

Vitae for W.F. Kean
November 2008 abbreviated

William F. Kean, Jr.
Education

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| 1966 | Canisius College, Buffalo, New York. Bachelor of Science degree in Physics. |
| 1973 | University of Pittsburgh, Pittsburgh, Pennsylvania, Ph.D. Earth and Planetary Sciences. Course work included general courses in geology and geophysics, with a major concentration in magnetism and a minor concentration in seismology. |

Positions held

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| 1966 | Woods Hole Oceanographic Institute, Woods Hole, MA. Scientist on the research vessel Atlantis II. Primary duties involved collecting and reduction of data, and maintenance of the equipment, summer of 1966 |
| 1967 | Kennicott Copper Corp., Salt Lake City, Utah. Exploration geophysicist. Conducted magnetic surveys and helped in field testing magnetotelluric equipment during the summer. |
| 1973 | Instructor of Geosciences, Lock Haven State College, Lock Haven, Pennsylvania. Taught Introduction to Earth Science, and Geomorphology |
| 1974 | Instructor of Geophysics, University of Wisconsin-Milwaukee and Associate of the Center for Great Lakes Studies. |
| 1975 - 1982 | Assistant Professor of Geosciences, University of Wisconsin-Milwaukee and Associate of the Center for Great Lakes Studies. |
| 1982 – 1999 | Associate Professor of Geosciences, University of Wisconsin-Milwaukee and Associate of the Center for Great Lakes Studies |
| 1999- present | Professor of Geosciences |
| 1988-1992 | Chairman, Department of Geosciences, University of Wisconsin Milwaukee |
| 1992 – 1998 | Associate Director, Center for Mathematics and Science Education Research, School of Education, University of Wisconsin-Milwaukee (primary duties were to oversee the Science for Teachers program. This was a series of science |

courses for in-service teachers offered off campus)

2004-2005 Associate Director, Center for Mathematics and Science Education Research, School of Education, University of Wisconsin-Milwaukee.

Publications since 1990

1. Kean, W. F., Voltz, C., 1991, Paleomagnetism of Rocks at the Ordovician-Silurian Contact in Eastern Wisconsin Geoscience Wisconsin 14:53-63.
2. McClean, R., and Kean, W.F., 1993, Contributions of Wood Ash Magnetism to Archaeomagnetic Properties of Fire Pits and Hearths. Earth and Planetary Science Letters, 119:387-394.
3. Rovey, C., and Kean, W., 1996, Pre-Illinoian Glacial Stratigraphy in North-Central Missouri, Quarternary Research, 45,17-29.
4. Kean, W.F., Ahler, S., Fowler, M., Wolfmann, D., 1996, Archaeomagnetic Record from Modoc Rock Shelter, Illinois, for the Time Range of 6200 to 8900 B.P. Geoarchaeology, Vol. 12,93-115.
5. Sverdrup, K., Kean, W.F., Herb, S. Bruchardt, S., Friedel, R., 1997, Gravity Signature of the Waukesha Fault, WI. Geoscience Wisconsin, Vol.16, 47-54.
6. Bellomo, R.V. and Kean, W.F., 1997, Evidence of hominoid-controlled fire at the FxJ20 site complex, Karari Escarpment. In Koobi Fora Research Project Volume 5: Plio-Pleistocene Archaeology, ed. by Glenn L. Isaac, Oxford: Clarendon Press, pp 224-233.
7. Kean, W.F., Chan, L., and Williams, I., and Feeney, J., 1997, Paleomagnetism of the Keweenaw Age Chengwatana Volcanics, NW Wisconsin. Geophysical Research Letters, vol. 24, pp 1523-1526.
8. Wirth, C., Cordua, W., Kean, W., Middleton, M., and Naiman, T., 1998. The Geology of the Southeastern portion of the Midcontinent Rift System, Eastern Minnesota and Western Wisconsin. Institute on Lake Superior Geology Proceeding, Vol. 44 Part 2 Field Trip Guidebook, pp33-75.
9. Rovey, C. and Kean, W., 2001, Paleomagnetism of the Moberly Formation, Northern Missouri, Confirms a Regional Magnetic Datum within the Pre-Illinoian Glacial Sequence of the Midcontinental USA, Boreas , 30, pp 53-60.
10. Gajdardziska-Josifovska, M., McClean, R., Schofield, M., Sommers, C., and Kean, W., 2001, Discovery of Nanocrystalline Botanical Magnetite. European Journal of Mineralogy, 13, pp. 863-870.
11. McClean, R., Schofield, M., Kean, W., Sommers, C., Roberson, D., Toth, R.,

Gajdardziska-Josifovska, M.,2001, Botanical Iron Minerals: Correlation between Nanocrystal Structure and Modes of Biological Self-assembly, European Journal of Mineralogy, 13,pp.1235-1242.

