

NKU 2009
2010 Faculty Development Programs



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INTRODUCTION

This publication summarizes the activities and work of Northern Kentucky University faculty members who were supported by the university's faculty development programs during the academic year of 2009-10 and the summer of 2010. Three faculty development programs are currently in place at Northern: sabbatical leaves, summer fellowships, and faculty project grants.

Sabbatical Leaves are granted by the university to promote the professional growth and effectiveness of the faculty. Sabbatical leaves are granted to enable recipients, based on merit, to devote additional time to scholarly activity and research, advanced study, or artistic performance – all in pursuit of academic objectives. Tenured, full-time faculty and department chairs are eligible to apply for sabbatical leave. In 2009-10, 18 faculty members were approved for sabbatical leave.

Summer Fellowships provide funds to support professional development during the summer months. Examples of types of activities that may be applicable include: improving teaching skills; research; scholarly writing; creative or artistic projects; preliminary studies and literature searches; and attending seminars or courses related to one's field or professional work. Full-time tenure-track or tenured faculty may apply for a faculty summer fellowship. Each of the 15 faculty members awarded a fellowship for summer 2010 received an award of \$6,000, for a total of \$90,000.

Project Grants provide funds to pay expenses, purchase equipment, and to cover other financial needs for sabbatical leaves, faculty summer fellowships, and for other instructional, scholarly, and creative activities where financial support is not available through department budgets. Full-time tenure-track or tenured faculty may apply for a faculty project grant not to exceed \$6,000. In 2009-10, 11 faculty members received a project grant, for a total of \$50,000.

As illustrated in this publication, Northern's faculty development programs have enabled our faculty members to undertake important work and accomplish great things!

FACULTY DEVELOPMENT PROGRAMS AT NORTHERN KENTUCKY UNIVERSITY

SABBATICAL
LEAVE
2009-10

PROJECT
GRANT
2009-10



Bill Attenweiler
Department of
Psychological Science

Business Essentials for Industrial Organizational Psychologists

The plan for this sabbatical was to complete four introductory MBA courses in order to develop a general business course for NKU's Industrial and Organizational (I-O) Psychology Master of Science program, and eventually develop a textbook appropriate for that course. As a psychological science that resides primarily in the organizational area of human resources, understanding and communicating with the various functional areas of modern organizations is a challenge. I-O programs in the past have not provided students with guidance in communicating and collaborating with experts in other organization disciplines and functional areas.

This sabbatical was intended to fill the MSIO program's need for a general business course which addresses the specific needs of I-O Psychologists in-training. It will expose our students to the interdependence of various organization functions. It will educate our students concerning the different languages of organizations and how other disciplines can perceive value in what I-O offers organizations.

Specifically this sabbatical plan began with completing the four skill courses required by NKU's MBA program:

ACC 605 Introduction to Financial Accounting
Preparation and interpretation of primary financial statements.

FIN 605 Fundamentals of Finance
Analytic techniques for decision making; basic financial analysis for managing corporate finances

BUS 605 Legal Environment
Survey of the legal system requirements and limitations; political process, constitution, torts, criminal law, ethics, environment, product liability, consumer protection, antitrust, employment and negotiable instruments

BIS 605 Managerial Decision Analysis
An examination of the increasing complexity confronting today's manager. It covers the role of statistics in the business decision-making process. The use of managerial productivity tools to perform quantitative analysis for resolving operational business issues is emphasized.

These are the courses designed to prepare students for graduate coursework in the MBA program

These courses were completed and an "A" was earned in each.

In addition to completing the four courses, independent work was being conducted in course development of a course tentatively titled: Business Essentials for Industrial and Organizational Psychologists. This course was planned to be offered as a traditional class in 2010. That initial course offering was to be migrated to a fully on-line offering in the MSIO program.

In July 2010, Dr. Attenweiler was offered and accepted an opportunity to work as associate dean and director of integrative studies in NKU's Office of the Dean of the College of Arts and Sciences. Work on this new course and subsequent text development has been placed on hold due to new duties and responsibilities being assumed.

Mountaintop Removal: How Journalists Have Framed the Debate

During my summer research I examined the news coverage of mountaintop removal mining in national and regional newspapers from the early 1970s through the late 1990s. Using a number of databases, microfilm, and interlibrary loan, I retrieved more than 1,300 newspaper articles to include in my analysis of how journalists have framed the issue of mountaintop removal mining. The time period of my analysis corresponds with the infancy and growth of modern environmental journalism and fits nicely into my larger research program that examines the development of the environmental beat. In general, my research shows that, as the environmental beat developed, journalists were less likely to frame the mining issues solely in economic terms. I examined the social and political factors that contributed to the maturity of the environmental beat. I also acknowledged some areas where environmental journalism – as it relates to mountaintop removal mining – is still lacking.

During my research project I consulted with environmental journalists from the Louisville Courier-Journal and the Charleston Gazette (West Virginia) – both key newspapers when it comes to the largely Appalachian issue of mountaintop removal mining. I plan to polish my research during the next few months and, in the spring, submit it for presentation at the annual conference of the Association for Education in Journalism and Mass Communication.

