expression of IL-1Ra mediated by self-complementary adeno-associated virus. *Journal of Gene Medicine*, **11**: 605-614.
12. Su, X., Tsai, C., Wang, H., **Nickerson, D.M.** and Li, B. (2009). Subgroup analysis via recursive partitioning. *Journal of Machine Learning Research*, **10**: 141-158.
13. Ghivizzani, S.C., Gouze, E., Gouze, J-N., Kay, J.D., Bush, M.L., Watson, R.S., Levings, P.P., **Nickerson, D.M.**, Colahan, P.T., Robbins, P.D. and Evans, C.H. (2008). Perspectives on the use of gene therapy for chronic joint diseases. *Current Gene Therapy*, **8**: 273-286.
14. **Nickerson, D.M.** (2008). Counting by weighing and its effect on comparing population proportions. *Statistics and Probability Letters*, **78**: 2321-2326.
15. Roth, J.D., Marshall, J.D., Murray, D.L., **Nickerson, D.M.**, Steury, T.D. (2007). Geographic gradients in diet affect population dynamics of Canada lynx. *Ecology*, **88**: 2736-2743.
16. **Nickerson, D.M.** and Madsen, B.C. (2005). Nonlinear regression and ARIMA models for precipitation chemistry in East Central Florida from 1978 to 1997. *Environmental Pollution*, **135**: 371-379.
17. Weheba, G.S. and **Nickerson, D.M.** (2005). The Economic Design of  $\bar{x}$  Charts: A Proactive Approach. *Quality and Reliability Engineering International*, **21**: 91-104.
18. **Nickerson, D.M.** (2003). Addendum to counting by weighing and the seed testing problem. *Annals of Applied Biology*, **143**: 371-374.
19. **Nickerson, D.M.** and Fine, T.S. (2002). District-level bounds in 2x3 tables. *Political Analysis*, **10**: 208.
20. Mulford, L.A., Taylor, J.S., **Nickerson, D.M.** and Chen, S. (1999). NF performance at full and pilot scale. *Journal of the American Water Works Association*, **91**: 64-75.
21. **Nickerson, D.M.** and Brunell, A. (1998). Power analysis for detecting trends in the presence of concomitant variables. *Ecology*, **79**: 1442-1447.
22. **Nickerson, D.M.** (1996). Sequential, accelerated-sequential and three-stage estimation of the mean of a first-order stationary autoregressive process: a Monte Carlo study. *Journal of Statistical Computation and Simulation*, **54**: 333-353.
23. **Nickerson, D.M.** (1995). Letter to the Editor. *The American Statistician*, **49**: 324.
24. **Nickerson, D.M.** (1994). Construction of a conservative confidence region from projections of an exact confidence region in multiple linear regression. *The American Statistician*, **48**: 120-124.
25. **Nickerson, D.M.** (1993). Another look at counting by weighing. *Communications in Statistics -- Simulation and Computation*, **22**: 323-343.
26. **Nickerson, D. M.** and Basawa, I. V. (1992). Shrinkage estimation for linear models with correlated errors. *Sankhya*, Series A, **54**: 411-424.
27. **Nickerson, D.M.** (1991). Reply to Technical Comment by Dugglely and Ward. *Physiological Zoology*, **64**: 890-893.

28. Grossman, G.D., **Nickerson, D.M.**, and Freeman, M.C. (1991). Principle components analysis of assemblage structure data: utility of tests based on eigenvalues. *Ecology*, **72**: 341-347.
29. Kim, Y., **Nickerson, D.M.**, and Basawa, I.V. (1990). Shrinkage estimation for a dynamic input-output linear model. *Statistical Inference in Stochastic Processes*, **6**: 249-266.
30. **Nickerson, D.M.**, Facey, D.E., and Grossman, G.D. (1989). Estimating physiological thresholds using two-phase segmented regression. *Physiological Zoology*, **62**: 866-887.
31. Blake, K., Massey, K., Hendeles, L., **Nickerson, D.M.**, and Neims, A. (1988). Relative efficacy of phenytoin and phenobarbital for the prevention of pheophylline induced seizures in mice. *Annals of Emergency Medicine*, **17**: 1024-1028.
32. **Nickerson, D.M.** (1988). Dominance of the positive part version of the James-Stein estimator. *Statistics & Probability Letters*, **7**: 97-103.
33. **Nickerson, D.M.** (1987). Sequential shrinkage estimation of the difference of two multivariate normal means. *Sequential Analysis*, **6**: 325-350.
34. **Nickerson, D.M.** (1987). Sequential shrinkage estimation of linear regression parameters. *Sequential Analysis*, **6**: 93-117.
35. Ghosh, M., **Nickerson, D.M.**, and Sen, P.K. (1987). Sequential shrinkage estimation. *Annals of Statistics*, **15**: 817-829.
36. Ghosh, M., and **Nickerson, D.M.** (1986). Sequential shrinkage estimation of independent normal means with unknown variances. *Communications in Statistics -- Theory and Methods*, **15**: 2115-2130.
37. Sposetti, V.J., Gibbs, C.H., Alderson, T.H., Jagers, J.H., Richmond, A., Conlon, M., and **Nickerson, D.M.** (1986). Bite force and EMG activity in overdenture wearers before and after attachment placement. *Journal of Prosthetic Dentistry*, **55**: 265-273.
38. Fennel, R.S., Purcell, C.A., Fitzsimmons, J.R., Carter, R.L., and **Nickerson, D.M.** (1985). Serial hippuran scanning to detect the late onset of renal allograft rejection in pediatrics transplant recipients. *International Journal of Pediatric Nephrology*, **6**: 256-260.

