ACADEMIC VITAE
(January, 2012)

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EDUCATION

Ph.D. (Statistics), University of Minnesota, Minnesota, 1986 (Advisor: Donald A. Berry)
M.S. (Statistics), University of Minnesota, Minnesota, 1984
M.S. (Mathematics), New Mexico Highlands University, Las Vegas, New Mexico, 1981
B.S. (Mathematics), National Central University, Taiwan, 1975

RESEARCH INTERESTS

Statistical modeling and analysis for interdisciplinary research which concerns with human and social betterment

PROFESSIONAL SOCIETIES

American Statistical Association
International Chinese Statistical Association

EMPLOYMENT HISTORY

1986 – Present **Department of Mathematical Sciences, University of Nevada, Las Vegas**
Department Chair (July 2006 – June 2009)
Director, Center of Applied Mathematics and Statistics (2 years, began S 2003)
Co-Associate Chair/College Executive Committee (1 year, began F 2000)
Assistant (August 1986)/Associate (July 1991)/Full Professor (July 1996)

1992 – 1993 **Institute and Department of Applied Mathematics**
National Chung-Hsing University, Taichung, Taiwan
(Sabbatical Leave) Visiting Associate Professor

SCHOLARLY ACTIVITY

Research Grants and Contracts Completed

Co-PI (with Jeffery Q. Shen and Roy Ogawa) for the project "Development of an Interdisciplinary Bioinformatics Research/Education Program at UNLV," funded by the UNLV 2004-05 Planning Initiative Awards, August 2004 – December 2005, $30,000.

Principal Investigator for the project "Statistical Analysis of Episodic Patterns of Volcanism: Implications for Volcanic Hazard Assessment at Yucca Mountain, Nevada," funded by a contract from the Agency for Nuclear Projects, State of Nevada, July 2003 – June 2004, $40,000.

Principal Investigator for the project "Statistical Analysis of Episodic Patterns of Volcanism: Implications for Volcanic Hazard Assessment at Yucca Mountain, Nevada," funded by a contract from the Agency for Nuclear Projects, State of Nevada, July 2002 – June 2003, $34,000.

Principal Investigator for the project "Statistical Analysis of Episodic Patterns of Volcanism: Implications for Volcanic Hazard Assessment at Yucca Mountain, Nevada," funded by a contract from the Agency for Nuclear Projects, State of Nevada, January 2002 – June 2002, $17,000.

Statistical Consultant for the project "The Effects of Substance Abuse on Child Welfare Families and Children" and "Levels of Intervention with Positive Toxicology Newborns and Related Family Outcomes" funded by State of Nevada Division of Children and Family Services, July 2000 – June 2001, $50,000. (PI: An-Pyng Sun)

Principal Investigator for the project "A Report Summarizes the Statistical Modeling of Nuclear Waste Repository Site," funded by a grant from the Nuclear Waste Project Office, State of Nevada, February 1996 – December 1996, $15,000.

Principal Investigator for the project "Sensitivity Analysis on Smith's AMRV Model," funded by a grant from the Nuclear Waste Project Office, State of Nevada, October 1994 – September 1995, $35,000.

Principal Investigator for the project "A Compound Power-Law Model for Volcanic Eruptions: Implications for Risk Assessment of Volcanism at Proposed Nuclear Waste Repository at Yucca Mountain, Nevada," funded by a grant from the Nuclear Waste Project Office, State of Nevada, October 1993 – September 1994, $35,000.

Principal Investigator for the project "Sensitivity in Risk Assessment for the Yucca Mountain High-Level Nuclear Waste Repository Site: The Model and the Data," funded by a grant from the Nuclear Waste Project Office, State of Nevada, October 1992 – September 1993, $30,000.

Principal Investigator for the project "Risk Assessment for the Yucca Mountain High-Level Nuclear Waste Repository Site," funded by a grant from the Nuclear Waste Project Office, State of Nevada, October 1991 – September 1992, $30,000.

Principal Investigator for the project "Time Trend Analysis of Basaltic Volcanism near the Yucca Mountain Site," funded by a grant from the Nuclear Waste Project Office, State of Nevada, October 1991 – September 1992, $25,000.

Principal Investigator for the project "The Mathematical Model of Volcanism at Yucca Mountain," funded by a grant from the Nuclear Waste Project Office, State of Nevada, October 1989 – September 1990, $20,000.

Research Grants and Contracts Unfunded

Co-PI for the project "Infrastructure Development for a Bioinformatics Program," submitted (November 2007) to UNLV for $99,890.

Co-PI (with S. Qian, Y. Jiang, J. Q. Shen, and M. Yang at UNLV, and H. M. Gash, B. Freeman, and Y. Ma at NVCI) for the project "BBSI – Nevada Bioengineering and Bioinformatics Summer Institute" submitted (November 29, 2005) to NSF for $431,749, January 1, 2006 – December 31, 2008.