12. Rovey, C., Bettis , E., Kean, W., 2003, Position of the Early/Middle Pleistocene Boundry within the Pre-Illinoian Alburnett Formation, Eastern Iowa, USA., Quaternary Research, In review.
13. Rovey, C., Kean, W., Atkinson, L.,2004, Paleomagnetism of Sediments Associated with the Atlanta Formation, North-Central Missouri, USA., Guidebook for Field Trips, 18th Biennial meeting of the American Quaternary Association. Kansas Geological Survey, Open-file Report 2004-33. pp. B-1-B-14.
14. Kaufmann, K., and Kean, W., 2002, Archaeological analysis at Aztalan State Park (47JE1) using geophysical techniques to interpret prehistoric landscape features, Wisconsin Archaeological Society Journal. (published Sept 2004)
15. Kean, W., 2003, Distribution of magnetic sands on Lake Michigan beaches near Milwaukee WI, Michigan Academy of Sciences, Arts and Letters, v.35, n.4, . Pp. 479-491.

Conference proceedings and published abstract SINCE 1990

1. Kean, W.F. and Schneiker, R., 1990, Paleomagnetism of Baraboo Interval Rocks in Wisconsin. Institute on Lake Superior Geology 36th Annual Meeting, Thunder Bay, Ontario.
2. Bodus, T. and Kean, W.F., 1990, Magnetic Survey of the Niagara Fault System in Northeastern Wisconsin and Northwestern Upper Peninsula Michigan. Institute on Lake Superior Geology 36th Annual Meeting, Thunder Bay, Ontario.
3. Feeney, J. and Kean, W.F., 1990, Paleomagnetism of Keweenawan age basalts of the Chengwatana Volcanic group in the St. Croix Falls and Frederick - Miltown area of Polk County, WI. Institute on Lake Superior Geology 36th Annual Meeting, Thunder Bay, Ontario.
4. Kean, W.F., 1992, Magnetic Studies in the St. Croix Falls area Wisconsin. Institute on Lake Superior Geology, 38th Annual Meeting, Hurley, WI.
5. Kean, W.F., Wolske, R., Chan, H., and LeDuc, J., 1993, Magnetic Studies of the Keweenawan Age Chengwatana Lava Flows Near Dresser Wisconsin. Institute on Lake Superior Geology 39th Annual Meeting, Eveleth, MN.
6. Kean, W.F., Chan, L., LeDuc, J. and William, I., 1993, A Possible New Magnetic Reversal in the Middle Keweenawan Chengwatana Lava Flows, Northwestern Wisconsin, Geological Society of America Annual Meeting, Boston, MA.

