

7-1996

# UA66/8/3 Annual Report

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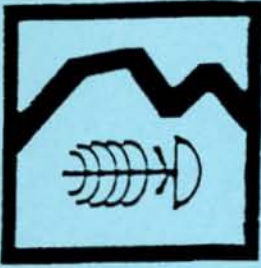
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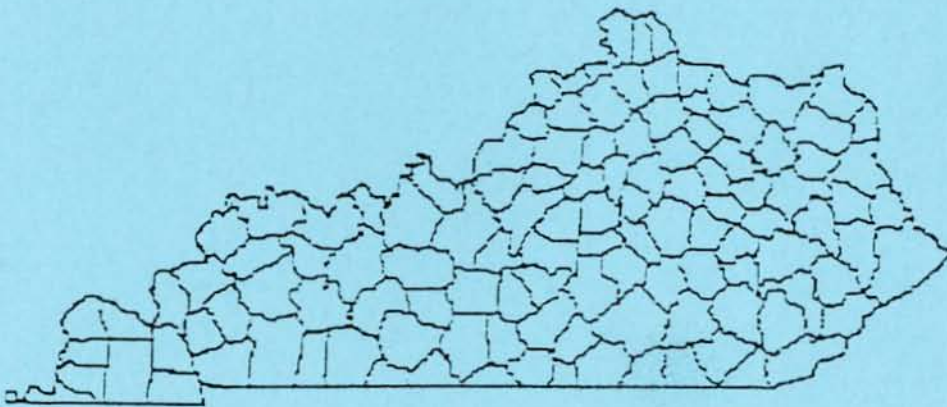
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Department of Geography and Geology  
Western Kentucky University  
Bowling Green, Kentucky 42101

**ANNUAL REPORT  
1995**



July, 1996

DEPARTMENT OF  
GEOGRAPHY AND GEOLOGY

Annual Report  
1995




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## ACKNOWLEDGMENTS

This report is dedicated to Dr. James L. Davis -- Teacher, Scholar, and Friend -- who has elected to take early retirement effective, July, 1995. Dr. Davis joined the Geography and Geology Department in 1964 as an Assistant Professor. After a term as Department Head, he joined the central administration as Dean of Faculty Programs. From 1976-84 he served as Vice President of Academic Affairs. In 1984, he was granted the ultimate promotion, returning to the Department. Since that date, he has performed in an outstanding manner in the areas of teaching, research, and public service. While continuing to teach two classes per semester, Jim will be limiting his other Departmental and University activities. He will be missed!

  
Wayne L. Hoffmann  
Department Chair

## 1995 IN REVIEW

Dear Reader,

Faculty excellence in teaching, research, and public service continued in 1995. During the past year, faculty published 16 articles; 28 technical, consulting and other reports; and 15 abstracts. Faculty presented 38 professional papers at numerous international, national, and other professional meetings. For the five year period 1991-1995, faculty published 101 articles, 95 technical consulting and other reports, and 59 abstracts (Table 1). Moreover, they presented 173 professional papers for the cited period. External grant activity lagged for the second straight year. Over \$7,800 was secured during the reference year. Despite this decline, our five year total (1991-1995) in external grants, contracts, and donated equipment exceeded \$530,000 (Table 2).

Students majoring in geography and geology at the undergraduate and graduate level continued to bring credit to the Department. In 1995, students authored or co-authored 7 publications and presented 13 professional papers (Table 1). For the five year period 1991-1995, students published 64 items and presented 73 professional papers.

Research and its presentation is a vital component of learning at the undergraduate and graduate level. Faculty in this Department spend countless hours immersing their students in their own and in independent research. We believe our emphasis and concern is what sets us apart at this and other universities. We believe this emphasis is directly related to the fact that the geography area, in terms of program enrollment, is one of the largest in the country. Since Spring 1992 Semester, program enrollments in the geography majors have grown from 81 to 120, an outstanding increase. In addition, the geology area, while experiencing stable enrollment for the 1992-1995 period, is among the largest programs in the Commonwealth.

Administratively, during the past year, we continued to implement various elements of "Moving to Another Level." Department faculty were actively involved in developing an assessment evaluation that will be administered to senior majors during the Fall 1996 Semester. The competencies and skills desired of our graduates can be found in another section of this report. ↗

In the personnel area, several significant changes were made. As reported in last year's review, Ms Betsy Lowry retired effective June 30, 1995. She was replaced by Ms Sue Pillow, who has made the change from central administration to the department level with little difficulty. Dr. Jim Davis elected to take early retirement effective July 1, 1996. Jim joined the Department in 1964 and was Head during a significant period of expansion. In 1970, he moved to central administration. He was Vice President for Academic Affairs from 1976-1984. Dr. Davis was and is an outstanding administrator, teacher and friend. While limiting his advising and committee work, Jim will teach two classes each semester for the next five years.

To replace Noland Fields (who took early retirement in 1994) and Jim Davis, we were allocated one faculty position. Dr. Michael May, Ph.D., Indiana University, who has extensive experience in Environmental Geology will join our staff in August. His credentials are outstanding and we look forward to a long and productive career from our new colleague.

Nick Crawford was honored this past year, receiving the University's Public Service Excellence Award. His work with the Center for Cave and Karst Studies and the Summer Program at Mammoth Cave has brought credit to him and his Department. One of this Department's real strengths is its outreach to the Commonwealth, region, and local areas. Nick's efforts represent, in the finest tradition, our public service commitment.

In other areas of the university, Dr. Robert Haynes, Vice President for Academic Affairs, elected to return to the History Department after a distinguished administrative career. After a national search, he has been replaced by Dr. Barbara Burch. Dr. Burch has served in numerous administrative positions at universities throughout the United States. As a former graduate of Western, she knows and understands the complexities of this University.

We invite you to explore the remaining pages of this report. They document faculty and student excellence, dedication, and productivity. As I complete my 20th year as Department Chair, I take pride in the accomplishments of faculty, students, and alumni of this vital unit.

  
Wayne L. Hoffman  
Department Chair



**TABLE 1**  
**NONINSTRUCTIONAL ACTIVITIES 1991 - 1995**

	1991	1992	1993	1994	1995	Total
Publications	20	14	20	31	16	101
Technical and Consulting Reports	22	8	19	18	28	95
Abstracts	10	13	9	12	15	59
Papers Presented	33	31	36	35	38	173
Attendance at Professional Workshops	7	14	11	10	5	47
Attendance at Professional Meetings	47	53	51	49	46	246
Positions in Professional Organizations	12	20	21	17	18	85
Grants and Fellowships	21	30	25	18	20	114
Student Papers Presented	11	12	18	19	13	73
Student Publications	8	9	27	13	7	64

**TABLE 2**  
**EXTERNAL GRANT, CONTRACT ACTIVITY, AND  
DONATED EQUIPMENT 1991 - 1995**

School Year Funded	Number of Proposals	Number Funded	Amount
1991	12	9	\$ 76,007
1992	12	8	\$ 73,808
1993	20	9	\$ 363,556
1994	10	8	\$ 12,180
1995	8	6	\$ 7,832
Total	62	40	\$ 533,393

## FACULTY AND STAFF

### Full-Time Faculty

S. Reza Ahsan, Ph.D. (Florida), Professor. Cartography, Air Photo, Remote Sensing, South Asia, Eastern Africa, Caribbean.

James M. Bingham, Ph.D. coursework (Indiana State), Assistant Professor. Economic, Location Theory, Planning.

Glen Conner, M.S. (Western Kentucky), Associate Professor. Meteorology, State Climatologist.

Nicholas C. Crawford, Ph.D. (Clark), Professor. Hydrology, Groundwater, Karst Studies.

James L. Davis, Ph.D. (Northwestern), Professor. Urban, Transportation, North America.

Noland E. Fields, Jr., Ph.D. (Louisiana State), Professor. Environmental Geology, Sedimentary Geology, Paleontology.

Stuart Foster, Ph.D. (Ohio State), Associate Professor. Quantitative Methods, Location Analysis, Geographic Information Systems.

Christopher G. Groves, Ph.D. (Virginia), Assistant Professor. Geomorphology, Hydrology.

Wayne L. Hoffman, Ph.D. (Florida), Head, Professor. Urban, Economic, Planning.

David Keeling, Ph.D. (University of Oregon), Assistant Professor. Latin America, Regional, Urban, Transportation.

Deborah W. Kuehn, Ph.D. (Pennsylvania State), Associate Professor. Coal Geology, Organic Geochemistry, Sedimentology.

Kenneth W. Kuehn, Ph.D. (Pennsylvania State), Professor. Coal Geology, Coal Petrology, Stratigraphy.

Mark Lowry II, Ph.D. (Syracuse), Professor. Urban, Social, Planning.

Elizabeth McClellan, Ph.D., ( University of Tennessee), Assistant Professor. Mineralogy, Petrology.

Conrad T. Moore, Ph.D. (U.C.L.A.), Professor. Resource Management, Biogeography, Environmental Perception.

Albert J. Petersen, Jr., Ph.D. (Louisiana State), Professor. Cultural Settlement Patterns, Historic Preservation.

Mary C. Prante, Ph.D. Candidate (Kansas), Instructor. Cartography, Physical Geography.