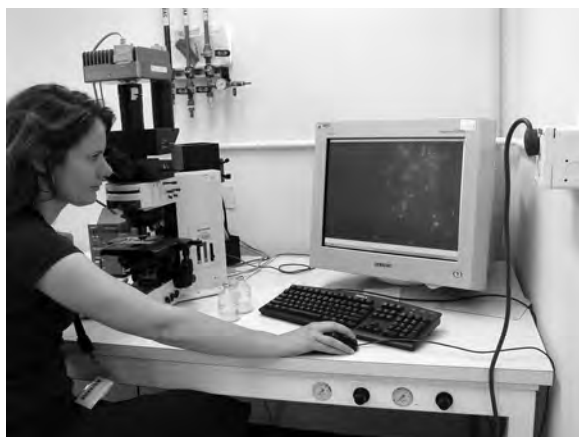
SUMMER FELLOWSHIP 2010



Matthew Baker
*Department of
Communication*

Microbial Ecology in Spacecraft Assembly Facilities (SCAF): Starvation Survival and Microbial Subsistence.

Location: NASA Jet Propulsion Laboratory, Pasadena, CA



Due to extremes of non-ionizing radiation, the absence of water, and low atmospheric pressure, the surface of Mars is inhospitable to life. Nonetheless, by sending terrestrial spacecraft to Mars, the possibility exists that the landing we could contaminate the surface of the planet with Earth-based, microscopic life. No only could this irreparably harm the Martian environment, but it would also obscure the very signatures of life that these spacecraft were sent to investigate. Historically, spacecraft such as the Viking Landers could be sterilized using traditional heat and chemical techniques; however, today the delicate robotics, circuitry and synthetic materials of these craft prevent

such sterilization approaches. Instead, the number of microorganisms (the bioburden) found on these spacecraft is limited by continued cleaning and the assembly of the craft in cleanroom facilities (SCAF), which limit the entry of contaminating microorganisms. While techniques to limit the entry of microorganisms into SCAF have reached their practical limit, very little research has been done to assess the conditions within the SCAF itself that are permissive to the growth of microbial species - conditions that could lead to a proliferation of microorganisms and increase the likelihood of spacecraft contamination.

My sabbatical project consisted of examining the SCAF where the Mars Science Laboratory (MSL) is currently being assembled. To assess the factors that could promote the growth of microorganisms, the chemicals used in this environment were examined for the presence of organic compounds that could serve as both the carbon and energy source for microbial growth. The compounds identified that could promote microbial growth included cleaning agents (Kleenol 40, iso-amyl alcohol and ethanol), paints [including wall paint (Tru-Glaze Epoxy), MSL black paint AkzoNobel aerospace coating], and MSL white paint (Aptek 2711 thermally radiative ESD paint)], and lubricants [including spacecraft

SABBATICAL LEAVE 2009-10

PROJECT GRANT 2009-10

Hazel A. Barton
*Department of
Biological Sciences*

(Braycote) and machine grease]. A chemical analysis demonstrated that many of these substrates contained volatile organic compounds that have the potential to support microbial growth, including methylene diphenyl diisocyanate, kerosene hydrocarbons and polyethers (paint), fatty acids (grease), and benzenesulfonic acid, ethylene glycol and alcohols (cleaning agents).

To determine whether these agents were able to promote the growth, they were used to develop cultivation media. These media contained the essential nutrients for microbial growth (such as nitrogen and phosphorous), but only the identified compounds were available as an energy source. These media were inoculated with a swab taken from an approximately 10 m² area within the MSL SCAF and incubated under aerobic, microaerobic or anaerobic conditions. Our data suggest that microbial growth can occur in all of the compounds tested under a number of different environmental conditions. The greatest growth was found in cleaning agents, suggesting that cleaning itself can select for the growth of resistant bacteria. The data generated also suggest that many of the agents used in the SCAF, either for preparation of the facility, building and functioning of the spacecraft or disinfection protocols, actually contribute to the growth and propagation of the very microorganisms that we are attempting to eliminate. Future work will determine how these species correlate with microorganisms known to contaminate spacecraft, allowing us to identify activities that lead to spacecraft contamination.

SUMMER FELLOWSHIP 2010

Janet Bertog
*Department of Physics
and Geology*

Taphonomic studies of the Aaron Scott Quarry, Utah



The Aaron Scott Site in central Utah is a Jurassic locality that includes remains from a large sauropod dinosaur as well as fragmented remains of many smaller animals. Research on this site has been ongoing, but new research directions continually take place with new ideas surfacing and new interests from undergraduate students involved with the project. The site has been in operation for six years. The site is significant because it provides the first evidence for a large sustained lake in what has otherwise been interpreted to be an arid meandering river floodplain environment. The evidence being collected points to the first recognized large

sustained lake in the Jurassic of the western United States.

At the beginning of the summer, a two week field expedition was conducted. During this expedition, work focused on the north end of the quarry, trying to work the quarry from a single front. This part of the quarry was dominated by a thick limestone layer that proved to have little in the way of fossil material in it. However, some material from a possible Stegosaurus, an ornithomimid dinosaur like *Camptosaurus*, and turtles and crocodiles material were found. The turtle and crocodile material is particularly of interest because these animals are known to frequent watering holes repeatedly, suggesting that the water body was constant and that they would return to this watering hole yearly. The limestone layer itself also suggests deposition in lake waters. To support this hypothesis, samples were collected for geochemical analysis.