Principal Investigator for the project "Fingerprinting International Decade Volcanoes," submitted to NASA, 03/01/04 – 02/28/05, $16,000.

Principal Investigator for the project "Fingerprinting and Time-Series Models for International Decade Volcanoes," submitted to NSF EPSCoR, 01/01/04 – 12/31/04, $20,000.

Principal Investigator for the project "3-D Poisson Process for Volcanic Hazard Assessment," submitted to NSF, 01/01/96 – 12/31/97, $79,512.

Principal Investigator for the project "Studies Determining the Usefulness of a Compound Weibull Process Model in Volcanology," submitted to NSF, 07/01/95 – 06/30/98, $55,905.

Work In Progress

Forward and backward tests for change-points detection problems.

Empirical recurrence rates and ARFIMA models for forecasting bank failures.

A new powerful test for quality control and reliability.

Articles in Referred Journals

Leyngold, M.M., Stutman, R.L., Khiabani, K.T., Shah, H., Fong, E., Ho, C.-H, and Zamboni, W.A., 2012. Contributing variables to post mastectomy tissue expander infection, The Breast Journal, DOI: 10.1111/j.1524-4741.2012.01253.x.

Ho, C.-H, 2010. Hazard area and recurrence rate time series for determining the probability of volcanic disruption of the proposed high-level radioactive waste repository at Yucca Mountain, Nevada, USA, Bulletin of Volcanology, 72: 205-219.

Ho, C.-H., 2008. Empirical recurrence rate time series for volcanism: Application to Avachinsky volcano, Russia, Journal of Volcanology and Geothermal Research, 173: 15-25.

Ho, C.-H., Smith, E.I., and Keenan, D. 2006. Hazard area and probability of volcanic disruption of the proposed high-level radioactive waste repository at Yucca Mountain, Nevada, USA, Bulletin of Volcanology, 69: 117-123.

Sun, A.P., Maurer, A., and Ho, C.-H., 2003. Predictors of College Students' Binge Drinking: Experience of an Urban University in the Southwest, Alcoholism Treatment Quarterly, 21 (4): 17-36.

Chen, L., Cha, J., and Ho, C.–H., 2002. A Three-Point-Translation Technique for Root Coverage: With Four–Year Follow-Up, Dentistry Today, 21(10):112-115.

Murray, K.D., Ho, C.-H., Hsia, J.Y.J., and Little, A.G., 2002. The Influence of Pulmonary Staple Line Reinforcement on Air Leaks, Chest, 122:2146-2149.

Li, X., Ho, C.-H., and Chen, C.S., 2002. Computational Test of Approximation of Functions and Their Derivatives by Radial Basis Functions, Neural, Parallel, and Scientific Computation, 10:25-46.

Li, X., Ho, C.-H., and Chen, C.S., 2001. Construction of Radial Basis Functions for Approximation, Advances in Computational Engineering & Sciences, Eds: Atluri, S.N., Nishioka, T., and Kikuchi, M. Paper #76.

Karch, S.B., Stephens, B., and Ho, C.-H., 1999. Methamphetamine Related Deaths in San Francisco: Demographic, Pathologic, and Toxicology Profiles, Journal of Forensic Sciences, 44:359-368.

Ho, C.-H. 1998. Repeated Significance Tests on Accumulating Data of Repairable Systems, Communications in Statistics - Theory and Methods, 27:1181-1200.

Ho, C.-H., and Smith, E.I. 1998. A Spatial-Temporal/3-D Model for Volcanic Hazard Assessment: Application to the Yucca Mountain Region, Nevada, Mathematical Geology, 30:497-510.

Karch, S.B., Stephens, B., and Ho, C.-H., 1998. Relating Cocaine Blood Concentrations to Toxicity - an Autopsy Study of 99 Cases, Journal of Forensic Sciences, 43:41-45.

Karch, S. B., Graff, J., Young, S., and Ho, C.-H., 1998. Response Times and Outcomes for Cardiac Arrests in Las Vegas Casinos, American Journal of Emergency Medicine, 16:249-253.

Ho, C.-H., and Smith, E.I. 1997. Volcanic Hazard Assessment Incorporating Expert Knowledge: Application to the Yucca Mountain Region, Nevada, U.S.A., Mathematical Geology, 29:615-627.

Ho, C.-H. 1996. Volcanic Time Trend Analysis, Journal of Volcanology and Geothermal Research, 74: 171-177.

Karch, S.B., Lewis, T., Young, S., Hales, D., and Ho, C.-H. 1996. Field Incubation of Trauma Patients: Complications, Indications, and Outcomes, American Journal of Emergency Medicine, 14: 617-619.

Ho, C.-H. 1995. A Simulation Study of a Change-Point Poisson Process Based on Two Well-known Test Statistics, in Niederreiter H. and P.J.-S. Shiue (editors), Monte Carlo and Quasi-Monte Carlo Method in Scientific Computing, Springer, Lecture Notes in Statistics, 106: 228-238.