L. Michael Trapasso, Ph.D. (Indiana State), Professor. Climatology, Geomorphology, Remote Sensing.

**Part-Time Faculty**

Robert Druen, M.A., Education/Geography, Western Kentucky University  
Rick Scott, M.A., Education/Earth Science, Western Kentucky University  
Mark Simpson, ABD, Geography, Indiana State University  
Gary Talley, M.S., Geography, Western Kentucky University  
Jim Thomason, M.S., Geography, Texas A & M

**Staff**

Ms. Sue Pillow, Office Associate

### EQUIPMENT PURCHASED - 1995-96

During the past academic year, the department purchased \$35,539 in equipment and software. Of this total \$7,209 was generated from the regular operating budget. The remaining \$28,330 was secured from external and internal grants, lapse salary from the Dean, or a special allocation made available by the President. The equipment purchased is as follows:

Panasonic Camcorder	\$ 640
TV Color Monitor	523
Micro Video Camera	995
Panasonic VCR	240
AV Cart	247
Lab Tables	4,488
Resistivity Meter	5,116
ARC INFO & ARC VIEW Programs	1,150
Automated Weather Station	6,407
IDRISI for Windows	2,475
Photographic Equipment	2,050
HP Laserjet Printer	1,390
Zenith Pentium Computer	2,000
2 Overhead Projectors	550
PowerPlot Software	648
Aerovane Model Transmitter	2,520
HP Printer	1,400
HP Laserjet Plotter	2,700
TOTAL	\$35,539

## FACULTY PUBLICATIONS

- Bingham, James and Wayne Hoffman, "The Persistence of Poverty in Kentucky: A Spatial Analysis," *Proceedings*, Geography Section, Kentucky Academy of Science, 1994, pp. 127-141.
- Conner, Glen, "Latitudinal Variation in Precipitation over Consecutive Days", *Proceedings* Geography Section, Kentucky Academy of Science, November 1994, pp. 29-38.
- Crawford, N.C. and C.G. Groves, Sinkhole Collapse and Ground Water Contamination Problems Resulting from Storm Water Drainage Wells on Karst Terrain," Beck, B.F. (ed.) Karst GeoHazards, *Proceedings*, Fifth Multidisciplinary Conference on Sinkholes and in Engineering and Environmental Impacts of Karst, Gatlinburg, TN, (1995, pp. 257-264).
- Crawford, N.C., "Microgravity Techniques for Detection of Karst Subsurface Features," Site Investigations: Geotechnical and Environmental, *Proceedings*, Twenty-Sixth Ohio River Valley Soils Seminar, Clarksville, IN, 1995, pp. 1-24.
- Davis, James and Nancy H. Davis, "Place in Edith Wharton's Edith Frome," *Proceedings*, Geography Section, Kentucky Academy of Science, 1995, pp. 1-7.
- Groves, C. G. and A. D. Howard, "Early Development of Karst Systems: 2. Turbulent Flow," *Water Resources Research*, Vol. 31, 1995, pp. 19-26.
- Groves, C.G., "Geology of Barbados and the Harrison's Cave Area," *A Study of Environmental Factors in Harrison's Cave, Barbados*. National Speleological Foundation, 1995, pp. 9-17.
- Groves, C.G. and R.H. Gurnee, "Structural Conditions Within Harrison's Cave Area," *A Study of Environmental Factors in Harrison's Cave, Barbados*. National Speleological Foundation, 1995, pp. 98-104.
- Groves, C.G. and J. Meiman, "Could Mammoth Cave be Reduced to a Single Equation?" *Proceedings of the Fourth Mammoth Cave Science Conference*, 1995, pp. 135-144.
- Groves, C.G. and N.C. Crawford, "Sinkhole Collapse and Groundwater Contamination Problems Resulting from Storm Water Drainage Wells on Karst Terrains," Karst GeoHazards, *Proceedings*, Fifth Multidisciplinary Conference on Sinkholes and in Engineering and Environmental Impacts of Karst, Gatlinburg, TN, 1995, pp. 257-264.
- Hoffman, Wayne L. and James Bingham, "The Persistence of Poverty in Kentucky: A Spatial Analysis," *Proceedings*, Geography Section, Kentucky Academy of Science, 1994, 1995, pp. 127-141.
- Hoffman, Wayne L., Editor, *Proceedings*, Geography Section, Kentucky Academy of Science, 1994, 1995, pp. 141.
- Keeling, David J., "Transport and the World City Paradigm," Paul L. Knox and Peter J. Taylor (eds.) World Cities in a World-System. Cambridge: Cambridge University Press 1995, pp. 115-131.

Keeling, David J., "Penny Lane and the Street of Vice: Popular Music, Sense of Place, and Images of the Urban Environment," *Proceedings*, Geography Section, Kentucky Academy of Science 1995, pp. 8-22.

Lowry, Mark, "Fishermen of Sua," *The South American Explorer*, Number 39, December, 1994, pp 32-40.

Moore, Conrad, "Central North American Grassland Migration: Stochastic Processes or Climatic Influence?" *Proceedings*, Geography Section, Kentucky Academy of Science, 1995, pp. 23-31.

**TECHNICAL REPORTS, EDITORIAL COMMENTS, BOOK REVIEWS,  
& OTHER PUBLICATIONS**

- Crawford, N.C. and E.R. Hillard. Groundwater Flow in the Vicinity of the Gate Auto Service Station, Columbia, Kentucky, Vols. 1-3, prepared for CBM Environmental, Inc., January 1995.
- Crawford, N.C. and T.E. Slattery. Dye Traces to Assess Groundwater Flow in the Vicinity of the CSX Train Derailment near Lewisburg, Marshal County, Tennessee, Vols. 1-2, prepared for Ogden Environmental and Energy Services, January 1995.
- Crawford, N.C. and T.E. Slattery. Groundwater Flow in the Vicinity of the Kendall Company, Franklin, Kentucky, Vols. 1-3, prepared for Kendall Company, April 1995.
- Crawford, N.C., Tucker, R.B. and M.A. Summerlin. Microgravity Subsurface Investigation at the Site of a Sinkhole Collapse under Interstate 65 at Elizabethtown, Kentucky, prepared for Kentucky Department of Transportation, pp. 130, May 1995.
- Crawford, N.C. Laboratory Analysis of Activated Charcoal Dye Receptors: Tarter Farm Site Dye Trace, Somerset, Kentucky, Vols. 1-2, prepared for Civil and Environmental Consultants, Inc., September 1995.
- Crawford, N.C. Hydrogeologic Investigation, Saad Trousdale Site, Nashville, Davidson County, Tennessee, Vols. 1-7, prepared for Roy F. Weston, Inc. and U.S. Environmental Protection Agency, Region IV, December 1995.
- Crawford, N.C. and S. Slunder. Karst Groundwater Study of the Century Electric Site, McMinnville, Tennessee, prepared by EMPE, Inc., June, 1995.
- Groves, C.G., N.C. Crawford, J.W. Wilson, and D. Ward. K-25 Groundwater Modeling Strategy, MMK GW. 01-001. Report prepared for Oak Ridge National Laboratory, Environmental Resource Division, pp. 28, 1995.
- Davis, James. Instructor's Manual for use with Human Geography: People, Cultures and Landscapes. Harcourt Brace, 1995, pp. 240.
- Groves, C.G. and N.C. Crawford. Microgravity Subsurface Investigation at the Site of a Sinkhole Collapse Under the South Entrance Road to Mammoth Cave National Park, Kentucky. Report prepared for National Park Service, Mammoth Cave National Park, pp. 109.
- Keeling, David J. "Transport and the World City Paradigm," Paul L. Knox and Peter J. Taylor (eds.) World Cities in a World-System. Cambridge: Cambridge University Press 1995, pp. 115-131.
- Keeling, David J. "From the Editor. The U.S. and Latin America: Partners in Progress," Intercambio Internacional Vol. 13(2), 1995, pp. 1-2.
- Keeling, David J. Review of "The Channel Tunnel: A Geographical Perspective," Richard Gibb (ed.) SLA Geography & Maps Division Bulletin 1995, Vol. 180, pp. 84-85.

- Keeling, David. Review of "Divided Britain," Alan Williams and Ray Hudson. SLA Geography & Maps Division Bulletin, 1995, Vol. 181, pp. 146-147.
- Kuehn, K.W. Comments from your President, Kentucky Geologist, Spring 1995, p.1.
- Kuehn, K.W. Comments From Your President, Kentucky Geologist, Summer 1995, p.1.
- Moore, Conrad. "Central North American Grassland Migration: Stochastic Processes or Climatic Influence?" Proceedings Geography Section, Kentucky Academy of Science, 1995. pp. 23-31.
- Trapasso, L.M. Review of "Wildfires and the Law," (ed) Jacques Bourrinet and Martinus Nijhoff (EDS) Dordrecht-Boston-London, for GeoJournal, Vol. 35 (1) pg. 94.
- Trapasso, L.M. Review of, "Australia" by R.L. Heathcote, Longman Scientific & Technical, Essex, England, for GeoJournal, Vol. 36 (4) p. 439.
- Trapasso, L.M. Meteorological Conditions for Skillern et. al. vs. Royal Crown Bottling & Distributing Co., Inc., Breen, Attorneys at Law.
- Trapasso, L.M. Meteorological Conditions for Johnson et al. vs. Atmos Energy Corp., et al, Safford & Lamphere, Attorneys at Law.
- Trapasso, L.M. Meteorological Conditions for Kovada vs. Byrd's Body Shop, Hixon, Downey & Travelstead, Attorneys at Law.
- Trapasso, L.M. Meteorological Conditions for Farmers Fertilizer Co. vs. Fred Wilson, Goldberg & Simpson, Attorneys at Law.
- Trapasso, L.M. Meteorological Conditions in and around Franklin, Kentucky, Crocker & Wilkey, Attorneys at Law.
- Trapasso, L.M. Meteorological Conditions for Bowling Green, Kentucky, Kerrick, Grise, Stivers, Attorneys at Law.
- Trapasso, L.M. Meteorological Conditions for Weaver vs. Minnicks, Bell, Orr, Ayers & Moore, Attorneys at Law.
- Trapasso, L.M. Meteorological Conditions for Bowling Green, Kentucky, for Lewis, King, Kreig, Waldrop & Catron, Attorneys at Law.



## ABSTRACTS

Davis, James L. and Stuart A. Foster, "Railroads and Place: A Geographic Analysis," Annual Meeting of the Kentucky Academy of Science, Bowling Green, KY, November, 1995.

Foster, Stuart A. and Wilpen L. Gorr, "A Reverse Spatial Adaptive Filter for Modeling Local Instabilities" 91st Annual Meeting of the Association of American Geographers, Chicago, IL, March, 1995.

Foster, Stuart A. and Wilpen L. Gorr, "Modeling Local Instabilities Using Adaptive Filters," North American Meeting of the Regional Science Association International, Cincinnati, OH, November, 1995.

Foster, Stuart A. and James L. Davis, "Railroads and Place: A Geographic Analysis," Annual Meeting of the Kentucky Academy of Science, Bowling Green, KY, November, 1995.

Groves, C.G. and J. Meiman, "The Hawkins River Ground Water Monitoring Project," Mammoth Cave, Kentucky. Southeast Geological Society of America, Abstracts with Programs, 1995, pp.74.

Groves, C.G. and J. R. Wells, "Recent Exploration in Hidden River, Mammoth Cave, Kentucky." National Speleological Society Bulletin, 1995, vol. 57, pp. 70-71.

Groves, C.G. and K. Bearden, "Use of Geographical Information Systems in the Study of Karst Groundwater Flow at the Drainage Basin Scale." National Speleological Society Bulletin, 1995, vol. 57, pp. 77.

Groves, C.G. and J. Meiman, "Recent Results from the Hawkins River Site, Mammoth Cave, Kentucky." *Proceedings*, National Meeting of the National Speleological Society, Blacksburg, Virginia, 1995.

Groves, C.G., and J. Meiman, "Storm Water Impacts on Carbonate Groundwater Chemistry at the Hawkins River Site, Mammoth Cave, Kentucky." Geological Society of America, Abstracts with Programs, 1995, pp. 136.

