

F. Benjamin Zhan, Ph.D.

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Research and Teaching Interests

Geographic Information Science, Spatial Analysis, Public Health and Spatial Epidemiology, Transportation and Spatial Economics, Quantitative Methods

Education

- 1991-94 **Ph.D.** in Geography, University at Buffalo, The State University of New York, USA
(Major advisor: David M. Mark)
- 1987-89 **M.Sc.** in GIS, Geo-Information Sciences, International Institute for Aerospace Survey and Earth Sciences (ITC), Enschede, The Netherlands
- 1979-83 **B.Eng.** in Surveying Engineering, Wuhan Technical University of Surveying and Mapping (WTUSM), Wuhan, China

Employment History

- 1999- Associate Professor of Geography with tenure, Southwest Texas State University (SWT)
- 1995-99 Assistant Professor of Geography, SWT
- 1994-95 Post-Doctoral Research Fellow, Management Science Program, School of Business, The University of Tennessee, USA
- 1991-94 Research Assistant, National Center for Geographic Information and Analysis (NCGIA), University at Buffalo, The State University of New York, USA
- 1989-91 Research Associate, Center for Computer Graphics and Mapping, Delft University of Technology, The Netherlands
- 1987-89 Graduate Student on Fellowship, ITC, The Netherlands
- 1983-87 Full Time Instructor, Wuhan Technical University of Surveying and Mapping (WTUSM), Wuhan, China

Courses Taught at Southwest Texas State University

Course No.	Course Name	Course No.	Course Name
GEO2427	Management and Implementation of GIS	GEO3310	Urban Geography
GEO4336	Transportation Systems	GEO4338	Land Use Planning
GEO4426	Advanced GIS I	GEO4427	Advanced GIS II
GEO5336	Transportation Systems	GEO5418	Geographic Information Systems
GEO7301	Advanced Quantitative Methods		

Current and Former Graduate Students

Graduate supervision in progress (as major professor):

Doctoral student(s): Xuwei Chen,

Master's students: Jon Meade, Ted Brown, Rodney Organ

Completed doctoral degree(s) supervised (as major professor)

Xinnong Zhou, "Geographic Concentrations of Lung Cancer Mortality in Texas and Their Relationships to Socioeconomic and Environmental Conditions," November, 2000.

Completed master's degrees supervised (as research advisor)

Arwen Vaughan, "GIS-Based Allocation Analysis of Regional Water Supply and Demand," August, 2000.

Dean Rother, "Dangerous Intersections in San Marcos, Texas: A GIS-Based Analysis," December, 1999.

Ian Martin, "Location Analysis of the Multi-Institutional Teaching Center in North Austin," December, 1998.

Nicolas E. Gronquist, "Factors Affecting Commute Times in the Austin Metropolitan Area," June, 1997.

Ph.D. committees served on (with degree completion dates for completed students)

Forrest Wilkerson

Master's committees served on (with degree completion dates for completed students)

Tom Griffith (1998); J. Alberto Colino (1998); Stephanie Jensen (1999); Steve Floyd (2000), Justin Edmondson (2001), Joseph E Touchet

Fully Refereed Publications

- 2001 **Zhan, F. B.** A Fuzzy Set Model of Approximate Linguistic Terms in Descriptions of Binary Topological Relations between Simple Regions. In: L. Sztandera and Pascal Matsakis (Eds.), *Soft Computing in Defining Spatial Relations*, Physica-Verlag, Heidelberg, Germany. (in press)
- 2001 **Zhan, F. B.** How Much is Region Q Covering Region R 'a Little Bit,' 'Somewhat,' or 'Nearly Completely?' In: Matteo Cristani and Brandon Bennett (Eds.), *Proceedings of SVUG01: The First COSIT (Conference on Spatial Information Theory) Workshop on Spatial Vagueness, Uncertainty and Granularity*, to be held in Morro Bay, CA, September 17-18, 2001. (in press)
- 2001 Noon, C. E., **Zhan, F. B.** and Graham, R. L., GIS-Based Analysis of Marginal Price Variation with an Application in Ethanol Plant Location. *Networks and Spatial Economics* (in press)
- 2001 **Zhan, F. B.**, and Martin, I., Locating a Multiple-Institution Teaching Center In North Austin, Texas. *Papers and Proceedings of Applied Geography Conference* (in press)
- 2001 **Zhan, F. B.**, GIS for Air Quality: It's a Particulate Matter. *Geospatial Solutions*, 11(5): 24. (popular)
- 2001 **Zhan, F. B.**, Approximate Characterization of Topological Relations Between Fuzzy Regions and Their Corresponding Linguistic Descriptions. *Systems Analysis Modelling Simulation*, 41(1)
- 2000 **Zhan, F. B.**, The Ribbon and the "Beige Region": GIS Development for Epidemiology Analysis Along the Texas-Mexico Border. *SOCIOTAM: International Journal of Social Sciences & Humanities*, 10(1): 209-220.