7. McClean, R., Kean, W.F., and Fredlund, G., 1994, Plant Magnetism: A Possible Contributor to Soil Magnetism. Geological Society of America Annual Meeting, Seattle, WA. Oct. 1994.
8. Kean, W.F., 1994, Paleomagnetism of a Basaltic Dike in the 1500 Ma. Waterloo Quartzite. Institute on Lake Superior Geology 40th Annual Meeting, Houghton, MI.
9. Kean, W.F., Williams, I. Chan, L., and *Feeney, J., 1995, Magnetism of the Kewenawan Age Chengwatana Volcanics N.W. Wisconsin. International Geologic Correlation Program #332 Meeting, Duluth, Mn. August 26, 1995. Proceedings pp.77-78.
10. Thomas, C. Kean W, and Luther, F. 1998. Paleomagnetic studies of a Proterozoic Porphyritic Diabase dike, Pifher and Irwin Townships, Lake Nipigon District Ontario. Institute on Lake Superior Geology, Proceeding Vol. 44, Part I, p. 119., Minneapolis, MN.
11. Schaper, D. Suess, W, Katzer, L, and Kean, W. 1998. Additional Paleomagnetic results for a 1500 MA Mafic dike at Waterloo, WI. 1998, Institute on Lake Superior Geology, Proceeding Vol. 44, Part I, p. 109, Minneapolis, MN.
12. Schaper, D. Suess, W. and Kean, W. 1998, Paleomagnetic studies of a 1500 MA Mafic dike at Waterloo, WI. Wisconsin Undergraduate Field Conference, Eau Claire, WI. Sept. 1998.
13. McClean, R., Gajdardziska-Josifovska, M., Kean, W., Schofield, M., Sommers, C., Roberson, D., Toth, R., 1999, Evidence of Magnetite in Plants and it's Possible Contribution to Soil Magnetism. Spring Meeting AGU, Boston MA.
14. Schaper, D., Kean, W., 1999, Multiple Magnetic Directions in a Proterozoic Dike near Waterloo, Wisconsin. Fall Meeting AGU, San Francisco, CA.
15. Kean, W., Luther, F. and **Schaper, D., 2000, Additional Paleomagnetic Studies of a Proterozoic Diabase Dike, in Pifher and Irwin Townships, Lake Nipigon District, Ontario. Institute on Lake Superior Geology, Proceedings Vol.46, Part 1, p. 28.
16. Gajdardziska-Josifovska, M., Schofield, M., McClean, R., Kean, W., and Sommers, C., 2000, Discovery of Botanical Iron Biominerals by Electron Diffraction and Microscopy. Acta Mineralogica - Petrographica, Szeged, XLI, Suppl. B, pp. 30-31. Biogenic Iron Minerals, Tihany, May 2000, Hungary.
17. Kelly, C., and Kean, W., 2000, Magnetic and Mineralogical Investigations of Phyllites from the Baraboo area, WI., 37th annual AIPG National meeting, p.25, Milwaukee WI. (First place prize for an undergraduate poster paper)
18. Atkinson, L., and Kean, W., 2000, Magnetic properties of Pre-Illinoian Tills from Northern Missouri. 37th Annual AIPG National Meeting, p.23, Milwaukee WI.
19. Kean, W.F. and Kelly, C. 2001, Rock Magnetic Studies of Phyllite Layers from Baraboo Interval Rocks in Wisconsin, Abstracts with Programs, GSA Annual

Meeting, 33, p. A-143.

20. Atkinson, L., Kean, W., and Rovey, C., 2001, Remanent Magnetism of Pre-Illinoian Tills and Sediments from Northern Missouri, GSA Abstracts with Programs, 33, 4, p.A-4, NCGSA meeting Bloomington-Normal, Ill.
21. Kelly, C., and Kean, W., 2001, Magnetic and Mineralogical Investigations of Phyllite Layers from the Baraboo Area, Wi., GSA Abstracts with Programs, 33, 4, p.A-9, NCGSA meeting Bloomington-Normal, Ill.
22. Peychal, C., Kean W., and Schaper, D., 2001, Magnetic Survey near Waterloo Wisconsin, Institute on Lake Superior Geology proceedings, 47th annual meeting Madison, Wi. v.47, part 1, p.79.
23. Gajdardziska-Josifovska, M., Schofield, M., , Roberson, D., McClean, R., Kean, W., and Sommers, C., 2002, Botanical Iron Biominerals: Electron Diffraction and Microscopy Identification, Mineralogical Society of America Meeting, Montreal On.
24. Harris, Avigail and Kean, W.F., 2002, Distribution of Magnetic Sands on the Lake Michigan Shoreline near Milwaukee WI. GSA Abstracts with programs, Vol. 34, no. 2, p A-86.
25. Rovey, C. W. II, Bettis, E. Arthur III, and Kean, W.F., 2002, Position of the Matuyama-Brnes Paleomagnetic Datum within the Pre-Illinois Albarnet Formation, Eastern Iowa. GSA Abstracts with programs, Vol. 34, no. 2, p. A-99.
26. Kean, W.F., 2003, Distribution of magnetic Sands on Lake Michigan Beaches, Michigan academy of Sciences and Arts, Holland Michigan
27. Mumpy, A., Kean, W.F., Isbell, J., and Jol, H., 2003, Sedimentology of a modern braid bar in the Wisconsin River near Spring Green, Wisconsin: analysis using ground-penetrating radar, GSA- North Central Section, Kansas City, MO. March 2003.
28. Mumpy, A., Isbell, J., Kean, W.F., and Jol, H., 2003, Sedimentology of a modern braid bar in the Wisconsin River near Spring Green, Wisconsin: analysis using ground penetrating radar, GSA National Meeting, Seattle WA, Nov 2003, Seattle WA.
29. Kean, W.F., 2004, Magnetic Susceptibility Anisotropy and Remanent magnetism of Quartzite and Phyllite from Baraboo Wisconsin, (abstract); Institute on Lake Superior Geology proceedings, 50th Annual Meeting, Duluth MN, v.50, part1, p.96-97.