Groves, C.G., J. Meiman, and C. Hall, 1995, "Water Quality Variations and Contaminant Mass Flux Signatures Associated with Flood Pulse Activity in the Mammoth Cave Karst Aquifer, Kentucky." Geological Society of America, Abstracts with Programs, 1995, pp. 136.

Keeling, David J., "Regional Development, Transport, and Economic Potential in Argentina." *Proceedings of the 42nd North American Meetings of the Regional Science Association International*, Cincinnati, OH, November 1995.

Kuehn, K. W., "Maintaining the Quality of Kentucky Coals," *Proceedings Geology Section, Kentucky Academy of Science, 81st Annual Meeting*, November, Bowling Green, KY, 1995, pp.7-8.

McClellan, E. A., "Folding and Foliation Development in the Stei-Langsætra Shear Zone, South-Central Norwegian Caledonides." *Geological Society of America Abstracts with Programs*, 1995, v. 27, pp. 72.

Moore, Conrad T., "Zonal Drought Equilibrium in the Contiguous United States, 1895-1994." *Abstracts: The Association of American Geographers 91st Annual Meeting*, March, 1995, Chicago, IL, pp. 217.

Prante, Mary C., "An Alternative Hypothesis for Quaternary Evolution of the Kansas Landscape." Principal author and presenter; co-authors Wakefield Dort, Jr. And Kevin P. Price. For paper presented at 91st Annual Meeting of the Association of American Geographers held in Chicago, IL, March, 1995; published in *Proceedings* and abstracts volume.

## PROFESSIONAL PAPERS PRESENTED

Ahsan, Resa, "Air Photos of Bowling Green, KY," Annual Meeting, Kentucky Academy of Science, Bowling Green, KY, November 1995.

Bingham, James M. and Wayne L. Hoffman, "Boon or Boondoggle: Kentucky's Industrial Incentive Program," Annual Meeting, Kentucky Academy of Science, Bowling Green, KY, November 1995.

Conner, Glen, "Quality Control in Digitizing Midwestern Climate Data," Annual Meeting, American Association of State Climatologists, Asheville, NC, August 1995.

Conner, Glen, "The Demise of Qualitative Climatology," Kentucky-Indiana Chapter, American Meteorological Society, Louisville, September 1995.

Conner, Glen, "Weather and Climatic Data and Research Opportunities on the Web: The Kentucky Climate Center," Kentucky Academy of Science Symposium, Bowling Green, KY November 1995.

Conner, Glen, "The Doubling of Kentucky's Climate Record," Annual Meeting, Kentucky Academy of Science, Bowling Green, November 1995.

Crawford, N.C., W. Clauson and S. Forbis, "Potential Groundwater Contamination of the Karst Aquifer under Bowling Green, Kentucky, from Spills of Hazardous Chemicals being Transported along Railroads and Highways," Annual Meeting, Kentucky Academy of Science and Tennessee Academy of Science Joint Meeting, Bowling Green, KY, November 1995.

Crawford, N.C., "The Use of Microgravity for Installation of Monitoring Wells Directly into Conduits in Karst Aquifers," Annual Meeting, Kentucky Academy of Science and Tennessee Academy of Science, Bowling Green, KY, November 1995.

Crawford, N.C. and C.G. Groves, "Sinkhole Collapse and Groundwater Contamination Problems Resulting from Storm Water Drainage Wells on Karst Terrain," Fifth Multidisciplinary Conference on Sinkholes and the Engineering and Environmental Impacts of Karst, Gatlinburg, TN, April 1995.

Crawford, N.C. "Microgravity Techniques for Detection of Karst Subsurface Features," Keynote Speaker at Twenty-Sixth Ohio River Valley Soils Seminar, Clarksville, IN, October 1995.

Davis, James L. and Nancy H. Davis, "Geographic Elements in a Regional Novel." National Meeting, Popular Culture Association, Philadelphia, PA, April 1995.

Davis, James L. and Stuart A. Foster, "Railroads and Place: A Geographic Analysis." Annual Meeting, Kentucky Academy of Science, Bowling Green, KY, November 1995.

Foster, Stuart A. and Wilpen L. Gorr, "A Reverse Spatial Adaptive Filter for Modeling Local Instabilities," 91st Annual Meeting, Association of American Geographers, Chicago, IL, March 1995.

Foster, Stuart A. and Wilpen L. Gorr, "Modeling Local Instabilities Using Adaptive Filters," 91st Annual Meeting, Association of American Geographers, Chicago, IL, March 1995.

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Groves, C.G. and J. Meiman, "Recent Results from the Hawkins River Site, Mammoth Cave, Kentucky." National Meeting, National Speleological Society, Blacksburg, VA, 1995.

Groves, C.G., and J. Meiman, "Storm Water Impacts on Carbonate Groundwater Chemistry at the Hawkins River Site, Mammoth Cave, Kentucky." National Meeting, Geological Society of America, New Orleans, LA, 1995.

Groves, C.G., and J. Meiman, "Water Quality Variations and Contaminant Mass Flux Signatures Associated with Flood Pulse Activity in the Mammoth Cave Karst Aquifer, Kentucky." National Meeting, Geological Society of America, New Orleans, LA, 1995.

Groves, C.G., and N. Crawford, "Sinkhole Collapse and Groundwater Contamination Problems Resulting from Storm Water Drainage Wells on Karst Terrains." Fifth Multidisciplinary Conference on Sinkholes and the Engineering and Environmental Impacts of Karst, Gatlinburg, TN, 1995.

Groves, C.G., and J. Meiman, "The Hawkins River Ground Water Monitoring Project, Mammoth Cave, Kentucky." Southeast Geological Society of America, Knoxville, TN, 1995.

Groves, C. G., "Hydrology of the Central Kentucky Karst." Green River Basin Conference, Bowling Green, KY, 1995.

Groves, C.G., and J. Meiman, "Could Mammoth Cave be Reduced to a Single Equation?" Fifth Mammoth Cave Science Conference, Mammoth Cave, KY, 1995.

Hoffman, W.L., and J. Bingham, "Boon or Boondoggle: Kentucky's Industrial Incentive Program," Annual Meeting, Kentucky Academy of Science, Bowling Green, Kentucky, November 1995.

Keeling, David J., "Spatial Dynamics of Population Change in Contemporary Argentina." Midwest Association of Latin American Studies, Baños, Ecuador, November 1995.

Keeling, David J., "Regional Integration, Transport Improvements, and the Global Economy," 81st Meeting of the Kentucky Academy of Science, Bowling Green, KY, November 1995.

Keeling, David J., "Regional Development, Transport, and Economic Potential in Argentina." 42nd North American Meetings of the Regional Science Association International, Cincinnati, OH, November 1995.

Keeling, David J., "Transport and Regional Integration in the Southern Cone of South America." 18th National Third World Studies Conference, Omaha, NE, October 1995.

Kuehn, K. W., "Maintaining the Quality of Kentucky Coals," Annual Meeting, Kentucky Academy of Science, Bowling Green, KY, November 1995.

Lowry, Mark, "Colorado Indians of Ecuador: Culture in Transition," Partners of the Americas, Video Presentation, Bowling Green, KY, January 1995.

Lowry, Mark, "Traditional Fishing vs. Modern Tourism: Conflict and Accommodation at Sua Ecuador," Midwestern Association of Latin American Studies, Ecuador, South America, November 1995.

McClellan, E.A., "Folding and Foliation Development in the Stei-Langsætra Shear Zone, South-Central Norwegian Caledonides." Geological Society of America, Southeastern Section Meeting, Knoxville, TN, April 1995.

McClellan, E. A., "Tectonic and Stratigraphic Setting of the Hillabee Greenstone: A Progress Report." Annual Meeting, Kentucky Academy of Science/Tennessee Academy of Science, Bowling Green, KY, November 1995.

- Moore, Conrad, "Zonal Drought Equilibrium in the Contiguous United States, 1995-1994," Annual Meeting, Association of American Geographers, Chicago, IL, March 1995.
- Moore, Conrad, "A Regional Analysis of Forest Fires in Kentucky, 1970-1989," Annual Meeting, Kentucky Academy of Science and Tennessee Academy of Science, Bowling Green, KY, November 1995.
- Petersen, Albert, "Old Order Mennonite Migration: Allen County, Kentucky," Annual Meeting, Popular Culture Association, Philadelphia, PA, April 1995.
- Prante, Mary, "An Alternative Hypothesis for Quaternary Evolution of the Kansas Landscape." Principal author and presenter; co-authors Wakefield Dort, Jr. and Kevin P. Price. Annual Meeting, Association of American Geographers, Chicago, IL, March 1995.
- Trapasso, Michael, "Water Conservation Systems Developed Centuries B.C.," Annual Meeting, Kentucky Academy of Science, Bowling Green, KY, November 1995.
- Trapasso, Michael, "Indigenous Attitudes, Ecotourism and Mennonites: Examples of Rainforest Preservation/Destruction," Midwestern Association of Latin American Studies Annual Meeting, Bānos, Ecuador, November 1995.