Previously, samples of the sauropod dinosaur (which is situated above the limestone) and samples of other animals that are below the limestone were analyzed for geochemical analysis. The geochemical signature of the sauropod dinosaur was that of a lake environment, while the bones below the limestone had the signature of a river environment. The interpretation was that prior to deposition of the limestone the delta stretched further out into the lake as the lake level dropped due to a drought, and the animals were washed out onto the delta by a river system. Then the lake level rose and drowned the delta, depositing sediments of the lake. The analysis of these samples from the limestone will help to confirm or reject this hypothesis. These samples were prepared this summer and have been sent out for analysis. I expect the results in about two weeks.

Another ongoing project with the site is determining the weathering and erosion stages of the

bones. In this project bones are ranked on a scale from 0 to 5 on how much they have been altered from their original state due to weathering and erosion processes prior to burial. The specimens that have been analyzed are bones that have already been prepared and the process continues as more material gets prepared and made available for analysis. The current data already shows that there is a wide range of weathering of the bones, suggesting that they were deposited over a period of time (on the order of 100-1000 years) and accumulated in this spot due to the river system. An additional factor that we would like to analyze is whether there is a vertical variation in the distribution of the weathering of the bones. It is hypothesized that bones that were deposited by the river sediments will show a wide range of weathering while bones that are deposited in the lake sediments will show less weathering because they were buried more quickly and in calmer water. This can only be done with bones that were collected after NKU joined the expedition (approximately 650 bones were collected prior to NKU joining the team), because three-dimensional orientation of the bones was not collected prior to that time.

Publication of the results is an important part of the project. This summer two papers were completed for submission to the journal *Palaios*. Following these two papers will be three additional papers that are based on work conducted with students previously and data collected this summer.

Development of an Efficient Irrigation Protocol for Small Scale Farming in Ghana



This study was conducted with collaboration from Dr. Ben Kofi Nyarko, a lecturer at the Department of Geography and Regional Planning, University of Cape Coast, Ghana. Travel and the cost of living in Ghana were funded by a Fulbright Scholar Grant through the African Regional Research Program. The University of Cape Coast provided transportation to the research sites.

The overall goal of this study is to reduce over-irrigation whilst attempting to maintain or increase the yield of small scale farmers in developing countries such as Ghana. The study used soil moisture as the main criteria for determining the moisture needs of

cabbage and tomato crops. The local farmers helped in selecting suitable experimental and control farm plots at each test site. Soil samples were tested to determine the percentage sand and the percentage fines (silt and clay) on each plot. Also, the atterberg limits of the soils were determined to establish the plasticity characteristics of the soil. Jet fill tensiometers were installed to monitor the daily soil moisture on the experimental plots.

Farmers were advised to irrigate (furrow) when soil moistures had dropped below a threshold value. The threshold moisture value was determined based on the soil texture and moisture needs of the respective crop as well as suggestions from the farmers. The farmers helped in determining the threshold moisture by showing us what to look for when the crops start to appear stressed. A control plot was irrigated based on the farmers' existing criteria. Soil moisture monitoring started from transplanting through harvesting of the crops. Crop yield (size, weight, and quality) of the experimental and control plots were compared to determine apparent differences. Less water was used on the experimental plots as expected. The soils of the plots in southeastern Ghana were mainly sandy clay whereas the northeastern Ghana soils were silty clay to silty clay loam. Due to delays in the testing of soil samples from the southeastern Ghana site, there were errors in moisture threshold values used. This made the study at this site inconclusive. However, the northeastern Ghana study showed that the experimental yielded more healthy looking tomatoes than the control plot. The overall weights of the yields on both plots were the same. In general about 25,000 gallons of water

SABBATICAL
LEAVE
2009-10

Samuel Boateng
Department of Physics
and Geology

was saved on the experimental plot per week. This reduced the irrigation cost at the experimental site by about half thereby making the yield on this plot more profitable. Another important benefit of this study is that the farmers devised a soil classification nomenclature in their local language for the threshold moisture level by using the feel of the soil through the fingers. Thus, they will not need any monitoring equipment in the future in deciding when to irrigate. The use of soil texture and moisture requirements can be effective in the efficient use of irrigated water without adversely affecting crop yield of small scale farmers in a developing country.

This study helped me in establishing a research link with collaborators in Ghana. There are plans to expand this study to other regions of the country when adequate funding becomes available. In this regard, I am putting together a research proposal for submission to appropriate funding agencies, with my partners in Ghana as collaborators. Some of the project results were presented at the 2010 annual meeting of the Kentucky Academy of Sciences. I hope to present more results at other professional meetings in 2011. Also, I am preparing a manuscript for submission and ultimate publication in a reputable journal. I also learned a lot from the farmers especially in identifying when a crop is about to become stressed. This was a valuable technique we used in establishing the threshold moisture for irrigation scheduling.

SUMMER FELLOWSHIP 2010



Tom Bowers
Department of English

Investigating the Influence of New Media on Contemporary Environmental Organizations

In the past few years, mountaintop removal has generated a significant amount of public discourse throughout Appalachia. Mountaintop removal is a method of coal mining in which explosives are used to remove the tops of mountains to expose coal seams. The remnants of the mountaintops are then cast into valleys, with the remnants filling the valleys and subsequently blocking any flow of water down the valley. The project I obtained funding for in the form of a summer fellowship focuses on the recent discourse of various pro-coal and environmental organizations, specifically in terms of how the use of new media serves to enable these groups to shape public perceptions of mountaintop mining and to secure membership into their respective groups.