Karch, S.B., Lewis, T., Young, S., and Ho, C.-H. 1995. Surgical Delays and Outcomes in patients Treated with Pneumatic Anti-Shock Garments: A Population-Based Study, American Journal of Emergency Medicine, 13:401-404.

Ho, C.-H. 1995. Sensitivity in Volcanic Hazard Assessment for the Yucca Mountain High-Level Nuclear Waste Repository Site: The Model and the Data, Mathematical Geology, 27:239-258.

Ho, C.-H. 1993. Forward and Backward Tests for an Abrupt Change in the Intensity of a Poisson Process, Journal of Statistical Computation and Simulation, 48:245-252.

Tate, J.S., and Ho, C.-H. 1993. The Use of the Inspiratory Pause "Hold" in Increasing Oxygenation in Post Surgical Patients, Journal of the National Medical Association, 85:598-600.

Ho, C.-H. 1992. Statistical Control Chart for Regime Identification in Volcanic Time Series, Mathematical Geology, 24:775-787.

Ho, C.-H. 1992. Risk Assessment for the Yucca Mountain High-Level Nuclear Waste Repository Site: Estimation of Volcanic Disruption, Mathematical Geology, 24: 347-364.

Ho, C.-H. 1992. Predictions of Volcanic Eruptions at Mt. Vesuvius, Italy, Journal of Geodynamics, 15: 13-18.

Ho, C.-H. 1991. Stopping Rules for Clinical Trials Implicitly Incorporating Safety Information, Biometrical Journal, 33:817-827.

Tippie, D., Deacon, J.E., and Ho, C.-H. 1991. Effects of Convict Cichlids on Growth and Recruitment of White River Springfish, Great Basin Naturalist, 51:256-260.

Ho, C.-H. 1991. Some Frequentist Properties of a Bayesian Method in Clinical Trials, Biometrical Journal, 33:735-740.

Ho, C.-H. 1991. Time Trend Analysis of Basaltic Volcanism near the Yucca Mountain Site, Journal of Volcanology and Geothermal Research, 46:61-72.

Ho, C.-H., Smith, E.I., Feuerbach, D.L., and Naumann, T.R. 1991. Eruptive Probability Calculation for the Yucca Mountain Site, U.S.A.: Statistical Estimation of Recurrence Rates, Bulletin of Volcanology, 54:50-56.

Ho, C.-H. 1991. Nonhomogeneous Poisson Model for Volcanic Eruptions, Mathematical Geology, 23: 167-173.

Little, A.G., Wu, H.-S., Ferguson, M.K., Ho, C.-H., Bowers, V.D., Segalin, A., and Staszek, V.M. 1990. Preoperative Blood Transfusion Adversely Affects Prognosis of Patients with Stage I Non-Small-Cell Lung Cancer, American Journal of Surgery, 160:630-633.

Gentilello, L.M., Cortes, V., Mougaes, S., Viamonte, M., Malinin, T.L., Ho, C.-H., and Gomez, G.A. 1990. Continuous Arteriovenous Rewarming: Experimental Results and Thermodynamic Model Simulation of Treatment for Hypothermia, Journal of Trauma, 30:1436-1449.

Ho, C.-H. 1990. Bayesian Analysis of Volcanic Eruptions, Journal of Volcanology and Geothermal Research, 43:91-98.

Berry, D.A. and Ho, C.-H. 1988. One-Sided Sequential Stopping Boundaries for Clinical Trials: A Decision-Theoretic Approach, Biometrics, 44:219-227.

Sponsored Research Reports

“Hazard area and probability of volcanic disruption of the proposed high-level radioactive waste repository at Yucca Mountain,” annual report to the Agency for Nuclear Projects, State of Nevada (September 2004).

“Statistical Analysis of Episodic Patterns of Volcanism: Implications for Volcanic Hazard Assessment at Yucca Mountain, Nevada,” annual report to the Agency for Nuclear Projects, State of Nevada (August 2003).

“Statistical Analysis of Episodic Patterns of Volcanism: Implications for Volcanic Hazard Assessment at Yucca Mountain, Nevada,” annual report to the Agency for Nuclear Projects, State of Nevada (June 2002).

“A Report Summarizes the Statistical Modeling of Volcanic Risk Studies at the Yucca Mountain Nuclear Waste Repository Site,” three quarterly progress reports to the Nuclear Waste Project Office, State of Nevada (1996).

“Sensitivity Analysis on Smith's AMRV Model," three quarterly progress reports and a final report to the Nuclear Waste Project Office, State of Nevada (1995).

"A Compound Power-Law Model for Volcanic Eruptions: Implication for Risk Assessment of Volcanism at the Proposed Nuclear Waste Repository at Yucca Mountain, Nevada," three quarterly progress reports and a final report to the Nuclear Waste Project Office, State of Nevada (1994).