- 2000 **Zhan, F. B.** and Noon, C. E., A Comparison Between Label-Setting and Label-Correcting Algorithms for Computing One-to-One Shortest Paths. *Journal of Geographic Information and Decision Analysis*, 4(2): 1-11.
- 2000 **Zhan, F. B.**, Educating Geographers with GIS Skills for the Real World: Some Feedback from Geography Graduates at Southwest Texas State University. *Geocarto International*, 15(3): 75-79.
- 1998 **Zhan, F. B.** and Noon, C. E., Shortest Path Algorithms: An Evaluation Using Real Road Networks. *Transportation Science*, 32(1): 65-73.
- 1998 **Zhan, F. B.**, A Family of Spatio-Temporal Location Analysis Problems in Mobile Trading. *Papers in Regional Science*, 77(1): 1-18.
- 1998 **Zhan, F. B.**, Approximate Analysis of Topological Relations Between Geographic Regions with Indeterminate Boundaries. *Soft Computing*, 2(2): 28-34.
- 1998 **Zhan, F. B.**, Larsen, R., and Zhou, X., Locate Recycled Materials on the Web. *ArcUser*, October-December, 1998, pp.26-27. (popular)
- 1997 **Zhan, F. B.**, Topological Relations Between Fuzzy Regions. In: Barrett Bryant, Janice Carroll, Dave Oppenheim, Jim Hightower, and K. M. George (Eds.), *Proceedings of the 1997 ACM Symposium on Applied Computing*, held in San Jose, CA, pp.192-196.
- 1997 **Zhan, F. B.**, Three Fastest Shortest Path Algorithms on Real Road Networks: Data Structures and Procedures. *Journal of Geographic Information and Decision Analysis*, 1(1): 69-82.
- 1996 **Zhan, F. B.** and Battenfield, B. P., Multi-Scale Representation of a Digital Line. *Cartography and Geographic Information Systems*, 23(4): 206-228.
- 1996 Fotheringham, A.S. and **Zhan, F. B.**, A Comparison of Three Exploratory Methods for Cluster Detection in Spatial Point Patterns. *Geographical Analysis*, 28(3): 200-218.
- 1995 **Zhan, F. B.** and Battenfield, B. P., Object-Oriented Rule-Based Symbol Selection for Visualizing Statistical Information. *International Journal of Geographical Information Systems*, 9(3): 293-315.
- 1992 **Zhan, F. B.** and Shi, W., GIS in Higher Education: A Curriculum Perspective. In: Hui Lin (Ed.), *Proceedings of the First Conference of Chinese Professionals in GIS*, held in Buffalo, NY, July, 1992. Beijing, China: Science Press, pp. 28-40. (in Chinese)
- 1991 **Zhan, F. B.**, Structuring the Knowledge of Cartographic Symbolization: An Object-Oriented Approach. In: David M. Mark and Denis White (Eds.), *Proceedings of the Tenth International Symposium on Computer-Assisted Cartography (Auto Carto 10)*, Baltimore, MD, pp. 247-260.
- 1987 **Zhan, F. B.**, Spatial Visual Variables and Spatial Resolution. *Journal of Science and Technology in Surveying and Mapping*, Wuhan, China: Press of Wuhan Technical University of Surveying and Mapping. (in Chinese)
- 1986 **Zhan, F. B.**, Overview of Land Management in Alberta, Canada. *Cehui Yicong*, No. 3, pp.20-32. Beijing, China: National Press of Surveying and Mapping. (in Chinese)
- 1986 **Zhan, F. B.**, Scientific and Technical Foundation of the National Cadastral System in the Soviet Union. *Cehui Yicong*, No. 3, pp.33-36. Beijing, China: National Press of Surveying and Mapping. (in Chinese)

- 1985 Wang, S., **Zhan, F. B.**, Shen, J., Wang, Z. and Zhu, Y., Statistical Analysis on Crustal Deformation Data in Northern China. *Seismological Research*, Kunming, China. (in Chinese)

Book Chapters or Equivalent

- 1998 **Zhan, F. B.**, Representing Networks. In *NCGIA Core Curriculum in Geographic Information Sciences*, Unit 064, National Center for Geographic Information and Analysis (NCGIA), Santa Barbara, CA.