**EXTERNAL GRANTS AND EQUIPMENT DONATIONS - 1995**

<b>NAME</b>	<b>SOURCE</b>	<b>PURPOSE</b>	<b>AMOUNT</b>
S.R. Ahsan	Kentucky Space Grant Consortium	Travel	\$ 860
Glen Conner	Midwest Climate Center	Data Digitization	\$ 2,496
Glen Conner	National Climatic Data Center	Data	\$ 500
Glen Conner	National Climate Center	Data	\$ 726
Glen Conner	National Climate Center	Data	\$ 450
Nicholas Crawford	American Institute of Professional Geologists	Workshop	\$ 2,000
Kenneth Kuehn	American Associates of Professional Geologists	Travel	\$ 800
TOTAL			\$ 7,832

## INTERNAL GRANTS AND EQUIPMENT DONATIONS - 1995

NAME	SOURCE	PURPOSE	AMOUNT
James Davis	Faculty Development	Travel	\$ 200
Stuart Foster	Faculty Development	Travel	\$ 250
Conrad Moore	Faculty Development	Travel	\$ 250
Albert Petersen	Faculty Development	Travel	\$ 185
Chris Groves	Faculty Development	Travel	\$ 150
Chris Groves	WKU International Programs	Travel	\$ 1,000
Mark Lowry, II	Faculty Development	Travel	\$ 250
Michael Trapasso	Faculty Development	Travel	\$ 250
Ken Kuehn	Faculty Development	Travel	\$ 250
David Keeling	Faculty Development	Travel	\$ 250
Chris Groves	Faculty Development	Travel	\$ 200
Nicholas Crawford	Summer Research Fellowship	Research	\$ 5,000
Stuart Foster	Summer Research Fellowship	Research	\$ 5,000
Elizabeth McClellan	Summer Research Fellowship	Research	\$ 5,000
TOTAL			\$ 18,235



## SERVICE TO PUBLIC SCHOOLS AND TEACHERS

- Reza Ahsan            - Ogden College Science Days.  
                           - Presentation on Ethiopia and Sudan,  
                           Beaver Dam Elementary School
- Glen Conner            -Judge, Allen County-Scottsville Middle School Science Fair,  
                           Scottsville, KY, March 1995.  
                           -Judge, Southern Kentucky Regional Science Fair, WKU,  
                           Bowling Green, KY, April 1995  
                           -Toured fifteen students from L.C. Curry school through the  
                           weather station and climate center, WKU, Bowling Green, KY,  
                           April 1995  
                           -Toured twenty "Future Leaders in Agriculture" students in  
                           Kentucky Climate Center, WKU, Bowling Green, KY,  
                           June 1995  
                           -Mentoring Myra Little in preparation of her Allen County-  
                           Scottsville High School's first earth science course offering,  
                           Scottsville, KY, 1995.  
                           -Ogden College Science Days.
- Nick Crawford        -Several talks and field trips on Lost River Cave Valley  
                           -Ogden College Science Days
- James Davis            -Judge, Kentucky Geography Bee, Louisville, KY
- Chris Groves            -Tours and talks to various schools and other groups,  
                           Lost River Cave, 1995
- Wayne L. Hoffman    -Judge, Kentucky Geography Bee, Louisville, KY, April 1995.  
                           -Ogden College Science Days
- David Keeling         -Ogden College Science Days  
                           -Judge, Kentucky Geography Bee, Louisville, KY, April 1995.
- Deborah Kuehn        -Identification of Rocks and Minerals,  
                           L.C. Curry Elementary  
                           -Identification of Rocks and Minerals,  
                           Bristow Elementary 4-H Club  
                           -Identification of Rocks and Minerals,  
                           Lost River Elementary 4-H Club  
                           -Identification of Rocks and Minerals  
                           Warren Elementary 4-H Club  
                           -Ogden College Science Days

Ken Kuehn	-Ogden College Science Days
Elizabeth McClellan	-Ogden College Science Days
Conrad Moore	-Ogden College Science Days
Albert Petersen	-Moderator, Kentucky Geography Bee, Louisville -Ogden College Science Days
Mary Prante	-Lewisburg Middle School Consulting on New World Project -Ogden College Science Days -Super Saturday Program Two Wild Cave Trips
Michael Trapasso	-Ecotourism Lincoln Elementary School, Franklin -Ogden College Science Days -Several tours of weather stations for various schools

## FACULTY ATTENDANCE AT PROFESSIONAL MEETINGS

Institute of British Geographers, Annual Meeting, Newcastle, England, January 1995.  
Keeling.

Kentucky Chapter, Partners of the Americas, Bowling Green, Kentucky, January 1995.  
Lowry.

Association of American Geographers, Annual Meeting, Chicago, Illinois, March 1995.  
Foster, Moore, Prante.

Geological Society of America, Southeastern Sectional Meeting, Knoxville, Tennessee,  
April 1995. Groves, K. Kuehn, McClellan.

Washington Meeting, National Association of Development Councils, April 1995.  
Hoffman.

Fifth Multidisciplinary Conference on Sinkholes and the Engineering and Environmental  
Impact of Karst, Gatlinburg, Tennessee, April 1995. Crawford.

Popular Culture Association, Annual Meeting, Philadelphia, Pennsylvania, April 1995.  
Davis, Petersen.

Green River Basin Conference, Bowling Green, Kentucky, April 1995. Groves,  
Hoffman.

National Speleological Society, Annual Meeting, Blacksburg, Virginia, July 1995.  
Groves.

National Association of Regional Councils, Annual Meeting, Cincinnati, Ohio, June 1995.  
Hoffman.

Fifth Annual Mammoth Cave Science Conference, Mammoth Cave, Kentucky, July 1995.  
Groves.

American Association of State Climatologists, Annual Meeting, Ashville, North Carolina,  
August 1995. Conner.

The Society of Organic Petrology, 12th Annual Meeting, Woodland, Texas, August 1995.  
K. Kuehn.

Geological Society of Kentucky, Annual Fall Field Conference, Hazard, Kentucky,  
September 1995. K. Kuehn.

Alabama Geological Society Annual Field Trip, Alexander City, Alabama, October 1995.  
McClellan.

Eighteenth National Third World Studies Conference, Omaha, Nebraska, October 1995.  
Keeling.

Twenty-sixth Ohio River Valley Soils Seminar, Clarksville, Indiana, October 1995.  
Crawford.

National Council for Geographic Education, Annual Meeting, San Antonio, Texas, October 1995. Petersen.

National Associates of Development Councils, Annual Meeting, Boston, Massachusetts, October 1995. Hoffman

Forty-second North American Meeting of the International Regional Science Association, Cincinnati, Ohio, November 1995. Foster, Keeling.

Annual Meeting of the Midwest Association of Latin American Studies, Bānos, Ecuador, November 1995. Keeling, Lowry, Trapasso.

Kentucky Academy of Science and Tennessee Academy of Science, Annual Meeting, Bowling Green, Kentucky, November 1995. Ahsan, Bingham Conner, Crawford, Davis, Keeling, Foster, Hoffman, K. Kuehn, McClellan, Moore, Prante, Trapasso.

Geological Society of America, National Meeting, New Orleans, Louisiana, November 1995. Groves, McClellan.

Kentucky Chapter, Partners of the Americas, Lexington, Kentucky, December 1995. Lowry.

**PROFESSIONAL WORKSHOPS CONDUCTED,  
PRESENTATIONS AT WORKSHOPS AND  
FIELD TRIPS CONDUCTED**

- |                   |   |
|-------------------|---|
| Glen Conner       | - Computer Demonstration, Computer Science Summer Workshop, Western Kentucky University, July 1995.   |
| Nicholas Crawford | - Co-conducted a Workshop entitled "Applied Karst Hydrology Workshop," American Institute of Professional Geologists, December 1995.<br>- Several Lost River Field Trips.   |
| Christopher Grove | - Co-conducted a Workshop entitled "Applied Karst Hydrology Workshop," American Institute of Professional Geologists, December 1995.<br>- Several Lost River Field Trips.<br>- Co-conducted a workshop on Karst Hydrology at the Annual Meeting National Speleological Society. |
| David Keeling     | - American Geographical Society Lectures, Waterways of Western Europe Study Tour.   |
| Albert Petersen   | - Geography Summer Institute, University of Louisville, Summer 1995.  |

## UNIVERSITY LEVEL COLLOQUIA AND/OR SEMINARS PRESENTED

- Groves, C.G., *A Philosophy of Environmental Protection*, Department of Geology, Huainan Mining Institute, Huainan, China, 1995.
- Groves, C.G., *Karst Landscape Development in the Mammoth Cave Region*. Department of Geology, Huainan Mining Institute, China, 1995.
- Groves, C.G., *Acid-Mine Drainage in Coal Mining Regions: Problems and Solutions*. Department of Geology, Huainan Mining Institute, Huainan, China, 1995.
- Groves, C.G., *Karst Landscape Development in the Mammoth Cave Region*, Institute of Karst Geology, Chinese Academy of Geological Sciences, Guilin, China, 1995.
- Groves, C.G., (with M. Houston and T. Green), *China Experiences*, Ogden College Lecture, Western Kentucky University, Bowling Green, Kentucky, 1995.
- Groves, C.G., *Karst of South China*, Green River Grotto of the National Speleological Society, Bowling Green, Kentucky, 1995.
- Groves, C.G., *Ongoing Research in Karst Hydrogeology, Mammoth Cave, Kentucky*. Department of Geology, Vanderbilt University, Nashville, Tennessee, 1995.
- Keeling, David J., *Twenty-First Century Buenos Aires: Progressive Megacity or Development Disaster?* Geography and Urban Planning Colloquium, University of Maryland, College Park, 1995.
- Keeling, David J., *Derailed! Argentina's Transport Policy in the Era of Global Restructuring*. Guest Lecture in Geography, University of Maryland, College Park, 1995.
- Keeling, David J., *Cabernet to Coca Cola: Challenges to the French Wine Industry in the 1990's*. International Forum, Western Kentucky University, 1995.
- Keeling, David J., *Reconstructing Nations: Argentina in the New World Order*. Geography Colloquium, Portland State University, Portland, Oregon, 1995.
- Keeling, David J., *Buenos Aires, World City Theory, and the Reconstruction of Place*. Department of Geography Tea Series, University of Oregon, Eugene, 1995.
- Keeling, David J., *Rural Development, Accessibility, and the Disneyfication of Place*. Department of Recreation, Tourism Management and Design, University of Oregon, Eugene, 1995.
- Keeling, David J., *Development and Change in the New Argentina*. Department of Geography Public Lecture, Southern Oregon State College, Ashland, Oregon, 1995.
- Keeling, David J., *Bosnia: Common Ground or Deadly Ground?* Department of Journalism, Western Kentucky University, 1995.
- Trapasso, Michael, *Environment and Society: Atmospheric Issues: Geography Inst.for Systems Teachers*, University of Evansville, Indiana, 1995.