30. Kaufmann, K., Kean, W.F., Jol, H., Mumpy, A., 2004, Archaeological geophysical investigations at a Late woodland Effigy Mound site, Jefferson Co. WI, GSA annual meeting, Denver CO.
31. Atkinson, L.A., and Kean, W.F., 2004, Electrical Resistivity of a site in Vilas County Wisconsin. 28th Annual Meeting, AWRA March 2004, Wisconsin Rapids, WI. P.23

Non-refereed publications since 1990

1. Kean, W. F. and Enochs, L., 1998, Final report for Eisenhower Professional Development Program Grant #929, Field Geology for Urban Elementary Teachers: Teaching Students Outside the Walls of the Classroom, 52 pp.
2. Kean, W. F. and Enochs, L. 1999, Final report for Eisenhower Professional Development Program Grant # 98-1181, Field Geology for Urban Middle School Teachers: Teaching Students Outside the Classroom, 72pp.
3. Kean, W. F. and Enochs, L., 2000, Final report for Eisenhower Professional Development Program Grant # 99111, Field geology for Urban K-3 Teachers, Teaching Students Outside the walls of the Classroom, 60 pp.
4. Posnanski, T. and Kean, W.F., 2000, Final report for AGI grant

Invited lectures

U.W. Madison, 1984, Paleomagnetism of Tills.

Canisius College, 1987, Electrical Methods In Geophysics.

Univ. of Buffalo, 1987, Paleomagnetism of Precambrian Granites in Wisconsin.

U.W. River Falls, 1990, Paleomagnetism of the Chengwatana Lava Flows.

Northern Illinois Univ., 1994, Magnetism of the Chengwatana Lava Flows, N.W Wisconsin.

U.W. Oshkosh, 1997, Paleomagnetism of Wisconsin Rocks.

Research in progress

a. Paleomagnetism of Tills. The second area of active research is in conjunction with Prof. Charles Rovey at Southwestern Missouri State University. We have worked together for the past 8 years to define the lithologic and magnetic characteristics for Pre-illinoian tills in Iowa and Missouri. To date we have documented that a polarity reversal provides a regional correlation marker for these tills. We have also identified a polarity reversal occurring at the time of deposition of one of the lower tills. This provides a significant polarity record for researchers looking at the reversal mechanism of the Earth's magnetic field.

b. Paleomagnetism of Proterozoic Rocks in Wisconsin. Over the past number of years my students and I have presented papers related to the magnetic characteristics of Proterozoic intrusive rocks in south central Wisconsin (Schaper and Kean, 1999).

Grants, contracts and research awards

External Funds

1. Department of the Interior, Office of Water Resources Research.
\$13,141, October 1, 1977 - September 30, 1978 (with D.S. Cherkauer).
Hydrochemical and geophysical investigations of effect of fly ash on ground water. Renewed October 1, 1978 - September 30, 1979, \$14,675.
2. National Geographic Society. \$14,920, November 1980 - August 1981. Vertebrate paleontology and stratigraphy of Cenozoic deposits in Nepal. (Member of investigating team under direction of Dr. Jens Munthe.)
3. National Geographic Society. \$500, funds for liquid helium to measure Ellesmere Island samples of R. West, 1980.
4. N.S.F. \$19,000, February 1980 - July 1981. Paleomagnetism of Sedimentary Rocks at the Ordovician-Silurian Boundary in parts of Wisconsin, Iowa and Illinois.
5. U.S. Bureau of Mines. \$32,000, July 1, 1980 - May 31, 1982.
Evaluation of Geophysical Surface Methods for Measuring Hydrological Variables in Fractured Rock Units. PI's R. Taylor and W. Kean.
6. Earth Tech Inc., Baltimore, MD. \$6,000, September 1 - December 30, 1983. Evaluation of Geophysical Methods Used in Landfill Studies.
7. Paleomagnetism of Tills in Central Missouri, 1994, \$400 for analysis of samples for C. Rovey
8. Paleomagnetic measurements of Tills in Central Missouri, 1996, \$1100 for analysis of samples for C. Rovey, Southwest Missouri University.