Two drafts have been completed as a result of the research conducted through the fellowship. The first article describes the ability of the technology used by I Love Mountains, specifically their use of Google Earth, to construct the experience of presence. As Appalachian studies scholar Steven Fisher argues, addressing the problems of Appalachia will require the ability to frame the experiences and problems of the region so they are not considered problems distinct to the region but are rather problems connected to the nation's interests. In the article, I argue that the construction of presence that I Love Mountains attempts through the Google Earth application is an effort to bridge the geographic and psychological distance between Appalachia and the rest of the country. The article is in its final revision stages and will be submitted to *Technical Communication Quarterly*, a peer-reviewed journal that focuses on the relation between technologies and communication.

The second article describes the use of public memory as constructed and disseminated through various communication technologies by groups such as Aurora Lights, I Love Mountains, and the West Virginia Coal Association. This article also engages in Fisher's claim as to the need to address the geographic and psychological boundaries separating Appalachia and the rest of the nation. Drawing on Fisher's premise, this article addresses the primary question of whether public memory, specifically memories tied to Appalachian places and culture, can effectively generate awareness in those outside the region and lacking the same memories. The paper argues that public memory can be used to bridge the local and global by way of generating a new national environmental imaginary. Yet significant obstacles stand in the way of achieving this end, specifically in the form of the growing privatization and economics of space. Rather than framing environmental deliberations as matters of jobs versus the environment or as efforts to preserve natural places and sublime experiences, the use of public memory casts deliberations of environmental policy in terms of a place-based land ethic that sees place as central to the constitution of cultural identity. This article is currently being revised and will be submitted to *Environmental Communication: A Journal of Nature and Culture*, a peer-reviewed journal.

Re-envisioning BIO349/BIO349L: Genetics Lecture and Laboratory



In the field of genetics we have left behind the simple Mendelian view of single-gene inheritance and are now taking a genomic perspective. This change in the way genetics is understood and researched must result in changes in the way the science is taught. However, recent advances in technology and research methods have not been readily incorporated into biology classrooms. The focus of the Summer Fellowship was to effectively incorporating genomics and bioinformatics into the curriculum. The Project Grant supported the fellowship by funding my attendance at the American Society for Microbiology/Joint Genome Institute Bioinformatics Institute: Incorporating Bioinformatics Research in

Undergraduate Education in Washington, D.C. Through the summer I utilized skills and resources gained from the workshop to incorporate bioinformatics and genomics into the course.

The primary way in which students will learn about bioinformatics is through an authentic research experience conducted in collaboration with Dr. Hazel Barton's lab. The Barton lab recently sequenced a genome from a cave bacteria strain, *Pseudomonas fluorescens* R124. Each student will be annotating a single gene from *P. fluorescens* genome, working in a group with students who have genes that are located close to each other in the genome. "Gene annotation" means the students will use the gene DNA sequence, and surrounding sequences, to investigate the properties of the gene product and its role in the cell. By utilizing information found in a variety of databases, the students will be building a case for the function of their gene. They will truly be doing an authentic research project, and as instructors we will not know the answers, rather we will be assessing the students' analysis of the data they collect. By using genes in close proximity to each other, the students will be encouraged to discuss their work with each other and share relevant information. The entire module will take the final five weeks of the semester in laboratory and culminate in a final report and oral presentation. The student data will help the Barton lab better understand *P. fluorescens* and it will ultimately be submitted to national databases.

This revised course is currently underway and students are just beginning their research. Over the next couple years I will be assessing student skills, knowledge, and interest in bioinformatics, as well as the impact on students' work on *P. fluorescens* research.

SUMMER FELLOWSHIP 2010

Bethany V. Bowling
Department of
Biological Sciences

Typeface Design: Phase One, Character Drawing



The work I completed for my 2010 Summer Fellowship functioned as a necessary precursor to the work I will complete during the Spring 2011 academic semester while on my first sabbatical. My sabbatical project is to conceive of and design an original and internationally competitive typeface design. This Summer Fellowship work, in addition to research, included designing and hand-drawing the uppercase typographic characters to be used in this typeface design. I began this past summer by furthering my research and analysis of what currently exists within the typeface design market. Successes, popularity, opportunities, needs, and all pertinent categories were explored and analyzed as

a part of my research. Once a market niche was discovered, I next, went about actually drawing the uppercase characters by hand. I then converted those hand drawings into digital files to be used later in the creation of the typeface. This first step was crucial to insuring a successful outcome for my upcoming sabbatical and I am quite grateful to have had the opportunity to do so.

SUMMER FELLOWSHIP 2010



Tobias R. Brauer
Department of
Visual Arts

SABBATICAL LEAVE 2009-10



**Kimberly Hanson
Breitenbecher**
*Department of
Psychological Science*

Preparing for a New Area of Scholarship: Health Psychology

Prior to my sabbatical leave, my research focused on sexual victimization among college women. Specifically, I published research on risk factors for sexual assault, the psychological effects of sexual assault, and the effectiveness of sexual assault prevention programs.

During fall semester 2006, I began teaching Psychology 465, Health Psychology. Health psychology is defined as the application of psychological principles and research to the enhancement of health and the prevention and treatment of illness. The experience of teaching this course stimulated my interest in developing a new trajectory of research. I used my sabbatical leave to prepare myself to conduct research in the area of health psychology.