"Sensitivity in Risk Assessment for the Yucca Mountain High-Level Nuclear Waste Repository Site: The Model and the Data," three quarterly progress reports and a final report to the Nuclear Waste Project Office, State of Nevada (1993).

"Risk Assessment for the Yucca Mountain High-Level Nuclear Waste Repository Site," three quarterly progress reports and a final report to the Nuclear Waste Project Office, State of Nevada (1992).

"Time Trend Analysis of Basaltic Volcanism near the Yucca Mountain Site," three quarterly progress reports and a final report to the Nuclear Waste Project Office, State of Nevada (1991).

"The Mathematical Model for Volcanism at Yucca Mountain," three quarterly progress reports and a final report to the Nuclear Waste Project Office, State of Nevada (1990).

Professional Papers Presented

"A Smoothing Technique for Point Process," presented at the 8th ICSA International Conference, held in Guangzhou, China, December 19 - 22, 2010.

"A Nonparametric Approach to Forecast a System of Poisson Type in Geosciences," presented at the 33rd International Geological Congress, held in Oslo, Norway, August 6-14, 2008.

"A method for estimating intensity of a Poisson process," poster presentation (joint with S. Gunti and H. –W. Cheng) at 2007 Joint Statistical Meetings, held in Salt Lake City, Utah, July 29 - August 2, 2007.

"ARIMA models for forecasting Poisson process observations: reliability and quality control," presented at the 2007 Taipei International Statistical Symposium and ICSA International Conference, held in Taipei, Taiwan, June 25-27, 2007.

"Empirical recurrence rate time series and hazard area for probability of volcanic disruption of the proposed high-level radioactive waste repository at Yucca Mountain, Nevada, USA," invited talk at Nanjing University of Technology, Nanjing, China, May 28, 2007.

"An ARIMA-model-based approach with hazard area for the probability of volcanic disruption of the proposed high-level radioactive waste repository at Yucca Mountain, Nevada, USA," presented at the the 15th International Conference of Forum for interdisciplinary mathematics on interdisciplinary mathematical & statistical techniques, held in Shanghai, China, May 20-23, 2007.

"Hazard area and probability of volcanic disruption of the proposed high-level radioactive waste repository at Yucca Mountain, Nevada, USA," invited presentation at the NV-ASA Fall Symposium, held at UNLV, November 19, 2005.

"Volcanism at Yucca Mountain," presented at State of Nevada Yucca Mountain Project Expert Conference, held in Washington D.C., December 10-12, 2003.

"A Decision-Theoretic Approach for the Performance Assessment of the Yucca Mountain Nuclear Waste Repository Site, U.S.A.," presented at the International Conference on Information Technology and Disaster Management, held in London, England, September 21 - 24, 1998.

"Forward & Backward Control Chart for Repairable Systems," presented at the 4th ICSA Statistical Conference, held at Yunnan University, Kunming, China, August 19 - 21, 1998.

"Statistical Methods for Volcanic Time-Trend," invited presentation at Colima Volcano: 6th International Meeting held in Colima, Mexico, January 26 - 31, 1998.

“A Spatial-Temporal/3-D Model for Volcanic Hazard Assessment,” presented at the 97th International Association of Volcanology and Chemistry of the Earth’s Interior Congress held in Puerta Vallarta, Mexico, January 19 - 24, 1997.

“Volcanic Hazard Assessment Incorporating Multiple-Expert Knowledge (Ho, C.-H., Smith, E.I., and G. Yogodzinski),” presented at the 30th International Geological Congress, held in Beijing, China, August 8 - 14, 1996.

“A 3-D Volcanic Hazard/Risk Assessment Model: Application to the Yucca Mountain Region, Nevada, U.S.A. (Ho, C.-H., and Smith, E.I.),” presented at the 30th International Geological Congress, held in Beijing, China, August 4 - 14, 1996.

“Volcanic Hazard Analysis at the Yucca Mountain Nuclear Waste Repository Site,” invited presentation at the DOE/Geomatrix workshop on Alternative Hazard Models for the Probabilistic Volcanic Hazard Analysis (PVHA) project held on March 30 - 31, 1995 at Las Vegas, NV.

"Repeated Significance Tests on Accumulating Data of Repairable Systems," presented at the 1994 Joint Statistical Meetings held in Toronto, Canada, August 13 - 18, 1994.

"A Simulation Study of a Change-Point Poisson Process Based on Two Well-known Test Statistics," presented at the conference on Monte Carlo and Quasi-Monte Carlo Methods in Scientific Computing, held at the University of Nevada, Las Vegas, June 23 - 25, 1994.