## POSITIONS HELD IN PROFESSIONAL ORGANIZATIONS

- |                     |  |
|---------------------|--|
| James Davis         | -World Geography Bowl Committee, Southeastern Division Association of American Geographers   |
| Christopher Groves  | -Chair, Research Advisory Committee, National Speleological Society<br>-Member, Science Committee, Cave Research Foundation<br>-Member, Board of Directors, Central Kentucky Karst Coalition   |
| Wayne Hoffman       | -Chair, Geography Section, Kentucky Academy of Science   |
| David Keeling       | -Secretary & Chair, Geography Section, Kentucky Academy of Science<br>-Chair, Subcommittee on Student Paper Awards, European Specialty Group, Association of American Geographers<br>-Advisory Committee Midwest Association of Latin American Studies |
| Deborah Kuehn       | -Chair, Geology Section, Kentucky Academy of Science   |
| Kenneth Kuehn       | -Secretary/Treasurer, The Society of Organic Petrology<br>-President, Geological Society of Kentucky<br>-President, Geology Section, Kentucky Academy of Science   |
| Mark Lowry, II      | -Vice President and Program Chairman, Midwestern Association of Latin American Studies<br>-President, Midwestern Association of Latin American Studies   |
| Elizabeth McClellan | -Campus Representative, Geological Society of America<br>-Secretary, Geology Section, Kentucky Academy of Science<br>-Chair, Geology Section, Kentucky Academy of Science  |
| Michael Trapasso    | -Biometeorology & Aerobiology Award Committee, American Meteorological Society.  |

## SERVICE ON OFF CAMPUS ADVISORY COMMITTEES

- |                    |   |
|--------------------|---|
| Glen Conner        | <ul style="list-style-type: none"> <li>-Water Availability Advisory Council, Kentucky Natural Resources Cabinet, Division of Water</li> <li>-Alternate Energy Project Review Committee, Kentucky Department of Energy</li> <li>-Committee on Research and Policy, Kentucky Water Resources Research Institute, University of Kentucky</li> </ul>  |
| Nicholas Crawford  | <ul style="list-style-type: none"> <li>-Science Committee, Cave Research Foundation</li> <li>-Kentucky EPSCOR/Environmental Subcommittee</li> <li>-Board of Directors and Vice President, Friends of Lost River</li> <li>-Kentucky Outlook 2000 Public Advisory Committee</li> <li>-Oak Ridge Gaseous Diffusion Plant (K-25) Groundwater Modeling Advisory Team</li> <li>-Science Advisory Panel for Cincinnati Museum of Natural History's upcoming OMNIMAX/IMAX film about caves</li> <li>-Mammoth Cave National Park Association Board of Directors</li> <li>-Warren County Radon Action Committee</li> </ul>  |
| Christopher Groves | <ul style="list-style-type: none"> <li>-Member, Advisory Board, Karst Waters Institute</li> <li>-Member, Scientific Advisory Board for the development of new IMAX film on caves, Cincinnati Museum of Natural History</li> <li>-Member, Board of Directors, Friends of Lost River</li> </ul>   |
| Wayne Hoffman      | <ul style="list-style-type: none"> <li>-Affordable Housing Task Force, City of Bowling Green</li> <li>-BRADD Board of Directors</li> <li>-Chair, Natural Resources Committee, BRADD</li> <li>-Member, Transportation Committee, BRADD</li> <li>-Citizen Member, Ohio River Basin Committee</li> <li>-Board of Directors, Mammoth Cave National Park Association</li> <li>-Board of Directors, Western Kentucky Development Corporation</li> <li>-Executive Committee, WKD Corporation</li> <li>-Tourism Committee, WKD Corporation</li> <li>-Infrastructure Committee, WKD Corporation</li> <li>-Mammoth Cave Biosphere Advisory Committee</li> <li>-Council on Higher Education GIS Committee</li> </ul> |



David Keeling

- Member, Chamber of Commerce International Relations Committee, Bowling Green, Kentucky
- Chair, Subcommittee on the Chamber of Commerce Sister City Program for Santo Domingo de los Colorados, Ecuador
- President & Project Coordinator, Bowling Green Sister City International Committee
- Member, Partners of the Americas, Kentucky - Ecuador

Albert Petersen

- Member, Kentucky Historic Preservation Review Board

### PROFESSIONAL WORKSHOPS ATTENDED

- |                   |   |
|-------------------|---|
| Reza Ahsan        | - "NASA Space Grant Workshop on Remote Sensing of the Environment," Biloxi, MS, December 1995.  |
| Glen Conner       | - "Long Lead Climate Forecasting," National Weather Service, Chicago, IL, February 1995.  |
| Nicholas Crawford | - "Global Positioning System Workshop," University of Kentucky, February 1995.<br>- "HAZWOPER Workshop," Institute for Economic Development, Western Kentucky University, March 1995. |
| Kenneth Kuehn     | - "Scanning Electron Microscope (SEM) Training Workshop," JOEL Corporation, Western Kentucky University, March 1995.  |

### FOREIGN TRAVEL BY FACULTY

- |                  |  |
|------------------|--|
| Reza Ahsan       | -India, May - June 1995  |
| James Davis      | -Mexico and Grand Cayman Islands, July 1995  |
| David Keeling    | -England, January 1995<br>-Ecuador, March 1995<br>-Europe, August 1995<br>-Ecuador, November 1995<br>-Great Britain, December 1995 |
| Mark Lowry       | -Ecuador, November 1995  |
| Michael Trapasso | -Costa Rica, January 1995<br>-Venezuela, July 1995<br>-Ecuador and Galapagos Islands, November 1995                                |

## PROFESSIONAL PUBLIC SERVICE

- Reza Ahsan
- External Examiner for Ph.D. Dissertation - Andhra University, India, as well as Aligarh University India.
  - Referee and evaluator for *American Journal of Islamic Social Sciences*.
  - Talks to various groups in Sheikhpura, India, May/June 1995.
- Glen Conner
- Developed a home page for the Kentucky Climate Center and with University approval, placed it as the **first** Ogden College homepage on the World Wide Web on 17 August 1995
  - State Climatologist for Kentucky. Fulfilled over 900 requests for climatological data and information.
  - Received data from the National Climatic Data Center worth \$500
  - Received data and services from the National Weather Service's Climate Analysis Center worth \$726
  - Received data and services from the Midwestern Climate Center worth \$450
  - Kentucky Climate Center User Survey. The University's Office of Institutional Research conducted a survey of users of the Kentucky Climate Center. Their final report was received in August 1995. Of the 106 questionnaires returned and on a 4 point scale, the quality of the service was rated 3.70, the quality of information was rated 3.72, and the value of the service was rated 3.69.
- Nicholas Crawford
- Assisted Jason Knappinberger with Eagle Scout Project at Lost River Cave.
  - Assisted National Geographic Magazine and their photographer with story about nonpoint source pollution of karst aquifers, January 12-16, 1995.
  - Lecture to 40 high school students on karst and agriculture at WKU, June 19, 1995.
  - Talk about Lost River Cave to State Street Methodist Church.
  - Gave a three hour lecture to Karst Course at Lost River Cave, and led field trip, April 20, 1995.
  - Taught the week-long Karst Hydrology Course in Bowling Green, June 17-24, 1995.
  - Bowling Green Karst Problems field trip for Fred Calitz, Geological Survey, Republic of South Africa, October 13, 1995.
  - Attended numerous meetings, led several field trips for various groups at Lost River Cave.
  - Assisted many individuals, government agencies, industries and consulting firms with information about karst and groundwater problems. Probably an average of 10 free consultations per week.
- Stuart Foster
- Annals of the Association of American Geographers, Reviewer of one manuscript.
  - The Professional Geographer, Reviewer of one manuscript.

- Christopher Groves -Groves, C.G. and N. Shreve, 1995, *Lost River Cave*, Bowling Green Kiwanis Club.  
 -Reviewed seven grant proposals for the program "Fractured Carbonate Rock Geohydrology," U.S. Environmental Protection Agency, Robert S. Kerr Laboratory, Ada, Oklahoma.  
 -Reviewed two proposals for the Hydrological Sciences Program, National Science Foundation.  
 -Provided technical assistance for reviews of two grant proposals dealing with cave exploration, Centre de Documentation et d'Information Scientifiques, Geneva, Switzerland.  
 -Reviewed an article submitted to *Water Resources Research*.  
 -Reviewed two articles submitted to *Journal of Hydrology*.  
 -Reviewed four articles submitted to *Ground Water*.
- Wayne L. Hoffman -Assisted in the preparation of a proposal to attain All American City status for Bowling Green/Warren County. A Chamber of Commerce venture.
- David Keeling -Editor, Intercambio Internacional. Publication of the Latin American Studies Program at Western Kentucky University.  
 -Editor, Newsletter of the Bowling Green-Santo Domingo Sister City Organization.  
 -Reviewer, Environment and Planning A, International Journal of Urban and Regional Research, January, June.  
 -In Search of the Inca: Travels in Peru. Latin American Studies Committee at WKU, Public Lecture Series, Bowling Green Public Library, January 1995.  
 -Ecuador: Green Horizons, Rotary Club, Bowling Green, Kentucky, May, 1995.  
 -Session Chair and Discussant, 18th National Third World Studies Conference, Omaha, October.  
 -Paper Discussant, 42nd North American Meetings of the Regional Science Association International, Cincinnati, November.  
 -Session Chair and Discussant, Annual Meeting of the Midwest Association of Latin America Studies, Baños, Ecuador, November.  
 -Travel Coordinator, Conference Planning Committee for the 1995 Conference of the Midwest Association of Latin American Studies in Baños, Ecuador, November.  
 -Session Chair, 81st Annual Meeting of the Kentucky Academy of Science, Bowling Green, November.  
 -Delegation Leader, Bowling Green Sister City Committee delegation to Santo Domingo, Ecuador, November 1995.  
 -Judge, Graduate Student Competition, Sigma Xi Student Research Conference, Western Kentucky University, Bowling Green, April.  
 -Judge, National Geography Bee, Kentucky State Finals, University of Louisville, April.  
 -Delegation Leader, Bowling Green Sister City Committee delegation to Santo Domingo, Ecuador, March.  
 -Delegation Host, Partners of the Americas Delegation to Bowling Green, from Santo Domingo, Ecuador, May.
- Deborah Kuehn -NSF - EAR: Geology and Paleontology division - review of proposal 1/13/95.  
 -Spring - set up lapidary exhibit and kyanite exhibit in hall display cases.

- Kenneth Kuehn
- Depositional Environments of Lower Pennsylvanian Siliciclastics, Southern Tennessee, Northeast Alabama and Northwest Georgia, H. G. Churuet. For International Journal of Coal Geology, March.
  - Comparative Study of Activated carbons produced from Eastern Kentucky Liptinite - rich Coals, C. Toles and S. M. Rimmer for Organic Geochemistry (an international journal), March.
  - Mr. Geary Schindel, Echerfelder Nashville, earthquake activity in area of Madisonville, KY, landfill site, June 19.
  - Mr. Frank Shipman, Louisville, KY, Oil and gas problems, various dates.
  - Judge John May, Crittendon Co., KY, Evaluation of Ben Clement Fluorspar collection, September.
  - 1995 Antoinette Lierman Medlin Scholarship Committee, United States Geological Survey, Mar-April.
  - 1995 Medlin Field Studies Award Committee, United States Geological
  - Planning Committee for Kentucky's Society of Professional Geologist, expected arrival date 1996.
  - Planning Committee, Geological Society of Kentucky Annual Fall Field Conference.
  - Official minutes and summaries of various meetings.
- Mark Lowry II
- Invited Guest Lecturer at West Point (United States Military Academy), October 1995.
  - Invited Keynote Speaker at Annual Meeting of Partners of the Americas, Lexington, Kentucky, December 1995.
- Elizabeth McClellan
- Co-chaired "Structure and Tectonics" session at the Geological Society of America, Southeastern Section Meeting, Knoxville, Tennessee. April, 1995.
- Conrad Moore
- Review of "Changing Temporal and Spatial Characteristics of Midwestern Hydrologic Droughts" for Physical Geography, John E. Oliver, Climatology Editor. September, 1995.
  - "Landscaping for Backyard Wildlife Habitat." Presentation given to the Twenty-seven members in attendance. Contact person: Carol Henderson.
- Albert Petersen
- Consultant to the Kentucky Attorney General on the U.S. Supreme Court case of the Illinois Boundary.
- Michael Trapasso
- Peer reviewed a manuscript for publication for the Journal of Applied Meteorology.
  - Reviewed the 6th Edition of "Introduction to Meteorology" by Lutgens and Tarbuck for Prentice Hall Publishers.
  - Reviewed the manuscript--"Global Environmental Change and the Human Species" by John J. Hidore, for Simon and Schuster Publishers.
  - Submitted a book review "Biodiversity, Social and Ecological Perspectives" by V. Shiva, Zed Book London and New Jersey, for GeoJournal, Helmstedt, Germany.
  - Temperature and Humidity Data for 1993 through 1995, Lord Corporation Bowling Green, KY.
  - Wrote an article about "Professor as Student" WKU Center for Teaching & Learning.
  - Presentation about the Maya of the Yucatan, Mexico, Dr. P. Quinn, Dept. of Journalism, WKU.
  - OAR Panel for Parents Admission Office, WKU.