One of the most important aspects of this preparation was to gain depth and breadth in this content area. Not surprisingly, this task involved a lot of reading! Specifically, I identified high-impact journals in the area of health psychology and familiarized myself with research that has been published in these journals within the past two years. I also read a series of edited volumes (on health psychology) published by the American Psychological Association. In addition, I attended the fall 2009 meeting of the Kentucky Psychological Association. During this meeting, I earned continuing education credit for learning about the psychological treatment of fibromyalgia and migraine headache, the role of psychology in managing pain and addiction, and the prevention and treatment of obesity.

One of my most important sabbatical goals was to use my knowledge gains in health psychology to enhance my teaching. Specifically, I wanted to develop a laboratory course in health psychology. In order to accomplish this goal, I conducted a comprehensive review of all undergraduate health psychology textbooks on the market. I also corresponded with the Education and Training Committee of APA Division 38. I considered possible student learning outcomes and associated course activities. Finally, I developed a course syllabus. I offered the course for the first time during spring 2010.

One of the primary course objectives for students enrolled in Health Psychology Laboratory will be to gain practical experience conducting research. This experience includes formulating testable hypotheses, conducting appropriate statistical analyses, and communicating results. In order to provide students with an opportunity to practice these skills, I need to provide them with access to an appropriate data set. To that end, I developed a research proposal to collect survey data on multiple health-related behaviors and experiences (i.e., exercise, stress, substance use, nutrition) among NKU students. I submitted a protocol describing this study for institutional review and plan to begin data collection later in the fall 2010 semester. Students enrolled in future sections of Health Psychology Laboratory will be able to practice their data analysis skills on this data set.

SABBATICAL LEAVE 2009-10



**Kimberly P. Clayton-
Code**
*Department of Teacher
Education*

Evaluating Online Pedagogy Practices in the Provision of Professional Development for P-12 Educators: The Kentucky Virtual Schools Model



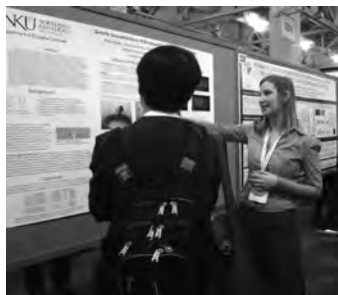
There has been a significant increase in the use of online learning within all levels of education. The Kentucky Department of Education has responded to this increase through the development and facilitation of online professional development courses. As part of this initiative, the Kentucky Department of Education participated in a federally-funded grant, E-Learning for Educators, which aimed to establish an effective and sustainable model of online professional development for teachers. This included an extensive collection of data to guide overall program improvement in each of the participating states; however, this data had not been analyzed. This sabbatical focused on the analysis of a portion of the E-Learning Kentucky project data. It included a focused evaluation of online pedagogy practices offered through the Kentucky Department of Education's online professional development courses for K-12 educators.

This sabbatical project contributed to the research base in the field of online learning in terms of evaluation of pedagogical and communication techniques. I worked collaboratively with consultants at the Kentucky Department of Education's e-Learning Kentucky Virtual Schools online professional development for P-12 educators. Kentucky is a member state of e-Learning for Educators—a project funded through a \$4.6 million US Department of Education Ready to Teach Grant. The grant provided for the creation of online professional development courses, training of facilitators, and the provision of high quality online professional development opportunities. A component of the professional development courses offered through the e-Learning project includes the collection of data from P-12 teachers throughout Kentucky.

This data was analyzed to evaluate the effectiveness and sustainability of online professional development for P-12 educators. According to the data analysis, teachers' perceived levels of content knowledge increased as a result of participating in the online professional development courses. In addition, initial analysis has indicated that teachers perceived higher performance levels of their own P-12 students as a result of the teacher's increased knowledge, skills, and dispositions from participation in the online professional development course. In terms of student outcomes, the students had a statistically significant increase in their attitude towards and knowledge of concepts related to the professional development course.

As a result of this sabbatical, I was able to publish a peer-reviewed journal article, a proceedings publication, Conference on Distance Teaching and Learning, and a research report delivered to the Kentucky Department of Education's Kentucky Virtual Schools e-Learning Senior Consultant and the Kentucky Council on Economic Education. In addition, I conducted several professional research presentations and designed and developed two online professional development courses for teachers—*Taking the Eek Out of Economics: Economics for Elementary Teachers* and *Show Me the Money: Personal Finance for Middle and Secondary Classrooms*. The *Show Me the Money* course has since been included in a grant that was received through the Kentucky Real Estate Commission.

Assessing Anxiety in PCB-treated Mice Differing at the Ahr and Cyp1a2 loci



Polychlorinated biphenyls (PCBs) are persistent organic pollutants that bio-accumulate in the food supply and resist environmental degradation. The Commonwealth of Kentucky routinely issues fish advisories for contaminated waterways, including all counties bordering the Ohio River. Studies of human populations near the most polluted sites have found learning, memory and behavioral abnormalities in children exposed during pregnancy and breast-feeding. Not all exposed individuals experience the same level of adverse health effects, indicating that genetic differences are important in determining who is at highest risk. The investigator's

previous studies identified genetic susceptibility to learning and memory deficits in mice with differences in two genes: the aryl hydrocarbon receptor (Ahr) and cytochrome P450 1A2 (Cyp1a2). However, differences in behavior were also observed which can indicate differences in anxiety level. This award allowed the investigator to further investigate these differences.