9. Paleomagnetic measurements of tills from Iowa and Missouri, 1997, \$400. Southwest Missouri State University.
10. Paleomagnetic measurements of tills from Iowa and Missouri, 1998, \$300, Southwest Missouri State University.
11. Paleomagnetic Studies of Cave Sediments from Missouri, 2004, \$650, Southwest Missouri State University

Internal Funds

1. UWM Graduate School, \$4,500, 1980-1981. Paleomagnetic study of tills from Valders and Two Creeks, Wisconsin.
2. UWM Graduate School, \$4,764, 1981-1982. Continued paleomagnetic studies of tills from Two Creeks and Valders, Wisconsin.

EDUCATIONAL ACHIEVEMENT

Courses taught

Introduction to the Earth	Geology 100
Earth, Air, Fire and Water	Geology 105
Big Ideas in Science	NS 181
Earth Science for pre-Ed Majors	Geology 185
UROP program seminar	NS191
Freshman Seminar	Geology 194
Geology of Wisconsin	Geology 208
Introduction to Geophysics	Geology 316
Honors Seminar	Geology 381
Geology for In-Service Teachers	Geology 405
Geophysics Land Lab	Geology 660
Exploration Geophysics	Geology 661
Undergraduate Seminar	Geology 694
Independent Reading	Geology 699
Gravity and Magnetism	Geology 765
Electrical Methods	Geology 768
Seminar in Geophysics	Geology 971
Master's Thesis	Geology 990
Doctoral Thesis	Geology 997
Advanced Independent Reading	Geology 999

Undergraduate and graduate research projects, theses and dissertations directed since 1990

Masters theses, and PH.D. dissertations

1. J. Feeney. M.S., May, 1990, Paleomagnetism of Keweenawen Age Basalts of the Chengwatana Volcanic Group in Polk County, Wisconsin.
2. R.J. Bellomo. Ph.D., May, 1990, (Anthropology with J. Harris) Actualistic Studies of Fires and Their Magnetic Signature.
3. T. Bodus. Ph.D., May 1992, Paleomagnetic and Ground Magnetic Assessment of the Niagara Fault System in Northeastern Wisconsin and Western Upper Peninsula Michigan.
4. R. McClean, M.S., Dec 1996, Plant Magnetism and It's Possible Contribution to Soil Magnetism
5. C. Lee, M.S. May 1997, D.C. Resistivity Study of a Section of the Milwaukee River (with R. Taylor)
6. C. Peychal, M.S. Dec.2000 , Magnetic Analysis of the Crystalline Basement in the Vicinity of Waterloo, Wisconsin.
7. A. Mumpy, MS, 2004, Sedimentology of a modern braid bar in the Wisconsin River near Spring Green, Wisconsin: analysis using ground-penetrating radar
8. L.A. Atkinson, M.S. May 2005, Electrical Resistivity Survey of the Catherine Wolter Wilderness Area in Vilas County, Wisconsin: An Interpretation of the Local Glacial Stratigraphy.
9. K.E. Kaufmann, Ph.D., May 2005, Effigy mound sites as cultural landscapes: A Geophysical Spatial Analysis of Two Woodland Sites in Southeastern Wisconsin.

Publications oriented toward teaching.

Presentations at Professional meetings with published Abstracts

1. Walters, W. and Kean, W.F., 1990, Consolidated Math Science Curriculum for Elementary Teachers. North Central Geological Society of America Meeting, MaComb, IL.
2. Kean, W.F. and Enochs, L., 1997, Field geology for Urban elementary Teachers, North Central Geological Society of America Meeting, Madison WI. GSA

