Calvin L. Williams, Ph.D.

Department of Mathematical Sciences
Clemson University
Clemson, S.C. 29634-1907

Education:

8/77 - 12/81:	College of Charleston, Department of Mathematics
	Bachelors of Science, Mathematics
Honors:	Pi Mu Epsilon Honorary Mathematics Fraternity
	Recipient of College of Charleston Alumni Award for Outstanding Achievement
1/82 - 5/87:	Medical University of South Carolina, Department of Biometry
	Doctor of Philosophy, Biometry
Honors:	Upjohn Pharmaceutical Company-Biometry Career Development Award
	Mu Sigma Rho National Statistical Honor Fraternity

Dissertation

- "An Expert System for the Conceptualization of Experimental Designs" Doctoral dissertation, Medical University of South Carolina, 1987.

Experience:

8/93 -	Associate Professor (tenured), Department of Mathematical Sciences Clemson University
6/94 - 5/95	Visiting Associate Professor, Department of Statistics Carnegie Mellon University
8/93 - 5/94	Postdoctoral Research Professor, Department of Statistics Psychiatric Statistics Training Program Carnegie Mellon University
6/93 - 8/93	Visiting Associate Professor, Department of Statistics Stanford University
7/87 - 8/93	Assistant Professor, Department of Mathematical Sciences Clemson University
	Mathematics Consultant, Special Projects - Clemson University Career Workshop Clemson University
5/85 - 9/85 **5/84 - 9/84** **5/82 - 9/82**	Biostatistician Intern, Biostatistics Unit - 7293 Upjohn Pharmaceutical Company J. R. Assenzo, Ph.D John R. Schultz, Ph.D., Noel Mohberg, Ph.D. Kathleen Lamborn, Ph.D. Supervisors

Grants:

Research:

<u>**National Science Foundation**</u>
"Numerical Assessments of Goodness-of-Fit Tests Based on Statistically Equivalent Blocks"
Principal Investigator: Calvin L. Williams, Ph.D.
Amount funded: **$119,231.58**

<u>**Clemson University Research Grant**</u>
"Representing Characteristics of Experimental Designs via Stereotypical Frames for Expert System Development"
Principal Investigator: Calvin L. Williams, Ph.D.
Amount funded: **$1,800.00**

Travel:

<u>**National Science Foundation**</u>
Travel Grant to International Biometrics Conference
Hamilton, New Zealand
Principal Investigator: Calvin L. Williams, Ph.D.
Amount funded: **$1,500.00**

Service:

<u>**National Science Foundation**</u>
"Implementing the STANDARDS Using Calculators and Computers in the College Preparatory Sequence"
Principle Investigator: John Luedeman, Mathematics Education
Amount funded: **$150,000.00**

<u>**The College Board**</u>
"Advanced Placement Statistics Institute"
Principle Investigator: Calvin L. Williams, Ph.D.
Amount funded: **$18,000.00**

<u>**Texas Instruments**</u>
"Teachers Teaching with Technology Mini-Grant"
Principle Investigator: Calvin L. Williams, Ph.D.
Amount funded: **$4,000.00**

Professional Invitations

Department of Statistics	Department of Statistics
Stanford University	Carnegie Mellon University
Visiting Associate Professor	Visiting Associate Professor
June 20, 1993 - August 15, 1993.	October 26 - 30, 1992
	September 1, 1993 - August 15, 1995

Peer-Reviewed Publications

[1] Williams, Calvin L. (1991). "A Clinical Application of Expert System Methodology" *Journal of Applied Statistics* **18**, 185-201.

[2] Williams, Calvin L. (1991). "Design Expert: An Expert System Application to Clinical Investigations" *Expert Systems with Applications* **2**, 361-371.

[3] Williams, Calvin L. (1993). "Relative Difference in Diversity Between Populations" *Annals of The Institute of Statistical Mathematics* **45**, 2 , 383-399 (with K. Alam).

[4] Williams, Calvin L. (1993). "Success in Baccalaureate Nursing Programs: A Matter of Accomodation?", *Journal of Nursing Education* **32**, 64-70 (with R. B. Hughes, J. Haislett and G. Brown)

[5] Williams, Calvin L. (1993). "Multivariate Goodness-of-Fit Tests Based on Statistically Equivalent Blocks" *Communications in Statistics-Theory and Methods* **22**, 6, 1515-1533 (with K. Alam and R. Abernathy).

[6] Williams, Calvin L. (1995). "A Multivariate Goodness-of-Fit Test For Stochastically Ordered Distributions" *Biometrical Journal* **37**, 8, 945-956, (with K. Alam).