This grant directly supported the research of four students in the Curran lab who are using a mouse model that mirrors human variation in the AHR and CYP1A2 genes. The video equipment purchased with grant funds to monitor animal behavior has been used by eight different undergraduate researchers. Multiple presentations resulted from this work, including one presentation at the 2010 Society of Toxicology annual meeting (Breann Hays) and a poster at the 2010 Ohio Valley Society of Toxicology annual meeting which received the Best Undergraduate Poster award (Cellestine Kamau-Cheggeh). In addition, one student who has completed her studies at NKU was recently accepted into two Physician Assistant programs based in part on her undergraduate research experience (Rikki Floyd). The complete data set is now being analyzed for a manuscript to be submitted to Neurotoxicology in early 2011.

PROJECT GRANT 2009-10

Christine Perdan Curran
Department of
Biological Sciences

SUMMER FELLOWSHIP 2010



Shamanthi Fernando
*Department of
Physics and Geology*

Dark Energy and Black Holes

Current observations reveal that the composition of the Universe consists of a mysterious quantity called “dark energy.” While the stars, planets and galaxies only counts for about 5%, the dark energy take about 65% of the composition of the Universe. On the other hand, it is also accepted that all galaxies consists of black holes at its center. Black holes, which are formed by gravitational collapse of massive stars, are excellent theoretical labs to test new theoretical models describing the fundamental forces and energy of the Universe. Studies of black holes have taken a major component in the current research community working on gravitational physics and particle physics. Many of the theoretical models of black holes studied exclude the presence of dark energy. Considering the fact that dark energy is a relatively a new phenomena, there is much to do in terms of understanding the structure of black holes immersed in a Universe with dark energy.

The main goal of this project was to study circular orbits of test particles around a black hole immersed in dark energy. Since the galaxies and planetary systems can be considered as formed by particles moving in circular orbits around an attractive center, such a study is important in understanding and interpretation of astrophysical observations of orbits in the future. While there are several models proposed for in literature, I focused on a popular model developed by Kiselev.

In this project, I did analytical and a computational study of the orbits. The dependence of the orbits on the parameters of the black hole space-time, such as the mass of the black hole, charge of the black holes and the density of the dark energy was studied in detail. To solve the equations and understand the geometry of the orbits, the Mathematica software was incorporated. Currently, I am in the process of preparing a manuscript to send to a well reputed journal in Gravitational Physics.

SABBATICAL LEAVE 2009-10



Matthew Ford
*Department of
Management*

Strategic Control, Midcourse Correction and Performance Excellence Models

My Spring 2010 sabbatical focused on advancing research projects in various areas. One area involves the Malcolm Baldrige Criteria for Performance Excellence and how it is employed by organizations. The Malcolm Baldrige National Quality Award was initiated by the federal government in the late 1980s to stimulate domestic quality improvement and to establish guidelines to help organizations evaluate their own improvement efforts. Since the program’s inception, over 80 organizations have received Baldrige awards.

Historically, lack of access to primary data generated in the Baldrige evaluation process has constrained related research. To preserve confidentiality of applicant information, the Baldrige program has carefully guarded its data in a proprietary manner. However, through a collaborative effort with the Monfort Institute at the University of Northern Colorado and the Baldrige Award Recipient Consortium, a sample of data from Baldrige winners was made available to support a research effort by James Evans and Suzanne Masterson, both of the University of Cincinnati, and myself. As such, we are fortunate to be among the few researchers to have access to primary Baldrige data for analytical purposes.

Early this year, we completed qualitative analysis of more than a dozen Baldrige winner feedback reports to answer various research questions. Because Baldrige winners are considered to possess some of the best organizational processes in the world, one focus of our research involves discerning just how “excellent” Baldrige winner processes are. Information processing theory suggests that the adaptive, integrative state thought to characterize highly mature processes may be difficult to achieve in practice due to the structural complexity generated by improvement activities. Indeed, our findings suggest that organizational processes of Baldrige winners often fall short of theoretical ideals—particularly with respect to the management of information and the implementation of strategy. A paper containing some of our more practically oriented findings is under consideration at *Harvard Business Review*.

We have also been working with a separate set of primary data obtained from the Ohio Partnership for Excellence, which administers a Baldrige-based assessment process at the state level. Our analytical focus has been on how human resource processes evolve in terms of integrative structure

that promotes unified effort toward effective goal achievement. We uniquely conceptualized the process integration construct along both collaborative and coordinative dimensions which permitted better theoretical clarity and richer data analysis. A paper related to this work will be presented at the annual meeting of the Decision Sciences Institute in late November. We recently learned that this paper has been designated the conference's Best Integrated Research Paper—a significant honor given the size and prestige of this conference and the small number of best paper awards bestowed there.

Finally, I have long been involved in pedagogical research related to financial markets and how people, particularly college students, learn about them. In early spring, Professor Tahira Hira of Iowa State, a well known scholar in the financial literacy domain, asked me to participate in an elite research project sponsored by the National Endowment of Financial Education (NEFE). The scope of the project, which involved about 30 interdisciplinary scholars from prestigious institutions, was to conduct a comprehensive review of the research literature on personal finance, and to identify future opportunities from both a scholarly and policy perspective. I had the pleasure of working in a subgroup that reviewed research in personal financial behavior and its motivators. My colleagues included researchers from Dartmouth, Universities of Maryland, Rhode Island, and Wisconsin, as well as the Federal Reserve. We presented our findings at an August colloquium in Denver that was attended by over 100 researchers and policymakers. Subsequently, I have been working with some of my colleagues to submit a related paper invited by the editor of *Financial Consumer Sciences Research Journal*.