Abstracts with Programs, P.69

3. Enochs, L. and Kean, W.F., 1997, The effects of in-service on elementary teachers beliefs about teaching earth science in the field. School Science and Mathematics Association meeting, Milwaukee, WI, Nov.1997
4. Enochs, L. and Kean, W.F. 1998, Field Geology for teachers: An Evaluation Study, Association for Education of Teachers of Science, Minneapolis, MN. Jan 1998.
5. Enochs, L. and Kean, W.F. 1999, Field Geology for Elementary Teachers: A Teacher Enhancement Study, Annual meeting of the Association for the Education of Teachers of Science, Austin TX, Jan 15,1999
4. Kean, W.F. and Posnanski, T.J., 2000, Keeping in touch after an Earthcomm Workshop, The use of the Web Board, Northeastern Section of the Geological Society of America, New Brunswick NJ. March 2000.
7. Kean, W. and Wisniewski, J., 2001, Webboard and Beaches: Earth Science for Pre-Education Majors, GSA Abstracts with Programs, 33, 4, p.A-43, NCGSA meeting Bloomington-Normal, Ill.
5. Holmes, T. Lewis, J. and Kean, W., 2001, Big Ideas in Science: A first course for Pre-service teachers, American Chemical Society National Meeting.
6. Wisniewski, J., Kean, W.F., Berg, C.A., 2001, Earth Science For Urban Pre-Education Majors, Abstracts with Programs, GSA annual Meeting , 33, p..A-178
7. Hagedorn, E., Kean, W., Holme, T., Wisniewski, J., Posnanski, T., 2002, Big Ideas in Science: Preliminary Evaluation of a Collaboratively Developed General Education Course for Elementary Education Majors. AETS Annual International Conference, Charlotte, NC.
8. Kean, W. and Wisniewski, J., 2002, Urban Earth Science In Milwaukee, GSA meeting, Denver Co.
13. Kean, W., Ajiro-tutu, C., Loss, C., and Cartier,2003, J.Interaction between School of Ed and College of Letters and Sciences on content proficiency for Pre-ed majors at UWM Teacher Quality Enhancement 2003 Project Directors Conference, Los Angeles CA.

Field trip guides centered on local geology, primarily for teachers and students in southeastern Wisconsin.

1. Kean, W. 1997, Field Guide to Lake Michigan Beaches. This field guide provides detailed information about beaches from Doctors Park to Bender Park. It is a revised version of the 1995 Wisconsin Undergraduate Field Conference Field Guide.
2. Kean, W. 1999, Seven visits to Lake Michigan Beaches, A seventeen minute video

that documents the changes at two Lake Michigan beaches during a one year period. This is designed as a supplement for teachers at all levels who may use the Lake Michigan Shoreline for field trips.

3. Kean, W and Purchura, M., editors, 1999, Community as Classroom, a Field Guide to Environmental Education Sites in S.E. Wisconsin, CESA#1 publication.
4. Kean, W., Grundl, T and Hubbard , N., 2000, Milwaukee's Buildings and Builders, a Walking Tour Highlighting the Geology and Architecture of Downtown Milwaukee buildings. Preliminary edition prepared for the National Science Teachers Association (NSTA) meeting, Oct 2000. This project will eventually be a web based field guide designed for geology and architecture students. It will also be available for use by community groups such as Historic Milwaukee.
5. Kean, W.F., and Hanger, Rex, (editors), 2004, 29th Wisconsin Undergraduate Geology Field Conference, Field Guide. 120 pp.

Published papers relating to education

1. Kean, W. and Enochs, L., 2001, Field Geology of K-8 Teachers, Journal of Geoscience Education, September 2001.
2. Kean, W., Posnanski, T. and Wisniewski, J., 2004, Urban Earth Science in Milwaukee Wisconsin, Journal of Geoscience Education. V. 52, n.5, P431-437.

Web based field trips

1. Kean, W., and Kennesick, K., 2000, When Glaciers ruled Wisconsin; a half day field trip for the National Science Teachers Association Meeting in Milwaukee, Oct 2000, visit the web page at www.uwm.edu/~wkean/ - field trip/ glacial trip
2. Berg, C., and Kean, W.F., 2000, Virtual Field trips of Lake Michigan Shoreline. This is an online field guide to the Lake Michigan Shoreline. Visit it at www.uwm.edu/~wkean/ -field trips/ Lake Michigan Shoreline

Grants related to teaching and curriculum development

1. Project Best, Eisenhower Professional Development Program Grant, \$50,000, 1990-1992 Program to improve science teaching at the elementary level in Milwaukee. Renewed 1992-1994 [\$50,000]:
2. Project 30 Grant for Science in Elementary Education \$311,000, 1990-1994, Carnegie Institute., W.F. Kean, contributor to project (\$ 20,000).