- Presentation about the Maya of the Yucatan, Mexico, Dr. P. Quinn, Dept. of Journalism, WKU.
- OAR Panel for Parents Admission Office, WKU.
- Assisted in preparation of a presentation for West Point Military Academy the "Directions in the Field of Geography."
- Bowling Green Mean Temps. in Celsius for July & Dec. Admissions Office, WKU.
- Assisted with the WKU International Day DUC, WKU
- Prepared a Report "The Climate of Corvais," Dr. Janet Colbert, Oregon, Accounting Dept., WKU.
- Presentation concerning the Deforestation of OWA West End United.
- Interview explaining winter storm weather College Heights Herald.
- Interview explaining the advantages of Doppler WKCT Radio Radar.
- Interview discussing the long-range summer forecast, WSMV-AM Radio, Nashville, TN.
- Interview concerning Hurricane Erin G107-FM & WBGN-AM.
- Became a Certified Aviation Weather Observer for the Bowling Green/Warren County Airport (SAWRS) Supplemental Aviation Weather Reporting Service.

## UNIVERSITY AND COLLEGE COMMITTEE ASSIGNMENTS

Reza Ahsan	-Member, University Latin American Studies Committee -Member, University Asian Studies Committee
James Bingham	-Member, University Student Retention Management Committee
Glen Conner	-Likes-Garrison Scholarship Committee
James Davis	-Member, Yeager Scholarship Committee -Member, Sigma Xi Nominating Committee -Chair, Search Committee, V.P. Academic Affairs
Stuart Foster	-Ogden College Curriculum Committee
Christopher Groves	-Ogden College Dean's Advisory Committee -Ogden College Curriculum Committee
Wayne Hoffman	-OCSTH College Curriculum Committee -Chair, Biology Head Search Committee
David Keeling	-Chair, Latin American Studies Program -Faculty Senate, Senator -Chair, subcommittee on Fiscal Affairs, Faculty Senate -Academic Probation Committee Member -Latin American Studies Committee Member -Member, Ogden College Graduate Committee -Member Search Committee, V.P. Institutional Advancement -Member, Faculty /Staff Retiree Committee
Deborah Kuehn	-Academic Council -Rules Committee, Academic Council
Kenneth Kuehn	-President's Special Committee on Salaries and Wages
Mark Lowry, II	-Graduate Student Grievance Committee -Faculty Grievance Committee -Advisor Committee on Faculty Continuance -Military Advising Committee -Latin American Studies Committee -OCSTH Faculty Awards Committee -OCSTH Sabbatical Committee
Conrad Moore	-United Way Committee -Canadian Studies Central Committee -Environmental Studies Committee

Elizabeth McClellan	-University Academic Complaint Committee -University Academic Probation Committee
Albert Petersen	-Chair, University Library Advisory Committee -WKU Libraries Advisory Committee
Mary Prante	-OCSTH Department Representative, Science Days Committee -OCSTH Faculty Awards Committee

### **MASTERS DEGREES AWARDED - 1995-96**

#### **Master of Science in Geography**

Michael Dant	Dr. James Davis, Advisor
Mary Snow	Dr. Conrad Moore, Advisor Thesis Title: "Environmentalism in the United States: An Evolving Perspective."
Richard Snow	Dr. Conrad Moore, Advisor Thesis Title: "Ecology, Economy, and Ecotourism: Sustaining People and the Environment."

#### **Master of Science in City & Regional Planning**

Allen McKee	Dr. Wayne Hoffman, Advisor.
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**DEPARTMENT GRADUATES  
1995**

**Geography Majors**

Abdulla Ali Al-Ghamdi  
Edward L. Brown  
Emily Deven Carigan  
Albert A. Clark  
Shawn Gossett  
Matthew Curtis Grecco  
Derek A. Helm  
Jason Henderson  
Chris Quentin Jackson  
Russell Brian Jones  
Faith Carol Koeck  
Hugh W. Lee  
Amy Renetta Matthews  
Steven Lee Moore  
David Allen Murrell  
Cleatus W. Phillips  
John Joseph Savary  
Katherine Ann Shepherd  
Denise Renai Smith  
Andrew Thomas Spurling  
Maria Ann Summerlin

**Geography Minors**

Ronald K. Barnhill  
William Nathaniel Burton  
Linda Christine Coan  
Whitney L. Daniel  
Jimmy L. Duvall  
Alexander Bryant Everley  
Lance E. Hereford  
Jonathan Hobbs Hoesli  
Andrei Marko Kerpan  
Mark A. Kinney  
John Thomas Kizer  
John Eric Niemeyer  
Jason Neel Stone  
Christopher L. Toms

**City and Regional Planning Minor**

Abdullah Ali Al-Ghamdi  
Edward L. Brown  
Shawn Gossett  
Derek A. Helm  
Jason Henderson  
Russell Brian Jones  
David Allen Murrell  
Cleatus W. Phillips  
John Joseph Savary  
Travis K. Wilson

**Geology Major**

Ronald K. Barnhill  
Jonathan Hobbs Hoesli  
Todd Thomas Johnston  
Andrei Marko Kerpan  
John Thomas Kizer  
Kenneth C. Logsdon  
John Eric Niemeyer  
Jason Neel Stone  
Christopher L. Toms

**Geology Minors**

Lee J. Flores  
Hugh W. Lee  
Amy Renetta Matthews  
Maria Ann Summerlin

**Cartographic & Mapping Tech Minor**

James Harrison Wallace

**Meteorological Technology Minor**

Byron Eric Douglas

**GRADUATE STUDENTS IN RESIDENCE - 1995-96**

Victoria Alapo, University of Ibadan  
Mike Anderla, Northeast Missouri State  
Vincent Arrell, University of Northern Colorado  
Kyle Bearden, Western Kentucky University  
Myra Brandon, Western Kentucky University  
Chris Brown, Western Kentucky University  
Steve Capps, Tennessee Tech University  
Emily Carrigan, Western Kentucky University  
William Clauson, Vanderbilt University  
Michael Dant, Western Kentucky University  
William Davis, Francis Marion University  
Nancy Demaree, University of Louisville  
Robin Diederich, University of Louisville  
Sean Dollman, Western Kentucky University  
Trisha Embry, Western Kentucky University  
Jason Finley, Western Kentucky University  
John Alan Glennon, Texas A & M  
Kiersten Jaggars, Western Kentucky University  
Jonathan Jasper, University of Cincinnati  
Paul Kimble, University of Louisville  
David Kline, Austin Peay University  
Christopher Kozloski, Western Kentucky University  
Ronald Lee, Western Kentucky University  
James Leonard, Norwich University  
Robert Luckabaugh, Clemson University  
Allen McKee, Western Kentucky University  
Berta Mena, Universidad Nacional Autónoma de Nicaragua  
Joe Meyer, Western Kentucky University  
Cathy Morris, Western Kentucky University  
Paul Noble, Morehead State University  
Randall Paylor, Tennessee Tech University  
James A. Russ, Middle Tennessee State University  
Amy Seymour, Western Michigan University  
Mary Snow, Western Kentucky University  
Richard Snow, Western Kentucky University  
Craig Webb, University of Kentucky

## UNDERGRADUATE ENROLLMENT DATA

### Program Enrollment

There was a decrease of 7 students in total program enrollments when comparing Fall 1994 to Fall 1995 data (Table 3). This is a -2.5% decrease. Despite this slight decrease, the long term prospects for increased major/minor enrollments remains positive. Indeed, when comparing Fall 1992 to Fall 1995 data, an enrollment increase of 39 students is noted.

**TABLE 3**  
**HISTORICAL PERSPECTIVE**  
**1992 - 1995**

	Spr '92	Fall '92	Spr '93	Fall '93	Spr '94	Fall '94	Spr '95	Fall '95
<b>Geography - Major</b>	81	92	101	89	95	112	117	120
<b>Geology - Major</b>	40	50	54	60	49	49	45	39
<b>Earth Science - Minor</b>	6	5	4	3	3	5	3	3
<b>Geography - Minor</b>	50	48	58	61	78	64	58	51
<b>Geology - Minor</b>	17	17	16	22	20	21	20	23
<b>City &amp; Regional Planning Minor</b>	9	8	8	11	11	17	28	21
<b>Cartography &amp; Mapping Tech Associate Degree</b>	12	12	11	8	9	5	7	8
<b>Meteorological Technology -- Tech. Associate Degree</b>	11	10	10	11	10	15	9	16
<b>TOTAL</b>	226	242	262	265	275	288	287	281

The geography major, in particular, is prospering. Its present enrollment of 120 students makes our program at Western Kentucky University one of the largest in the country. Preliminary data for 1996 indicate that this growth is continuing and we will continue to expand our base. Most of the major/minor enrollment in geography is concentrated in the Environmental Management Track, the City and Regional Planning Track, the Meteorology Track, the Hydrology and Geomorphology Track, and the Geography Information Systems and Cartography Track. While the geology program has suffered a slight decline in the number of majors, we are confident with the employment of a new faculty member specializing in environmental geology that program enrollment increases will soon be noted.

### Student Credit Hours

Student credit hours were maintained at a high level during 1995. Over 6000 student credit hours were generated for both Spring 1995 and Fall 1995 Semesters (Table 4). During the Fall 1995 Semester a small increase in Geology hours and small decrease in Geography hours were noted when comparing Fall 1994 data.