"The Role of the Bayesian Prior in Volcanic Risk Calculations at the Yucca Mountain Nuclear Waste Repository Site, U.S.A.," presented at the 2nd Annual Meeting of the International Society for Bayesian Analysis held in Alicante, Spain, June 10 - 11, 1994.

"Volcanism at the Yucca Mountain Nuclear Waste Repository Site, U.S.A.: A Decision Analysis Perspective," presented at the 5th Valencia International Meeting on Bayesian Statistics held in Alicante, Spain, June 5 - 9, 1994.

“Alternative Geologic Models: Their Significance with Respect to Calculation of Volcanic Hazard at Yucca Mountain,” Invited presentation (with E.I. Smith) in the meeting of the United States Nuclear Waste Technical Review Board’s Panel on structural geology and geo-engineering, held on March 8 - 9, 1994 at San Francisco.

“Sensitivity in Risk Assessment for the Yucca Mountain High-Level Nuclear Waste Repository Site: The Model and the Data,” invited speaker at the Fourth International Meeting and A Decade Volcano Workshop held in Colima, Mexico, January 24 - 28, 1994.

“Sensitivity in Risk Assessment for the Yucca Mountain High-Level Nuclear Waste Repository Site,” presented, as an invited discussant, in the meeting of the National Academy of Sciences’ Committee on the Technical Bases for Yucca Mountain Standards, held on November 9 - 10, 1993 in Las Vegas, NV.

“Comments on the Preliminary Draft of Los Alamos National Laboratory on the Status of Volcanic Hazard Studies for the Yucca Mountain Site Characterization Project,” presented at the meeting of DOE-NRC Technical Exchange on Volcanism Studies held in Las Vegas on June 9, 1993.

"Risk Assessment for the Yucca Mountain High-Level Nuclear Waste Repository Site: Estimation of Volcanic Disruption," presented at the U.S. Technical Review Board's Panel on Structural Geology and Geo-engineering in Las Vegas on September 14 - 15, 1992.

"Volcanic Risk Assessment for the Yucca Mountain High-Level Nuclear Waste Repository Site," presented at the 29th Geological Congress, held in Kyoto, Japan, August 25 - September 4, 1992.

"Application of Bayesian Concepts to Clinical Research," invited speaker for Hoechst-Roussel Pharmaceuticals Inc., April 16, 1992.

"Prediction of Explosive Eruptions at Volcan de Colima, Mexico," invited speaker at the 2nd International Reunion on Volcanology held in Colima, Mexico, January 20 - 24, 1992.

"Prediction of Volcanic Eruptions: An Application to the Yucca Mountain Site, U.S.A.," presented at the International Conference on Active Volcanoes and Risk Mitigation, held in Napoli, Italy, August 27 - September 1, 1991.

"Statistical Analysis of Basaltic Volcanism Near the Yucca Mountain Site," presented to the United States Nuclear Waste Technical Review Board at the March 1, 1991 meeting on volcanism in Tucson.

"Volcanic Risk Assessment Studies for the Proposed High-Level Radioactive Waste Repository at Yucca Mountain, Nevada, USA (Smith, E.I., Feuerbach, D.L., Naumann, T.R., and Ho, C.-H.)," poster presentation at the International Conference on Active Volcanoes and Risk Mitigation, held in Napoli, Italy, August 27 - September 1, 1991.

"Group Sequential Clinical Trials Based on the Posterior Probabilities: The Role of the Bayesian Prior," at the Annual Meeting of American Statistical Association, held in New Orleans, LA, August 21 - 25, 1988.

"An Asymmetric Testing Procedure for Clinical Trials," presented at 1986 International Statistical Symposium, held in Taipei, Republic of China.

TEACHING ACTIVITIES

Student Support via My Research Grants

Graduate: David Lerman, Andy Tsang, Heng Wei Cheng

Undergraduate: Andy Tsang, Elizabeth Freeman, Scott MacDonald

Thesis Advising Completed

Master: Hui Wang, Jenny Liu, Sandhya Gunti, Heng Wei Cheng, Wandong Fu, Qing Chen, Siqi Tan, Fangjin Cui, Annabelle Starks, and Blessed Quansah

Courses Taught at the Department of Mathematical Sciences, UNLV

Statistics: Introductory Statistics, Statistical Methods I & II, Statistics for Scientists I & II, Applied Statistics for Engineers, Probability Theory, Advanced Mathematical Statistics, Applied Regression Analysis, Nonparametric Statistics, Experimental Design, Multivariate Statistical Methods, Advanced Mathematical Statistics, Decision Theory, Analysis of Variance, Regression & Multivariate Analysis, Techniques of Statistical Consultation, Statistical Modeling & Computation. Point process - Modeling & Application

Mathematics: Algebra, Trigonometry, Finite Mathematics, Calculus

SERVICE ACTIVITIES

Significant Professional Services

Principal investigator for the Yucca Mountain project, funded by the Agency for Nuclear Projects, State of Nevada, October 1989 - June 2004. (In the belief that a decision based on up-to-date information and modern analytical techniques are preferable to one based on less sophisticated analysis. The challenge is to better address the question: Does the possibility of a volcanic eruption pose a great enough risk to the public to disqualify Yucca Mountain as a nuclear waste repository?) I pursue this work with the conviction that I can actually make a contribution in the site characterization study whose solution is vital to the welfare of the State of Nevada and the nation.