Publications in Conference Proceedings (with Refereed Abstracts)

- 2000 Zhan, F. B., Quantification of Linguistic Modifiers in Descriptions of the Topological Relation "Region A Covers Region B" (extended abstract). *GIScience 2000: The First International Conference on Geographic Information Science*. Savannah, Georgia, USA, October 28-31, 2000, pp. 243-244.
- 2000 Zhan, F. B., Geographers in the Real World: Some Example Employment Profiles of Geography Graduates from Southwest Texas State University. In *Proceedings of the International IT Conference on Geo-Spatial Education*, July, 2000, pp.223-230.
- 1998 Zhan, F. B., and Han, Y., Fastest Algorithms for Computing One-to-One Shortest Paths. In *Proceedings of International Conference of Spatial Information Science and Technology (SIST '98 Wuhan)*, December 13-16, Wuhan, China, p.489-496.
- 1998 Zhan, F. B., Larsen, R., and Zhou, X., A Web-Based Recycling Markets Information System (RMIS). In *Proceedings of the 1998 ESRI User Conference*, San Diego, CA.
- 1997 Zhan, F. B., Approximation of Topological Relations Between Fuzzy Regions Satisfying a Linguistically Described Query (extended abstract). In: Hirtle S.C., Frank A.U. (Eds.) *Lecture Notes in Computer Science 1329. Spatial Information Theory: A Theoretical Basis for GIS. International Conference COSIT'97*. Laurel Highlands, Pennsylvania, USA, October15-18, 1997. Springer, Berlin, 509-510.
- 1996 Zhan, F. B., A Set of Shortest Path Algorithms That Run Fastest on Real Road Networks. In *Proceedings of GIS/LIS'96*, Denver, CO, pp.755-764.
- 1996 Noon, C. E., Daly, M., and Zhan. F. B., Beyond Assessment of Resources: Procurement of Woody Biomass Fuels. In *Proceedings of Bioenergy'96*, Nashville, TN, pp. 565-569.
- 1996 Noon, C. E., Daly, M., Graham, R., and Zhan. F. B., Transportation and Site Location Analysis for Regional Integrated Biomass Assessment (RIBA). In *Proceedings of Bioenergy'96*, Nashville, TN, pp. 487-493.
- 1995 Zhan, F. B. and Noon, C. E., Shortest Paths Algorithms: A Further Evaluation Using Real World Road Networks (abstract). In *Papers and Proceedings of Applied Geography Conferences*, Edited by F. Andrew Schoolmaster, Volume 18, p. 231.
- 1993 Zhan, F. B. and Mark, D. M., Conflict Resolution in Map Generalization: A Cognitive Study. In *Proceedings of the Eleventh International Symposium on Computer-Assisted Cartography (Auto Carto 11)*, held in Minneapolis, MN, edited by R. McMaster and M. Armstrong, pp. 406-413.

- 1992 Zhan, F. B. and Mark, D. M., Object-Oriented Spatial Knowledge Representation and Processing: Formalization of Core Classes and Their Relationships. In *Proceedings of the Fifth International Symposium on Spatial Data Handling*, held in Charleston, SC, edited by P. Bresnahan, E. Corwin and D. Cowen (Columbia, SC), pp.662-671.
- 1991 Zhan, F. B., A Knowledge-Based System for Urban Land Classification. In *Proceedings of the Second National GIS Conference*, Ottawa, Canada.
- 1988 Zhan, F. B., A Microcomputer Multipurpose Cadastral Information System. In *Proceedings of FIG Permanent Committee Conference*, Wellington, New Zealand.

Book Reviews

- 1996 Zhan, F. B., *Location Economics: Theoretical Underpinnings and Applications* (by Melvin L. Greenhut, 1995). Brookfield: Edward Elgar. *Social Science Quarterly*.
- 1996 Zhan, F. B., *Spatial Microeconomics: Theoretical Underpinnings and Applications*. (by Melvin L. Greenhut, 1995). Brookfield: Edward Elgar. *Social Science Quarterly*.