Publications in Progress

[1] Williams, Calvin L. "Selection of Most (Least) Diverse Multinomial Population", (with K. Alam), submitted *Annals of The Institute of Statistical Mathematics.*

[2] Williams, Calvin L. "An Adaptive Procedure for Goodness of fit based on Sample Spacings.", (with K. Alam), submitted *Annals of The Institute of Statistical Mathematics.*

[3] Williams, Calvin L. "Relation Between Levels of Radiation and Frequencies of Cytogenetic Aberrations", (with K. Alam), *in manuscript*

[4] Williams, Calvin L. "Convolution Smoothing of the Product Limit Estimator", *in manuscript*, (with K. B. Kulasekera), submitted *Biometrika.*

[5] Williams, Calvin L. "Comparison of Two Failure Rate Functions", *in manuscript*, (with K. B. Kulasekera and Lal Saxena), submitted *Biometrics.*

[6] Williams, Calvin L. "A Growth Curve Analysis of Effect of Maternal Cocaine Use on Child Growth", (with J. Carson and M. Crane), *in manuscript.*

[7] Williams, Calvin L. "Modeling of Diversity: A Comparison of Measures", (with K. Alam), to appear in *Modeling in the Mathematical Sciences Graduate Curriculum,in manuscript.*

[8] Williams, Calvin L. "Modeling Repeated Measures and Longitudinal Data", (with J. Carson), to appear in *Modeling in the Mathematical Sciences Graduate Curriculum,in manuscript.*

Papers Presented:

Invited Presentations:

- "Comparison of Two Hazard Functions: Crossing Point Estimation",
  Department of Statistics, Stanford University
  July 28, 1993.

- "Multivariate Goodness-of Fit Tests based on Statistically Equivalent Blocks",
  Department of Statistics, Carnegie Mellon University
  October 28, 1992.

- "An Expert System for the Design of Experiments."
  American Statistical Association
  Winter Conference 1987.

- "An Overview of Artificial Intelligence In Biomedical Sciences."
  Department of Biometry, Medical University of South Carolina
  March 1985

- "An Expert System for the Design of Experiments"
  Department of Biometry, Medical University of South Carolina
  February 1986

Contributed Presentations:

- "An Adaptive Procedure for Goodness of fit based on Sample Spacings."
  Joint Meetings of the American Statistical Association, IMS, Biometric Society(ENAR)
  August 8-12, 1993.

- "Statistical Applications in Biomedicine."
  Mu Alpha Theta (MAΘ), College of Charleston
  February 26, 1993.

- "Dissimilarity in Diversity Between Populations."
  The Biometric Society Joint Spring Meetings with IMS and ASA
  March 22-25, 1992.

- "Selection of Most(Least) Diverse Population." *Joint Meetings of American Statistical Association, IMS, Biometric Society(ENAR)*
  August 8-12, 1992.

- "Analysis of Dissimilarity in Diversity." *International Biometric Conference* Hamilton, New Zealand
  December 7-11, 1992.

Book Reviews:

- Spector, Phil (1994). "An Introduction to S and S-Plus"
  Journal of Quality Technology, **26**, No. 4, pp. 322-324.
- Everitt, Brian S. (1994). "A Handbook of Statistical Analyses using S-Plus"
  Journal of Quality Technology, **27**, No. 1, pp. 89-90.
- Venables, W.H and B. D. Ripley (1994). "Modern Applied Statistics with S-Plus"
  Journal of Quality Technology, **29**,No. 1, pp. 116.
- Gibbons, J. D and S. Chakraborti (1992)."Nonparametric Statistical Inference"
  Journal Applied Statistics, **22**, No. 1, pp. 193-194.

Professional Service:

- ASA-NCTM Quantatitive Literacy Team Statistician (1993)
- American Statistical Association Committee on Minorities In Statistics (1991-1993) Committee on Membership (1995-1997)
- American Statistical Association South Carolina Chapter

  President (1993-1994)
  Vice President (1992-1993)
  Secretary-Treasurer (1991-1992)

Consulting Affiliations:

- **1/82 - 5/87** Medical University of South Carolina Department of Biometry
- **5/82 - 5/87** Upjohn Pharmaceutical Company, Biostatistics Unit - 7293
- **10/86 - 5/87** The Citadel - Department of Business Administration
- **8/91 -** Clemson University - Counseling Center
- **7/87 -** Clemson University - College of Education, Special Projects
- **1/93 -** Clemson University - Department of Sociology
- **1/93 -** Clemson University - Department of Nursing

University Service:

- Pi Mu Epsilon Honorary Mathematics Fraternity, Advisor
- Kappa Alpha Psi Fraternity Incorporated, Advisor
- Clemson Career Workshop, Mathematics Consultant
- ProAct Advisor

Professional Societies:

ASA, IMS, IEEE, Biometric Society (ENAR)

Computing Background

Mathematical and Statistical:

Biomedical Programs (BMDP), IMSL Statistical Library, NAG Statistical Library, LINPACK, MINPACK, EISPACK, Statistical Analysis System (SAS), SYSTAT, S-Plus

Computer Languages & Systems Experience

Proficient in: Pascal, C++, Fortran, Basic, LISP
On Systems : IBM, Prime, VAX , Macintosh series and Sun Sparc Stations.