Reviewed (October 18, 1996) DOE Probabilistic Volcanic Hazard Analysis Report.

I testified (August 1, 1995) in the district court as witness (for statistical analysis) on behalf of the State of Nevada in a criminal action prosecuted by the state.

I was invited to participate in the meeting (held on November 9 - 10, 1993) of the National Academy of Sciences' Committee on the Technical Bases for Yucca Mountain Standards. I offered scientific opinions on some important elements that might form the technical bases for a site-specific standard to protect public health and safety.

Conducted a four-day workshop of Statistical Analysis System (SAS) at the National Chung-Hsing University, Taiwan (April 23, 28, 30, and May 3, 1993).

I was invited to participate in the 2nd International Meeting and the 4th International Meeting on Volcanology held on January 20 - 24, 1992 and on January 24 - 28, 1994 respectively. Both meetings were held at Colima, Mexico. I was motivated by the potential value of my work to people who live under threat from the world's restless volcanoes. My contribution to the volcanic research program and risk mitigation plans was acknowledged in a certificate of recognition awarded by the Chief Committee Organizer.

I was invited to present the idea and application of Bayesian concepts to clinical research by Hoechst-Roussel Pharmaceuticals Inc. (April 16, 1992). They were interested in the methodologies that I demonstrated in several of my published papers in the area of clinical trials.

Participated in the cancer and biomedical joint research with faculty of the University of Nevada School of Medicine to produce advanced medical procedures (Murry Brown was saved by the revolutionary blood-warming technique developed by my coauthors, L. Gentilello et al., and supported by my statistical analysis). It demonstrates that my research and publication show a scholarship concerned with human and social betterment.

Reviewed Los Alamos National Laboratory Study Plan 8.3.1.8.1.1, Probability of Magmatic Disruption of the Repository.

Referee for NSF, Biometrics, Journal of American Statistical Association, International Journal of Earth Sciences, and Journal of Volcanology and Geothermal Research.

Institutional Committee

University

Science and Engineering Facility Programming Committee (2000 - 2001)

Chairman of the Faculty Senate Appeals Committee (1 year, began Fall 1996)

University Research Grants and Fellowships Committee (3 years, began Fall 1996)

Faculty Senate Appeals Committee (began Fall 1994, member for 2 years, chair for 1 year and wrote new Committee Bylaws)

Faculty Senate Special Hearing Committee (1 year, began Fall 1994)

Graduate College Faculty Representative/member of several MS/Ph.D. Examination Committees.

College

Executive Committee (member, August 2000 - June 2001; July 2006 - June 2009)

Peer Review Committee (3 years, began Fall 1998)

Department

Department Chair (July 2006 - June 2009)

Executive Committee (member, May 2005 - June 2009)

Director, Center for Applied Statistics and statistical Advising (2 years, began Spring 2003)

Ph.D. Proposal Committee (Fall 2002)

Co-Associate Chairman (August 2000 - June 2001)

Graduate (2 years, began Fall 1998)

Personnel/Promotion and Tenure (Fall 1989 – Spring 1998 and Fall 2002 - Spring 2004)

Merit (Fall 1993, Spring 1994, Spring 1997, and Spring 2009 - Spring 2011)

Advising (2 years, began Spring 1987)

Search Committee, Applied Statistics/Applied Analysis
(Chair, in 1996, 1998, 2004, and 2005; Member, 2003)

Proposed (with R. Dalpatadu) and successfully obtained a minor in actuarial science.

Developed a minor in statistics for the Math Department.

Restructured the statistical program (MAT 461, 462; STA 411, 412, 467, 491, 492).

Developed four new statistics graduate courses (STA 693, 695, 713, and 715) in 1986, and initiated the courses in 1989.

STATISTICAL CONSULTANT

I have acted as an in-house statistical consultant to different departments at UNLV, UN School of Medicine, and various organizations in Las Vegas since 1986.