**TABLE 4**  
**HISTORICAL PERSPECTIVE STUDENT CREDIT HOURS**  
**1992 - 1995**

	Spr '92	Fall '92	Spr '93	Fall '93	Spr '94	Fall '94	Spr '95	Fall '95
<b>Geography</b>	5,054	5,422	4,990	5,268	5,039	5,265	5,233	5,163
<b>Geology</b>	1,330	1,494	1,528	1,314	1,168	1,303	1,105	1,331
<b>Total</b>	6,384	6,916	6,518	6,582	6,207	6,568	6,338	6,494

Upper division student credit hours were maintained at a high level. Geography experienced a small decline in hours compared to the past two years and Geology experienced an increase.

**TABLE 5**  
**UPPER DIVISION STUDENT CREDIT HOURS**  
**1991 - 1995**

	<b>Geography</b>	<b>Geology</b>
<b>Fall - 1991</b>	877	214
<b>Fall - 1992</b>	844	248
<b>Fall - 1993</b>	1,065	290
<b>Fall - 1994</b>	1,026	266
<b>Fall - 1995</b>	972	307

### Student Faculty Ratio

The Geography and Geology Departments student/faculty ratio for 1995 continued to significantly exceed the University's and Ogden College's indices. With a ratio of 25.48, the Department's effort is a full 35% above the University's average. Table 6 details the student/faculty ratio between 1991 and 1995.

**TABLE 6**  
**STUDENT/FACULTY RATIO**  
**FALL SEMESTER 1991 - 1995**

	1991	1992	1993	1994	1995
<b>Geography and Geology</b>	26.8	26.7	26.0	26.7	25.48
<b>Ogden College</b>	19.2	19.8	19.9	18.6	18.52
<b>WKU</b>	19.6	19.5	19.2	18.8	18.81

### Program Modification & Course Development

During the past year, considerable time and effort was expended in reviewing and evaluating the various aspects of Western's blueprint for the future "Moving to a New Level." One of the mandates of the document is a competency test to be administered to program majors in their senior year. This examination would insure that the subject matter and competencies deemed essential by the faculty have been presented and understood by the student. This will allow the University and Department to assure potential employers of the minimum competency level of our students and insert yet another quality control into our curriculum.

Prior to developing the competency examination, a profile of the various skills and attributes for the students majoring in Geology and the students majoring in Geography was required. This profile provides the measure of our and the students success. The profiles for Geology and Geography follow:

#### Geology -- Knowledge and Skills

1. Physical processes of the Earth's surface and interior.
2. Chemical processes of the Earth's surface and interior.
3. Description, classification, and origin of common rocks and minerals.
4. Reading and interpretation of topographic and geologic maps.
5. Application of the scientific method to geological problem solving in both field and laboratory settings.
6. Working knowledge of Kentucky and regional Appalachian geology.

### **Geology -- Related Attributes**

1. Technical report writing.
2. Basics of computerized word processing, spreadsheets, and data management.
3. Individual problem solving and self-reliance.
4. Working with others and appreciation of the concept.
5. Self discipline with appreciation of 'best effort' and timeliness in one's endeavors.

### **Geography -- Knowledge and Skills**

The necessary discipline skills and knowledge are derived from the National Geography Standards developed in October 1994. The 18 standards developed for the discipline area are:

1. How to use maps and other geographic representations, tools, and technologies to acquire, process, and report information from a spatial perspective.
2. How to use mental maps to organize information about people, places, and environments in a spatial context.
3. How to analyze the spatial organization of people, places, and environments on the Earth's surface.
4. The physical and human characteristics of places.
5. That people create regions to interpret Earth's complexity.
6. How culture and experience influence people's perceptions of places and regions.
7. The physical processes that shape the patterns of the Earth's surface.
8. The characteristics and spatial distribution of ecosystems on the Earth's surface.
9. The characteristics, distribution, and migration of human populations on the Earth's surface.
10. The characteristics, distribution, and complexity of the Earth's cultural mosaics.
11. The patterns and networks of economic interdependence on the Earth's surface.
12. The processes, patterns, and functions of human settlement.
13. How the forces of cooperation and conflict among people influence the division and control of the Earth's surface.
14. How human actions modify the physical environment.
15. How physical systems affect human systems.
16. The changes that occur in the meaning, use, distribution, and importance of resources.
17. How to apply geography to interpret the past.
18. How to apply geography to interpret the present and plan for the future.

### Geography -- Related Attributes

1. The ability to present material in a public setting in a coherent and organized manner;
2. The ability to express ideas and concepts in writing using standard University-level English;
3. The ability to function competently in an electronic environment;
4. Leadership ability and the conviction of one's beliefs;
5. Academic honesty, an ethical approach to life, and an understanding of personal responsibility;
6. The ability to work as a contributing member of a team on a research project;
7. The ability to recognize cultural differences, to appreciate them non-judgmentally, and to embrace differences as a means of growing as an individual;
8. A desire to help people and communities to improve their situation, to leave the world a better place than they found it.

### Mammoth Cave Summer Program

The Summer University at Mammoth Cave conducted four courses. The 1995 courses and instructors were:

Karst Geology	- Dr. Arthur Palmer
Karst Hydrology	- Dr. William White & Dr. Nick Crawford
Speleology	- Mr. Roger Brucker
Exploration of Mammoth Cave	- Dr. Stanley Sides

## Sections and Course Enrollment Listings

Sixty-four sections (not including the graduate component in 400 level courses) were offered in the Geography area during the Spring 1995 semester. Student enrollment totaled 1,751. Sixteen sections (not including the graduate component in 400 level courses) were offered in Geology, with an enrollment of 392. Sixty-one sections were offered in Geography during the Fall 1995 Semester, with a student enrollment of 1,836. Geology offered 19 sections with a student enrollment of 473 for the period.

Twelve Geography sections were offered in the first session of the summer term. They generated 111 student enrollments. Four sections in Geology generated 29 student enrollments. Second term sections (8) in Geography produced 105 students.

Detailed section listing for the Spring 1995 Semester, the Summer 1995 Session, and the Fall 1995 Semester follow:

### **GEOGRAPHY ENROLLMENT - SPRING 1995**

		<u>Sections</u>	<u>Total Students</u>
Geog 100	Intro Physical Environ	9	528
Geog 101	Prin Human Geography	5	200
Geog 110	World Regional	7	361
Geog 121	Meteorology	4	154
Geog 200	Intro. Latin America	1	8
Geog 240	Introduction to Planning	1	17
Geog 280	Introduction to Environmental Science	1	17
Geog 300	Scope and Methods	1	18
Geog 315	Cartography	1	21
Geog 350	Economic Geography	1	27
Geog 360	Geography of North America	3	88
Geog 404	Computer Mapping	1	6
Geog 416 (G)	Remote Sensing	1	6
Geog 421 (G)	Advanced Geomorphology	1	8
Geog 422(G)	Climatology	1	22
Geog 423(G)	Transportation	1	19
Geog 451	Geography of Kentucky	1	21
Geog 464(G)	Geography of Europe	1	15
Geog 466(G)	Geography of Africa	1	9
Geog 471	Conservation	1	42
Geog 474(G)	Environmental Planning	1	37
Geog 475(1)	Selected Topics in Geography	2	7
Geog 484	Planning Theory & Application	1	7
Geog 487(G)	Environmental Law	2	25
Geog 488(G)	Rural Planning	1	25
Geog 491(G)	Data Analysis	1	16
Geog 493(G)	Geographic Information Systems	1	18
Geog 495	Internship	1	1
Grog 504	History and Philosophy of Geography	1	1
Geog 510	Selected Topics Geography	3	12
Geog 521	Geomorphology	1	1
Geog 571	Quality of Life	1	3
Geog 580	Advanced Urban Geography	1	8
Geog 595(1)	Planning Practicum	1	3
Geog 599	Thesis	2	4
Geog 600	Maintaining Matriculation	2	4
	<b>Total</b>	<b>64</b>	<b>1,751</b>



### GEOLOGY ENROLLMENT - SPRING 1995

		<u>Sections</u>	<u>Total Students</u>
Geol 102	Intro. Geology	6	211
Geol 111	Physical Geology	1	42
Geol 112	Historical Geology	1	19
Geol 113	Physical Geology Lab	2	36
Geol 114	Historical Lab	1	20
Geol 308	Structural Geology	1	15
Geol 350	Petrology	1	14
Geol 399	Research Problems - Geology	1	1
Geol 440(G)	Hydrogeology	1	25
Geol 460	Sedimentology	1	9
<b>Total</b>		<b>16</b>	<b>392</b>

### GEOGRAPHY ENROLLMENT - SUMMER 1995

		<u>Sections</u>	<u>Total Students</u>
<b>First Term</b>			
Geog 100	Intro Physical Environment	1	28
Geog 101	Prin Human Geography	1	18
Geog 110	World Regional Geography	1	22
Geog 429	Broadcast Meteorology	1	1
Geog 475	Independent Study	2	2
Geog 480(G)	Urban Geography	1	18
Geog 491(G)	Data Analysis	1	15
Geog 495	Planning Internship	1	3
Geog 510	Independent Study	2	3
Geog 595	Planning Practicum	1	1
<b>Total</b>		<b>12</b>	<b>111</b>
<b>Second Term</b>			
Geog 110	World Regional Geography	1	27
Geog 121	Meteorology	1	39
Geog 360	Geography of North America	1	20
Geog 451(G)	Geography of Kentucky	1	14
Geog 475	Independent Study	2	2
Geog 495	Planned Internship	1	2
Geog 510	Independent Study	1	1
<b>Total</b>		<b>8</b>	<b>105</b>

### GEOLOGY ENROLLMENT - SUMMER 1995

		<u>Sections</u>	<u>Total Students</u>
<b>First Term</b>			
Geol 102	Introduction to Geology	1	19
Geol 475 (G)	Independent Topics	3	10
<b>Total</b>		<b>4</b>	<b>29</b>