Researching Cyber Crime and Secure Software Development Internationally

I spent July and August of 2009 visiting universities and meeting with security professionals in India. My visit was arranged by Shrimati Das, Professor and Head of the Nehru Arts, Science, Commerce College and Post Graduate Center, Hubli, Karnataka, India. I gave eleven talks at various universities across India. In Bangalore, Mangalore, Hubli, and Hyderabad, I met with professionals to discuss computer security issues that their companies or agencies were dealing with. One result of my visit is that Prof. Shrimati Das will be visiting Northern Kentucky University during the Spring Semester of 2011.

I spent October and November of 2009 visiting GREYC (Groupe de Recherche en Informatique, Image, Automatique et Instrumentation) Laboratory at ENSICAEN (École Nationale Supérieure d'Ingénieurs de Caen & Centre de Recherche) in Caen, France. My visit was arranged by Alain Bretto, Professor of Computer Science University of Caen. Prof. Bretto has visited NKU twice. At ENSICAEN, I worked with Jean-Claude Paillès and Mohammed Achemlal on a project titled "Building Trust in Network Virtualization". This project dealt with using a hypervisor in a smart telephone to separate and provide more security for applications.

One product of my visit was that two ENSICAEN computer science students, Paul Ulric and Ashley Gambi, visited NKU during the summer of 2010. I worked with Paul Ulric on a project "Examination of the Problems with Password Authentication".

I spent March 1, 2010 to May 25, 2010 as a Visiting Professor at Babeş-Bolyai University, Cluj-Napoca, Romania. This visit was arranged by NKU Computer Science Professors Marius Truta and Alina Campan. Prof. Truta and Prof. Campan studied at Babeş-Bolyai University. I worked with Prof. Judit Robu on a research project on effective password policy. This project was continued with Paul Ulric. I also continue my research on cross-site scripting (XSS) attacks. Babeş-Bolyai University is very interested in faculty visit, faculty offering a summer course, and student visit as well as having Babeş-Bolyai University faculty and students visiting NKU.

SABBATICAL LEAVE 2009-10



Charles Frank
Department of
Computer Science

**SABBATICAL
LEAVE
2009-10**

Bertie M. Greer
Department of
Management

Buyer Supplier Relationships: Understanding the Dynamics for Improvement

I spent my 2009-2010 sabbatical focusing on teaching and research. During the fall semester of 2009, I was a visiting scholar at the University of Dayton in the Department of MIS, Operations Management and Decision Sciences. While visiting, I developed and taught a graduate course in Project Management, and team taught undergraduate courses in operations planning and the senior capstone operations project course. This invaluable experience provided me with the time and opportunity to learn about an operations management curriculum and the program courses necessary in order to sustain a major. In addition to teaching, I was also able to engage in the University of Dayton academic community and to develop and build relationships with professors, students and business leaders for future scholarly work. During my time at the University of Dayton, I was also able to learn and develop further hands on skills on MS project (software used in project management).

During the spring semester, the second half of my sabbatical, I was able to participate in a statistical course on SPSS, which focused on Amos and structural equation modeling at Wayne State University. This course provided me with the knowledge I needed to analyze data for current research titled: The Mediating Role of Commitment between Trust and Relationship Satisfaction in Minority Supplier and Non-minority Buyer relationships. Moreover, I also continued work on research in the area of supply chain management. I specifically focused on linking supply chain management superiority to multifaceted firm performance. This research seeks to investigate the relationship between supply chain effectiveness and the overall health of firms viewed as supply chain leaders. To identify firms with superior supply chain capability, I took rankings from AMR's annual Research Supply Chain Top 25 lists. Each year since 2004, AMR has published an annual listing of firms identified as the supply chain leaders. Using the rankings of supply chain leaders from 2004 through 2009, a sample comprising of all firms that were ranked as supply chain leaders in any of the five years was created. The matched sample comparison group methodology was then employed to empirically identify any financial based differences between supply chain leaders and non-supply chain leader firms. In order to capture firm performance, I used the following performance measures: Profitability Ratios, Return on Assets (ROA), Return on Equity (ROE,) Return on Investments (ROI), Earnings Per Share (EPS), Operating Margin, Cost Ratios, COGS/Sales, SGA/Sales, Activity Ratios, Inventory Turnover, A/R Turnover,- Operating Cycle, Trading Cycle, TATVR, Liquidity Ratios, Current Ratio, and Cash Turnover. While not completely ready for publication, the manuscript created has resulted in a published proceeding and will be presented at the 41st annual meeting of the Decision Sciences Institute in San Diego, CA during the week of November 20-23, 2010. The manuscript is being further developed and will be submitted for publication this fall.

Cognitive & Neuroanatomical Evaluation of an Animal Model of Korsakoff's Syndrome (KS)

Thiamine is used by brain cells to break down carbohydrates and form proteins and DNA (National Institute on Alcohol Abuse and Alcoholism, 2007). A thiamine deficiency in the brain leads to retrograde amnesia, the inability to recall events that took place before the amnesia started, and anterograde amnesia, the inability to store recent events in long-term memory (Flint et al., 2007). Thiamine deficiency-induced loss of memory is known as Korsakoff's syndrome (KS) and is seen in long-term alcoholics (Flint et al., 2007), certain inherited disorders, and malnourishment (National Institute on Alcohol Abuse and Alcoholism, 2007).