Recent Technical Research Reports

- 2000 Zhan, F. B., GIS-Based Allocation Analysis of Regional Water Supply and Demand. Technical report prepared for the Lower Colorado River Authority (LCRA). Department of Geography, Southwest Texas State University.
- 2000 Zhan, F. B., A Feasibility Study to Develop GIS-Based Emission Estimation and Allocation Along the Texas-Mexico Border. Technical report prepared for the Texas Natural Resources and Conservation Commission (TNRCC). Department of Geography, Southwest Texas State University.
- 1999 Zhan, F. B., and Martin, Iran, Multiple Institutional Teaching Center (MITC) Site Location Analysis. Technical report prepared for the Office of the Vice President for Academic Affairs at SWT. Department of Geography and Planning, Southwest Texas State University.
- 1998 Zhan, F. B., and Zhou, X., Texas Recycling Markets Information System (TRMIS) Online Tutorial. Tutorial prepared for the Texas Natural Resources and Conservation Commission (TNRCC). Department of Geography and Planning, Southwest Texas State University.
- 1998 Zhan, F. B., and Zhou, X., Design and Implementation Issues of the Texas Recycling Markets Information System (TRMIS). Technical report prepared for the Texas Natural Resources and Conservation Commission (TNRCC). Department of Geography and Planning, Southwest Texas State University.

Funded Projects (Zhan was sole Principal Investigator (PI) unless co-PIs are noted)

- 2001 “*High Tech Workforce Training for Youth: Geospatial Information Technology*,” funded by the Texas Workforce Commission, \$671,944. (PI: Richard Boehm; co-PI: Benjamin Zhan)
- 2000 “*Texas GIS-Based Sex Offender Location Notification Seed Grant*,” funded by the Texas Department of Public Safety, \$50,000. (co-PI: Lawrence Estaville)

- 2000 “*GIS-Based Pollutants Emission Estimation and Allocation Along the Texas-Mexico Border*,” funded by Texas Natural Resources and Conservation Commission, \$43,365.
- 1999 “*Modeling Urban Growth and GIS-Based Allocation Analysis of Regional Water Demand and Supply*,” funded by Lower Colorado River Authority (LCRA), \$107,830.
- 1998 “*A Web-Based Recycling Markets Information System II*,” funded by Texas Natural Resources and Conservation Commission, \$33,045.
- 1997 “*A Web-Based Recycling Markets Information System I*,” funded by Texas Natural Resources and Conservation Commission, \$44,740. (PI: Robert Larsen; co-PI: Benjamin Zhan).
- 1997 “*A Network-Based Model for Water Availability and Water Rights Management of Texas Rivers*,” funded by SWT Office of Research and Sponsored Program, Faculty Research Enhancement Grant, \$10,588. (co-PI: Richard Earl)
- 1997 “*Shortest Path Algorithms: An Empirical Evaluation Using Real Road Networks*,” funded by SWT Office of Research and Sponsored Program, Faculty Research Enhancement Grant, \$6,000.
- 1996 “*Models of Fuzzy Spatial Relations*,” funded by SWT Office of Research and Sponsored Program, Faculty Research Enhancement Grant, \$3,000.

Service as a Reviewer

Name of Journal/Book/Funding Agency/Organization	Year (No. of reviews)
<i>Cartographica</i>	1996, 1997
<i>Cartography and Geographic Information Systems</i>	1997, 1998
<i>Conference on Spatial Information Theory (COSIT)</i>	1999, 2001(3)
<i>Environment and Planning A</i>	2000, 2001
<i>Geographical Analysis</i>	1995, 1997, 1999
<i>Geoinformatica</i>	1998
<i>Geographical and Environmental Modelling</i>	1998
<i>International Journal of Geographical Information Science</i>	1994, 1997, 2000
<i>Journal of Geographic Information and Decision Analysis</i>	1997
<i>National Science Foundation</i>	2001(1)
<i>Networks</i>	1998
<i>Papers in Regional Science</i>	1998
<i>Photogrammetric Engineering and Remote Sensing</i>	1998
<i>Research in Geographic Education</i>	1999, 2000
Review of book chapters: Physica-Verlag book titled “ <i>Soft Computing in Defining Spatial Relations</i> ”	2001(2)
Review of book chapters: Global Institute for Energy and Environmental Systems (CIEES) book titled “ <i>Encyclopedia of Life Support Systems</i> ”	2001(1)