A Simple Note: Statistical Consulting in a University

"Late on Friday afternoon (after 2:30 p.m.), I was working in my room struggling with a tricky optimization problem, namely how to position my chair and an open drawer of my desk to achieve the most comfortable position in which to rest while scanning The Annals of Statistics. A knock on my door disturbed my intense concentration (this is not a euphemism for it woke me up!), and into the room entered a person whom I had never met before, but who proceeded to inform me that he had a "small problem" with which he needed some statistical help. Ever eager to please I asked him to explain his problem, and was almost at once bombarded with words and phrases such as "visual cortex", "arrays of implanted electrodes," "phosphenes," "ghosts," etc., etc. I eventually managed to stop the flow and reminded my client that I was a statistician not a physiologist and that he would need to explain his problems using language I could understand. Clearly this came as a surprise, as if the fact that a phosphene is a spot of light seen by a blind person with an array of electrodes implanted onto the visual cortex, when these electrodes are stimulated by radio waves across the skull, was self evident! Nevertheless, I persevered and eventually began to understand what appeared to be a very interesting problem, and we began to discuss possible approaches to its solution. All of these involved a considerable amount of work on my part and I estimated that it would take me at least 3 months before I would have any answers. "Oh that's no use" was the reply, "I need the results in the next 2 weeks so that I can finish writing up my M.D. thesis!" (I later discovered that the data had taken 5 years to collect and yes, the visit to me was the first to a statistician!)"

The quoted story was published by E.S. Everitt in Statistical Science, 1987, vol. 2, No. 2, p 107-134. It shows that successful consulting generally requires both statistical skills and interpersonal skills. The statistician's contribution goes beyond just cranking out numbers. Statistical consulting is defined as the collaboration of a statistician with another professional for the purpose of devising solutions to research problems. Statisticians in a university often have a heavy consulting load and a strenuous teaching schedule. Clients come to a first consultation with varied expectations about what statistical consultants do. The most common roles that consultants are expected to assume are those of helper, leader, data-blesser, collaborator, and teacher. These roles and others present several challenges.

This anecdote emphasizes the significant service I provide to helping each project through to its completion. Each of my clients (or collaborators) and I pool our talents and expertise to produce research better than that which would have occurred in the absence of statistical consultation. My involvement with several projects in cooperation with UNLV's biology department, geology department, and UN School of Medicine characterizes my consultant role at UNLV as unique in scope, important, and valuable.

Another note: A Chinese essay written for my high school students quite a long time ago

Below is a Chinese essay that I wrote that elaborates my teaching philosophy. It was published in the school bulletin of a senior high school where I taught mathematics for three years, before I headed to the USA for advanced degrees.

有一個例外，給每一個你

何致祥

「帶兩顆漂亮的大草莓，一起到陽光下走走，看看閒書。」當再看到這些句子，又教人孤零零地想從前。美嗎？是的，人說：「曾經是是，便永遠是！」爲什麼？因爲那是屬於夢的年華裏的故事。它是生活，只是著了想像的色彩，所以它美。

「青苔古木蕭蕭，蒼雲秋水迢迢，紅葉山齋小小，有誰會到，探梅人過溪橋。」鄭光祖的天淨沙，你喜歡嗎？走入他的境界沒？當然，你有想像力，所以你一定會喜歡！它的美，其實就是你的想像的美。

有人樂山，有人樂水，有人會醉在音樂的旋律裏。我說：「那不都是大自然和音符的美，而是接受者心靈的美。那完全是用心眼——想像去建造起來的一個屬於你自己喜歡的模式的華麗宮殿。一走進，你就融入。所以，想像——這美的泉源，你我都沒能否認。」

終於我敢說：

你喜歡生活；

你熱愛文學；

當然你也能樂意地接受數學。

數學裏的每一個定義、公設、定理，就像組成一個繽紛社會的小個體，每一個都是躍動著的生命，也分別牽動著整個體系。其出現的形態，有時單純得叫人不屑一顧，就像橫躺在大街小巷上的「斑馬線」，平凡得引不起些許美的聯想。其實數學之於生活，就如斑馬線之於行人，只是數學多了個「被大多數人在生活中默默的肯定；又在意識裏大大地否定的命運」。而中學生却是掌握數學這一悲慘命運的主腦。誰的錯？且讓我們看一看。打開數學筆記：

第一章 斑馬線

§1

定義1 斑馬：產於非洲大陸，形似馬，身上有黑白條紋。

定義2 斑馬線：街道上標以黑白相間的條紋，行人優先穿越。

假如明天考數學，則你將如何準備這一章：

型一：斑馬線？那該從家裏出發，出了廟口，轉進愛三路，就是一條斑馬線。繼續往前走到大立行，又是一條。右轉到彰化銀行，外加兩條……。走遍了大街小巷，茫茫然地闖了一整天，疲疲憊憊地記了數百條的斑馬線，終於以爲明天老師一考到孝二路有幾條斑馬線？望海巷有沒有斑馬線？……你會十拿九穩。

型二：「斑馬線？奇怪！爲什麼不叫老虎線、狼狗線？……」這時候妳想到了很多很多動物。後來你記起了曾經在電視裏的一個畫面：那是非洲的一片大草原。空中一架直升機，螺旋槳嘎嘎地作響。只見原上的飛禽走獸四方奔竄。噢！美極了！終於你知道爲什麼？彷彿當時斑馬的飛躍你還記得——那美麗顯眼的黑白斑紋。