### **Proceedings**

1. Mulford, L.A., Taylor, J.S. and **Nickerson, D.M.** (1997). ICR membrane pilot plant verification testing. *Proceedings of the American Water Works Association*, Volume C: 707-721.
2. Anagostopoulos, G.C., Georgiopoulos, M., **Nickerson, D.** and Bebis, G. (1997). Ensembles of hybrid intelligent experts: extending the power of optimal linear combiners. *Proceedings of the IEEE International Conference on Systems, Man & Cybernetics*, Volume 2, 1350-1355.

### **Book Reviews**

- Concepts in Probability and Stochastic Modeling. J.J. Higgins and S. Keller-McNulty (1995). *The American Statistician*, **49**: 321.

### **Presentations at Annual Meetings**

- 1992 - Another Look at Counting by Weighing, ASA Annual Meetings, Boston, Massachusetts.
- 1991 - Shrinkage Estimation for a Dynamic Input-Output Linear Model, ASA Annual Meetings, Atlanta, Georgia.
- 1989 - Sequential Shrinkage Estimation for Linear Models with Autocorrelated Errors, *Invited presentation*, ASA Annual Meetings, Washington, D.C.
- 1988 - Sequential Shrinkage Estimation of the Difference Between Two Multivariate Normal Means, ASA Annual Meetings, New Orleans, LA.
- 1987 - Sequential Shrinkage Estimation of Linear Regression Parameters (Updated), ASA Atlanta Chapter Meetings.
- 1985 - Sequential Shrinkage Estimation of Linear Regression Parameters, ASA Annual Meetings, Las Vegas, NV.

### **Professional Activities**

- 2008 – Referee, *The American Statistician*
- 2004 – Referee, *Sequential Analysis, Computers & Industrial Engineering*
- 2003 – Referee, *Communications in Statistics*
- 1998 - Referee, *IEEE Transactions on Reliability*
- 1996 - Referee, *Journal of Statistical Planning and Inference, The American Statistician*
- 1995 - Book Reviewer, *The American Statistician*
- 1994 - Referee, *Statistical Computation and Simulation, Functional Ecology, Journal of Statistical Planning and Inference, Journal of Applied Statistical Science*
- 1993 - Referee, *Communications in Statistics, Metrika*
- 1992 - Referee, *Communications in Statistics*
- 1991 - Referee, *Communications in Statistics*
- 1990 - Referee, *Metrika*
- 1989 - Referee, *Sequential Analysis, Canadian Journal of Statistics.*
- 1988 - Referee, *Institute of Statistical Mathematics, Communications in Statistics.*
- 1987 - Referee, *Sequential Analysis*, Reviewer, AFOSR proposals, Chair, IMS session #89, IMS Annual Meetings, Chair, SRCOS session #5, Summer Conference in Statistics
- 1986 - Referee, *Communications in Statistics*
- 1984 - Referee, *Sequential Analysis*

### **Professional Memberships**

- American Statistical Association
- Institute of Mathematical Statistics

### **Society of Actuaries/Casualty Actuarial Society Exams Passed**

- Exam P/1 – Probability (09/23/2008)
- Exam FM/2 – Financial Mathematics (05/05/2009)
- Exam MFE/3F – Models for Financial Economics (05/12/2010)

- Exam C/4 – Construction and Evaluation of Actuarial Models (02/09/2016)
- Exam MLC – Models for Life Contingencies (05/03/2016)