3. Field Geology for Urban Teachers, Teaching Students outside the Walls of the Classroom. Eisenhower Professional development program Grant, Dec 1996, \$25,000. W.F. Kean and L.G. Enochs Co-PI's.
4. Field Geology for Middle School Teachers in an Urban Environment, Eisenhower Program Grant, 1998, \$49,000, W. Kean and L. Enochs, Co-PI's.
5. Field Guide to Environmental Education Sites in S.E. Wisconsin, 1998-2000, \$20,000 grant to CESA#1. M. Pechura and W. Kean.
6. Information Technology and Earth Systems for Introductory Earth Science Courses, 1998, \$12,000 UWM Curriculum Development Grant, UWM and UW-System. W. Kean, P. Roebber, and C. Berg.
7. Earthcomm Teacher/Administrator Workshop, 1998, \$38,823, Funding through American Geological Institute with grant money from NSF and Exxon foundation. P.I's L. Enochs and W.Kean.
8. Casio Calculator Team Grant, 1998, \$6100, W. F. Kean, P.I.
9. Field Geology for K-3 Teachers in an Urban Environment, Eisenhower Program Grant, 1999, \$ 36,000. W.F. Kean and L. Enochs Co-PI's.
10. Field Guide to the Building Stones of Downtown Milwaukee, 1999, \$12,000, UWM Instructional Improvement Grant. W. Kean, T. Grundl and N. Hubbard. June 1990- July 2000.
10. AGI Field Test Workshop for Field Testing Earthcomm, 1999, American Geological Institute with funding from NSF and Exxon Foundation. W. Kean and T. Posnanski, \$63,000, Aug 1999-June, 2000.
11. U.S. Department of Education Title II Partnership Grant. " Milwaukee Partnership Academy for Teacher Quality", MPS and UWM School of Education, PI's M Pugash and L. Post. \$1.9 million. W. Kean, Faculty Consultant.
12. Technology and Urban Teaching Project, U.S. Department of Education, PI's M. Pugach and A. Staples , SOE, \$1,362,394. , W. Kean, Faculty Consultant.
13. Nature of Elementary Science Teaching, Eisenhower Professional Development Program. Posnanski, T. and Kean, W. 2001-2, \$100,270 for two years.
14. Posnanski, T., and Kean, W., 2004-2006, Balanced Literacy in Elementary Science Classrooms, Eisenhower professional development program, \$95,000.
15. Pugash, M., Post, L., Kean, W., Percy, S., 2003-2008, The Carnegie Foundation, Teachers of the new era, \$5,000,000.

SERVICE

Department

Lapham Hall Science Addition Committee, 1988 – 1992

Geology Club faculty advisor, 1998- Present

Chairman, Graduate Committee, 1999- 2000

Chairman, Department Personnel and Facilities Committee, 2000-2001

Ph.D. review Committee, 2004-2005.

Review committee for Dyanna Czek, 2003-2005

College

Academic Planning Committee, 1989 - 1991

Undergraduate Review Committee for Anthropology Department, 1990

Calendar Committee, 1994-1996

Course and curriculum committee, 1997-2000, Chair, 1998-1999, 2002

Program review committee for Biological Aspects of Conservation Major, 1999.

Ad Hoc Milwaukee Ideas Committee 2000 (preparing joint proposal with SOE and L&S)

University

Graduate School Research Committee, 1988 – 1990, 2003-2004.

Search and Screen Committee for Director of Center for Math and Science Education Research, 1992 - 1993. (School of Education).

Graduate School Ph.D Advisory Committee, 1999-2002

Graduate School Research Committee, 2003- 2005

Steering Committee Member, TNE grant, 2004-2005.

Professional

Participation in planning professional programs.

1. Co-convener for the 25th. Wisconsin System Undergraduate Geology Field Conference, Sept 21, 1996.
2. Co-convener for K-16 : Collaborative Educators for Earth Science Literacy, North Central GSA Meeting, Madison WI, May 1997
3. Convener for the 28th Wisconsin system Undergraduate Geology Field Conference 2004.
4. Wisconsin Groundwater Association , 2008, A geologic and hydrologic journey through southeastern Wisconsin, Trip leader and field guide author.