<i>Social Science Quarterly</i>	1996(2)
<i>UCGIS (University Consortium for Geographic Information Science) student paper competition</i>	2001 (36 abstracts)

Scholarly Talks (Invited Lectures)

- 2000 *GIS-Based Sex Offender Neighborhood Notification*, Presentation to the Staff of the Crime Records Services of the Texas Department of Public Safety (TDPS), Austin, TX. November 1
- 2000 *GIS-Based Estimation and Allocation of Criteria Pollutants Emissions*. Texas Natural Resource Conservation Commission (TNRCC). Austin, TX, August 25
- 1999 *GIS and Crime Analysis*, Presentation to the Staff of the Criminal Law Enforcement Division of the Texas Department of Public Safety (TDPS), Austin, TX. October 5
- 1999 *GIS and its Potential Applications in Highway Patrol Planning*, Presentation to the Staff of the Traffic Law Enforcement Division of the Texas Department of Public Safety (TDPS), Austin, TX. September 24
- 1999 *GIS Solutions for the Identification of the Location of Texas Sex Offenders*. Presentation to the Staff of the Crime Record Division of the Texas Department of Public Safety (TDPS), Austin, TX. September 2
- 1999 *Texas Data Center for Crime Mapping and Analysis*. Presentation to the Director of the Texas Department of Public Safety (TDPS), Austin, TX. April 9
- 1999 *GIS-Based Transportation Analysis for Regional Integrated Biomass Assessment*. Department of Geography, University of Wisconsin, Madison, WI. February 5
- 1999 *Regional Integrated Biomass Assessment (RIBA) Using GIS*. Department of Geography, The Ohio State University, Columbus OH. January 23
- 1998 *Texas Data Center for Crime Mapping and Analysis*. Presentation to Representative Henry Cuellar, Laredo, TX. October 19
- 1998 *Multiple-Institution Teaching Center (MITC) Site Location Analysis*. SWT President Cabinet. San Marcos, TX. April 16
- 1997 *A Web-Based Texas Recycling Markets Information System (RMIS)*. Presentation to Houston-Galveston Area Council of Government, Houston, TX. May 8
- 1997 *A Web-Based Texas Recycling Markets Information System (RMIS)*. Presentation to Permian Basin Council of Government, Midland, TX. April 25
- 1997 *A Web-Based Texas Recycling Markets Information System (RMIS)*. Presentation to North Texas Council of Government, Dallas, TX. April 11
- 1996 *A New Method For Cluster Detection In Spatial Point Patterns*. Department of Mathematics, Southwest Texas State University, San Marcos, TX. March 27
- 1995 *A Spatial Decision Support System for Wood Fuel Procurement*. Department of Geography, Southwest Texas State University, San Marcos, TX. April 27
- 1994 *Spatio-Temporal Location Theory of Mobile Trading*. Management Science Program, The University of Tennessee, Knoxville, TN. September 16

- 1989 *Urban Land Classification Using Knowledge-Based Systems*. Center for Computer Graphics and Mapping, Faculty of Geodesy, Delft University of Technology, The Netherlands. April 20

Conference Presentations

- 2001 Zhan, F. B., Geographic Distributions of Cancer Mortality in Texas. *AAG 2001*. New York, NY, Feb. 25 – March 3.
- 2000 Zhan, F. B., Quantification of Linguistic Modifiers in Descriptions of the Topological Relation "Region A Covers Region B." *GIScience 2000: The First International Conference on Geographic Information Science*. Savannah, GA, October 28-31.
- 2000 Geographers in the Real World: Some Example Employment Profiles of Geography Graduates from Southwest Texas State University, *International IT Conference on Geo-Spatial Education*. Hong Kong, China. July
- 1998 An Online Recycling Markets Information System (RMIS). *ESRI User Conference*. San Diego, CA.
- 1998 The Ribbon and the "Beige Region": GIS Development for Epidemiology Analysis. *Annual Conference of US-Mexico Borderland Studies*. Nogales, AZ.
- 1997 A New Method for Spatial Point Pattern Analysis. *AAG'97*, Fort Worth, TX.
- 1997 GIS-Transportation and the Private Sector: Building Common Grounds between Universities and Private Sectors. *AAG'97*, Fort Worth, TX.
- 1997 Topological Relations Between Fuzzy Regions. *The 1997 ACM Symposium on Applied Computing*, San Jose, CA.
- 1997 Approximate Analysis of Topological Relations Between Geographic Regions with Indeterminate Boundaries. *The Second Workshop of the International Institute for General Systems Studies*, San Marcos, TX.
- 1996 GIS Programs at Southwest Texas State University. *Texas GIS Forum'96*, Austin, TX.
- 1996 Approximate Analysis of Geographic Objects with Indeterminate Boundaries. *International Institute of General Systems Studies Workshop II*, San Marcos, TX.
- 1996 A Set of Shortest Path Algorithms That Run Fastest on Real Road Networks. *GIS/LIS'96*, Denver, CO.
- 1996 A Spatial Decision Support System For Wood Fuel Procurement. *AAG'96*, Charlotte, NC.
- 1995 A Family of Spatio-Temporal Competitive Location Models in Mobile Trading. *AAG'95*, Chicago, IL.
- 1995 Shortest Path Algorithms: An Evaluation Using Real Road Networks. *The 18th Applied Geography Conference*. Crystal City, Arlington, VA.
- 1994 A Model of Spatio-Temporal Competition in Two-Trader Mobile Trading. *AAG'94*, San Francisco, CA.
- 1993 Spatio-Temporally Constrained Disaggregate Accessibility Modeling in GIS. *First McMaster/UB Graduate Conference*, Buffalo, NY.
- 1992 Generalization of Spatial Databases, *the First Conference of Chinese Professionals in GIS*, Buffalo, NY.