「我沒騎過斑馬，也沒拍過斑馬的馬屁。嘿！不知斑馬全身的毛剃光以後，是不是還有斑紋？還是不是叫斑馬？」

這時候，你又想到了曾經吃了很多很多的豬肉。豬，好像也有白毛豬、黑毛豬、花豬，就是從來沒有看到有人賣黑皮、白皮、花皮的豬肉。斑馬可能是長出的毛色不一樣吧！爲了再進一步確定，你又想起了老祖母的一頭白髮，和自己的黑髮。

嗨！原來就沒有黑頭皮、白頭皮之分啊！

後來你又有了這樣的懷疑：在萬千隻的斑馬裏，有沒有兩隻斑馬身上的斑紋一模一樣呢？……。

Another note: A Chinese essay written for my high school students quite a long time ago (cont.)

這是兩種型態的讀書法。一種是奮力地追求許許多多的「什麼？」另一種則是一連串「爲什麼？」的探討。對於讀數學，大多數人屬於前者，習慣地只求「什麼？」不問「爲什麼？」倒金字塔式的架構，徒勞而無功。試問：「台北中山北路有幾條斑馬線？」對這樣的讀書法有何意義？「斑馬線可以搬到電桿上。」你又知爲什麼？那你是完全沒掌握數學是一支筆、一張紙、一個腦袋就可以遨遊的這一精神和特質了。

每一個人，都能接受數學，也都會喜歡數學。因爲每一個人都有想像力。而數學就需要你的想像力——只要你肯。然而它又非單一泛泛無際的想像，而是有著無形的層次，那就是推理。有了推理，想像就成了思考；思考的想像，更接近眞實。眞實得像是在礪鍊一個人；像是創造一個完美的人生。因爲，想像如果有了數學上這種思考的層次以後，那麼，我們就可以更肯定：「沒有想像，就沒有進步。想像是面對問題及解決問題的最有力途徑！」

一偉大建築能夠成功地表現出建築師的理想，那是建築師的成功，也是想像的成功。那是想像經過分析、組織，最後架構出完整、美麗的圖案。假如你承認，人是理性的，生來就得面對重重問題，你就得肯定數學；假如你讚同：生命是創造的，人是需要考驗和磨練的，那你就會讚同數學。也只有這樣，數學才會是一個伴侶，一個良師。

王國維人間詞話裏的讀書三境：「古今成大事業，大學問者，必經過三種境界：『昨夜西風凋碧樹，獨上高樓，望盡天涯路』（晏殊）此第一境也。『衣帶漸寬終不悔，爲伊消得人憔悴』（柳永）此第二境也。『衆裏尋他千百度，驀然回首，那人却在燈火闌珊處』（辛棄疾）此第三境也。」我個人覺得數學境界和這個很類似；除非你是無所求的無能者，否則你該有高遠的理想，該有一段爲學作問的歷程，一個極爲刻苦的功夫、一個深深沈沈的自我惕勵、一個完全的孤獨！而數學給人的第一個境界，也就是這種孤獨，孤獨得讓你直覺得時間的殘忍。然而這只是剎那，事實上，這時你已超越了神所不能掌握的時間。那就是唐君毅先生的這段話：「在群衆中，你生活於當時的時代，在孤獨中，你生活於所有的時代，孤獨使你無限！」

思考的形態必是孤獨的。一個完全的思考，當然無限，而數學的思考大部來自「解題」。而解題乍看之下，似乎是種單純的智力考驗。其實，它還得有兩個極爲重要的因素，那就是「意志」和「情感」。而其中「意志」就是數學大大別於其它科類，可大書特書的一大特色；更是數學眞實的一大明證。從小我們就受了「人貴立志，持之以恒」的明訓，也知毅力之於人就如根之於樹：而這種意志力，表現在克服數學問題上的重要性，與實際人生並無二致。解題，就是一場堅韌的戰鬥。你說它像不像生活，值不值得你爲之憔悴？有「智力」和「意志」，當然就有情感。因爲，廣義的情感已經包含了智力和意志，只是它來得更可以筆墨而已。解題，實是情感的一種激盪，而這情感的牽動正是數學美的地方，也是貫穿數學第一、第二、第三境界的要素。

你是否曾經把一整個清寧的早晨，歸給一題解不開的數學？

你是否曾經下過這樣一個決心：此題不解，此心不休？

你是否曾經爲一個美麗的錯誤而拍案？

你是否曾經爲一個頓悟而雀躍？

情感是可培育的，生命是需要充沛的情感來書寫的。任何東西注入了情感都是美的。我們說：

微笑是美，

沈思是美，

當然

數學也是美。

我們用不著說它是科學中的帝王，世界的語言；我們只需說它像極人生。研讀數學，就像是眞正走進了哲學的人生。