## GEOGRAPHY ENROLLMENT - FALL 1995

		<u>Sections</u>	<u>Total Students</u>
Geog 100	Intro Physical Enrivons	9	498
Geog 101	Prin Human Geography	7	297
Geog 110	World Regional Geography	8	458
Geog 121	Meteorology	3	128
Geog 122	Aviation Meteorology	1	13
Geog 200	Intro Latin America	1	4
Geog 280	Intro to Environmental Science	1	41
Geog 300	Scope and Methods	1	20
Geog 310	Hydrology	1	23
Geog 315	Cartography	2	36
Geog 328	Climatc Soils and Vegetation	1	18
Geog 350	Economic Geography	1	39
Geog 360	Geography of North America	2	54
Geog 404	Computer Mapping	1	12
Geog 415(G)	Air Photo	1	9
Geog 420(G)	Geomorphology	1	6
Geog 424(G)	Weather Analysis & Forecasting	1	9
Geog 451	Geography of Kentucky	1	22
Geog 452	Field Studies	1	2
Geog 462	Geography of South America	1	13
Geog 471	Conservation	1	19
Geog 475(I)	Selected Topics Geography	1	3
Geog 479	Industrial Commercial	1	15
Geog 480	Urban Geography	1	16
Geog 491(G)	Data Analysis	1	14
Geog 500	Geographic Research	1	7
Geog 502	Field Work	1	8
Geog 504	History & Philosophy	1	13
Geog 505	Biogeography	1	2
Geog 510	Selected Topics Geography	2	14
Geog 550	Advanced Economic	1	1
Geog 571	Quality of Life	1	14
Geog 580	Advanced Urban Geography	1	6
Geog 599	Thesis	1	1
Geog 600	Maintaining Matriculation	1	1
<b>Total</b>		<b>61</b>	<b>1,836</b>

## GEOLOGY ENROLLMENT - FALL 1995

		<u>Sections</u>	<u>Total Students</u>
Geol 102	Intro Geology	5	255
Geol 111	Physical Geology	1	42
Geol 112	Historical Geology	1	21
Geol 113	Physical Geology Lab	3	52
Geol 114	Historical Lab	1	15
Geol 295	Intro to Research Methods	1	1
Geol 310	Hydrology	1	19
Geol 330	Mineralogy	1	16
Geol 370	Stratigraphy	1	17
Geol 399	Research Problems	1	1
Geol 405	Paleontology	1	10
Geol 415(G)	Environmental Geology	1	15
Geol 420	Geomorphology	1	9
<b>Total</b>		<b>19</b>	<b>473</b>

Included in the detailed course section listings are several evening and extended campus offerings. They include:

	<u>Evening</u>	<u>Extended Campus</u>
Spring 1995	Geog 423(G) Geog 466(G) Geog 487(G) Geog 493(G)	Geog 100 - Glasgow Geol 102 - Morgantown Geog 110 - Glasgow Geog 110 - Russellville Geog 360 - Elizabethtown Geog 487(G) - Russellville
Summer 1995		Geog 121 - Glasgow Geog 451(G) - Glasgow Geog 480(G) - Elizabethtown
Fall 1995	Geog 452 Geog 480 Geog 500 Geog 502 Geog 504 Geog 580	Geog 100 - Glasgow Geog 110 - Glasgow Geog 471 - Glasgow Geog 571 - Russellville

Eight sections of Geography and Geology courses were offered in the Community College in 1995. They were:

Spring 1995	Geog 100 Geog 101 Geog 121	2 Sections 1 Section 1 Section
Fall 1995	Geog 100 Geog 101	2 Sections 2 Sections

## STUDENT CO-OP/INTERN PROGRAM - 1995

Name of Student	Major	Employer	(City, State) Location	Sal ary
Jason Henderson	Geography	BRADD	Bowling Green, KY	yes
Terry Adams	Geography	McCoy & McCoy	Madisonville, KY	yes
Daniel Finn	Geography	Recreation Department	Bowling Green, KY	yes
Derek Helm	Geography	Barren River District Health Department	Bowling Green, KY	yes
Russell Jones	Geography	Northern Kentucky Agency	Florence, KY	yes
Thomas Prichard	Geography	BRADD	Bowling Green, KY	no
Victoria Alapo	City & Regional Planning	Southern Action Agency	Bowling Green, KY	yes
Edward Brown	Geography	BRADD	Bowling Green, KY	yes

## STUDENT AWARD WINNERS - 1996

### OUTSTANDING SENIOR

- Geography** - Debra D. Kreitzer
- Geology** - Shelly K. Forbis

### OUTSTANDING GRADUATE STUDENTS

- Geography** - Mary Snow
- Richard Snow

### STUDENT PUBLICATIONS

- Bearden, Kyle and Chris Groves. "Use of Geographical Information Systems in the Study of Karst Groundwater Flow at the Drainage Basin Scale," *National Speleological Society Bulletin*, 1995, Vol. 57, pp. 57.
- McDonald, Kenneth W. "Inner-City Revitalization: Bowling Green, Kentucky." *Proceedings*, Geography Section, Annual Meeting, Kentucky Academy of Science, 1994, 1995, pp. 32-42.
- Murrell, David. "Transportation Analysis of Traffic Accidents in Kentucky." *Proceedings*, Geography Section, Annual Meeting, Kentucky Academy of Science, 1994, 1995, pp.48-59.
- Slunder, Robin. "Market Delimitation Analysis for Hudson's Tool and Equipment Repair, Bowling Green, Kentucky: An Application of Geographic Information Systems in Marketing Decision Making." *Proceedings*, Geography Section, Annual Meeting, Kentucky Academy of Science, 1994, 1995, pp.60-73.
- Snow, Mary. "Deaths and Injuries from Lightening in Kentucky: Analysis by Location." *Proceedings*, Geography Section, Annual Meeting, Kentucky Academy of Science, 1994, 1995, pp.74-87.
- Snow, Richard. "The Solstices and Daily Normal Maximum and Minimum Temperature Logs." *Proceedings*, Geography Section, Annual Meeting, Kentucky Academy of Science, 1994, 1995, pp.88-101.
- Villalobos, Patricia. "Interregional Migration in Peru." *Proceedings*, Geography Section, Annual Meeting, Kentucky Academy of Science, 1994, 1995, pp.102-126.

## STUDENT PRESENTATIONS

- Forbis, Shelly, Will Clauson and Nick Crawford. "Potential Groundwater Contamination of the Karst Aquifer under Bowling Green, Kentucky from Spills of Hazardous Chemicals being Transported along Railroads and Highways," Annual Meeting, Kentucky Academy of Science and Tennessee Academy of Science, Bowling Green, KY, November 1995.
- Kaletsky, Kelly and Michael Trapasso. "Food Preparation Activities and the Microclimate Within Mammoth Cave, Kentucky." Poster Session, Sigma Xi Research Conference, WKU, April 1995.
- Kreitzer, Debra. "Deseret: Mormons and Environmental Policy." Annual Meeting, Kentucky Academy of Science and Tennessee Academy of Science, Bowling Green, KY, November 1995.
- McDonald, Kenneth W. "The Effects of Military Maneuvers on Soil Structure Breakdown? Wind Erosion at the National Training Center, Fort Irwin, CA." Sigma Xi Research Conference, WKU, April 1995.
- Mena, Berta. "The Central American Common Market: An Alternative to Achieve Growth?" Annual Meeting, Kentucky Academy of Science and Tennessee Academy of Science, Bowling Green, KY, November 1995.
- Palmer, Robert. "Can Switzerland be a Geopolitical Island." Annual Meeting, Kentucky Academy of Science and Tennessee Academy of Science, Bowling Green, KY, November 1995.
- Polanski, Thomas and David Keeling, "Mapping Growth and Change in Buenos Aires, Argentina." Poster Session, Sigma Xi Research Conference, WKU, April 1995.
- Slattery, Timothy and Nick Crawford. "Microgravity Investigation of a Sinkhole Collapse under a Bowling Green, Kentucky Building." Poster Session, Sigma Xi Research Conference, WKU, April 1995.
- Slunder, Scott and Nick Crawford. "Karst Groundwater Flow at a Toxic Waste Site Located on Mississippian Carbonate Rocks along the Highland Rim of Middle Tennessee." Poster Session, Sigma Xi Research Conference, WKU, April 1995.
- Snow, Mary. "Microclimate and Wildflowers of South Central Kentucky." Sigma Xi Research Conference, WKU, April 1995.
- Snow, Mary. "Federal Land Policy and the Wise Use Coalition," Annual Meeting, Kentucky Academy of Science and Tennessee Academy of Science, Bowling Green, KY, November 1995.
- Snow, Richard. "Maximizing Rural Tourism: Horse Cave, Kentucky." Annual Meeting, Kentucky Academy of Science, Bowling Green, KY, November 1995.
- Snow, Richard, "Correlations between Climate and Human Physiography: Weather-Related Triggering of Migraine Headache Events," Sigma Xi Student Research Conference, WKU, April 1995.

**FACULTY AND GRADUATE STUDENT SEMINARS  
FALL 1995**

- |                 |   |
|-----------------|---|
| August 24, 1995 | General Introduction of all Faculty/Students  |
| September 7     | Dr. Deborah Kuehn<br>"Physical and Chemical Characteristics of an Offshore<br>Transgressive Peat on San Salvador, Bahamas: Evidence That<br>Sea Level is Rising?" |
| September 21    | Dr. Stuart Foster<br>"The Diffusion of Physicians in Kentucky Between 1970<br>and 1990."  |
| October 12      | Dr. Michael Trapasso<br>"Weathered Landscapes-Battered Seascapes: Geomorphology<br>in Australia."   |
| October 26      | Michael Dant<br>"Regional Water Supply Planning: A Case Study in the Green<br>River Area Development District."   |
| November 9      | Sean Dolman<br>"A Geologic Investigation of the Chuniespoort Group in<br>Southern and Western Transvaal, South Africa."   |
| November 30     | Dr. Conrad Moore<br>"Regional Drought Equilibrium in the United States,<br>1896-1995."  |
| December 7      | Dr. Mark Lowry, II<br>"The Colorado Indians of Ecuador: A Culture in Transition."   |

**FACULTY AND GRADUATE STUDENT SEMINARS  
SPRING 1996**

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|------------------|--|
| January 18, 1996 | Dr. David J. Keeling<br>"Land-Use Planning in Britain and France: A Comparative Analysis."   |
| February 1       | Dr. Albert Petersen<br>"Old Order Mennonite Migration: Allen County, Kentucky"   |
| February 22      | Allen McKee<br>"Incorporating Global Positioning System (GPS) Data into Maps Derived from Air Photographs."                                    |
| March 8          | Professor Albina Lara<br>"Basis for the Sustainable Development of Complex Fluvio-Maritime Areas: The Rio de la Plata Region as a Case Study." |
| March 28         | Richard Snow<br>"Ecology, Economy, and Ecotourism: Sustaining People and the Environment."   |
| April 4          | Berta A. Mena<br>"The Central American Common Market: An Alternative to Achieve Growth?"   |
| April 18         | Jason S. Finley<br>"The Social Polarization of Louisville: An Analytical Approach."  |
| April 25         | Mary Snow<br>"Environmentalism in the United States: An Evolving Perspective."   |