- 1992 Object-Oriented Spatial Knowledge Representation and Processing: Formalization of Core Classes and Their Relationships. *Fifth International Symposium on Spatial Data Handling*, Charleston, SC.
- 1991 Structuring the Knowledge of Cartographic Symbolization: An Object-Oriented Approach. *Auto Carto 10*, Baltimore, MD.

Membership in Professional Societies

- Member: Association of American Geographers (AAG)
Southwest Association of American Geographers (SWAAG)
- Formerly: Association of Computing Machinery (ACM)
Institute for Operations Research and the Management Sciences (INFORMS)
Association of Chinese Professionals in Geographic Information Systems (CPGIS)

Service as a Member of a Program Committee

- 2001- Member, Research Committee, *University Consortium for Geographic Information Science (UCGIS)*
- 2000- Scientific Committee, *COSIT'2001 - Fifth Conference on Spatial Information Theory*. Morro Bay, CA. September 19-23, 2001
- 1999 Scientific Committee, *COSIT'1999 - Fourth Conference on Spatial Information Theory*. Stade, Germany. August 25-29
- 1997 *International Institute for General Systems Studies (IIGSS) Workshop II*. San Marcos, Southwest Texas State University, San Marcos, TX. January 9-11
- 1996 *Formal Models of Common Sense Geographic Worlds*. NCGIA Research Initiative 21 Specialist Meeting (Local Arrangements), San Marcos, TX. Oct. 30 to Nov. 3
- 1992 *First Annual Conference of the Association of Chinese Professionals in Geographic Information Systems (Abroad) (CPGIS)*, Buffalo, NY. August 15-16

Recent Service in Academic Settings

- 2001-02 Board member, Austin Great Wall Chinese School, Austin, Texas
- 2001- SWT lead delegate to University Consortium for Geographic Information Science (UCGIS)
- 2001- Member, Evaluation Committee. Department of Geography, SWT
- 2001 Chair, GIScience Faculty Search Committee. Department of Geography, SWT
- 2001 Member, Water Resources Faculty Search Committee. Department of Geography, SWT
- 2000-01 Chair, Travel Committee. Department of Geography, SWT
- 1996-01 Member, Chair's Technical Advisory Committee. Department of Geography, SWT
- 1999-00 Member, Travel Committee. Department of Geography and Planning, SWT

- 1997-98 Project director, *Multi-Institutional Teaching Center (MITC) Site Analysis Project* for the Office of the Vice President for Academic Affairs at SWT. Devoted about 180-200 hours of service to the project. (1997-98)
- 1997-98 Member, Scholarship and Awards Committee. Department of Geography, SWT
- 1997 Member, Faculty Search Committee. Department of Geography, SWT
- 1996-98 Supervisor, Cartography/GIS concentration. Department of Geography, SWT
- 1996 Member, Faculty Search Committee. Department of Geography, SWT
- 1995-97 Member, Travel Committee. Department of Geography, SWT
- 1995-96 Member, Scholarship and Awards Committee. Department of Geography, SWT
- 1995-96 Member, Technological Committee. Department of Geography, SWT