Much is still unknown about KS, but post-mortem studies have shown that about 2% of non-alcoholics and 12.5% of alcoholics actually show signs of the disease (alcoholconcern.org). Given that more than 18 million Americans need treatment for alcohol abuse, KS is a significant problem (National Institute on Alcohol Abuse and Alcoholism, 2007). While there is a large body of research on alcohol exposure in rats, very little is known about the mechanisms by which cell death occurs in KS.

The results from this project will enable more accurate treatments for KS to be developed and tested. Results showed that thiamine depletion in rats decreased the ability of rats to learn a learning and memory task as measured by the Morris Water Maze (MWM) and that nitric oxide may be in part responsible for these deficits. Nitric oxide synthase produces free radicals which may be a mechanism by which cells are damaged by thiamine depletion. A better understanding of these mechanisms will enable better therapies to be developed for humans with KS.

**PROJECT
GRANT
2009-10**



Kristi Haik Martines
***Department of
Biological Sciences***

Improving Online Learning Experience for Mobile Learners

With fast development of mobile devices, mobile learning has gained a lot of attention from educators and researchers. Due to their ubiquity, mobile devices are changing the way people learn. Researchers have proposed content adaptation approaches to present content in suitable format for learners' mobile devices. However, the existing approaches have two major issues. First, content adaptation runs on course management server side. The server is easily overloaded. Second, they only adapt content format via column-wise, replacing, trans-coding, page splitting techniques to fit small screens of mobile devices. Their content adaptation lacks intelligence.

In this research project, I worked with one CS (Computer Science) student, Ariana Lopez, and one CIT (Computer Information Technology) student, Christopher Walker. We have proposed a novel proxy-based content adaptation system for mobile devices. We have designed a greedy algorithm and a weighted link graph to perform intelligent layout adaptation for mobile devices. We have designed WCCP (Web Cache Communication Protocol) based request interception and forwarding. Based on the research, Ariana won the SURCA award (Student Undergraduate Research & Creativity Award). She presented a poster at the 2010 Celebration of Student Research and Creativity. Also, Chris selected this research as his honors project. He presented the project at the 2010 Celebration of Student Research and Creativity. Based on the research project, we have had two conference papers published.

Wei Hao, Ariana Lopez, and Christopher Walker, "A Novel Proxy-based Content Adaptation System for Mobile Devices", in the proceedings of the fifth IASTED International Conference on Human-Computer Interaction (HCI 2010), Maui, Hawaii, August, 2010.

Wei Hao and Jicheng Fu, "Cloud Based Content Adaptation System for Mobile Learners", 7th IEEE Consumer Communication & Networking Conference, Las Vegas, Nevada, January, 2010 (short paper).

**PROJECT
GRANT
2009-10**



Wei Hao
***Department of
Computer Science***

SABBATICAL LEAVE 2009-10

Jon Hastings
Department of
Biological Sciences

Cicada Killer Wasp Research



Over the past six years I have collaborated with Dr. Chuck Holliday of Lafayette College and Dr. Joe Coelho of Quincy University on a comprehensive study of North American cicada killer wasps. A few years ago we learned about the location of a large perennial colony of the Pacific cicada killer (*Sphecius convallis*) in the abandoned mining town of Ruby, Arizona. As no research on the ecology or behavior of this species had ever been published we were anxious to study this colony. However, because the activity of the adult wasps in this colony is restricted to the Fall months, we could only study them if we were granted leaves from our academic positions. All three of us applied for, and were granted, sabbaticals for Fall 2009, which enabled us to camp for two months on the edge of this huge colony and to study the wasps for an entire adult activity period.

Much of what we learned about the wasps was not surprising, as previous DNA analysis revealed a close relationship to the well studied eastern cicada killer, a species common in northern Kentucky. In fact, we found many behavioral and physiological similarities between the two species. However, the harsh southern Arizona climate has influenced the daily and annual activity cycles of *S. convallis*. For example, we found that both male and female wasps spend much time, especially during the afternoon, drinking sap from wounds they make in the branches of trees and shrubs. This behavior apparently keeps them cool and replaces body fluid lost to the environment by evaporation. In fact, the wasps exhibit a variety of behaviors that minimize exposure to the intense heat and solar radiation of the Arizona desert.

We focused much of our effort on studying provisioning behavior. Female cicada killers of all species dig nest burrows deep in the soil and lay a few dozen eggs, one each in separate nest-cells within the burrow. The females provide each nest cell with enough food to enable the resident offspring to grow all the way to adulthood. This food is in the form of cicadas that females capture in nearby trees, paralyze, and carry in flight (for as far as one kilometer) back to the nest. As deserts are such harsh environments, food, especially food rich in protein (like the paralyzed cicadas) is hard to come by. We found that several animals learned to take advantage of the hunting prowess of the female wasps; several bird species, including acorn woodpeckers, kingbirds, and roadrunners, exhibited kleptoparasitism, meaning that they would steal the cicadas from the provisioning female wasps. The accompanying image is of a female Pacific cicada killer wasp carrying a paralyzed cicada to her nest; the heavy load makes her vulnerable to attack by kleptoparasites. Towards the end of the nesting season, provisioning female wasps had to literally run a gauntlet of potential thieves. Life is tough in the desert!



Stellar Dynamics in Molecular Clouds

This fellowship allowed me to spend the summer completing a year-long research project and preparing the results for publication. The project began during the summer of 2009 when NKU students Jeremy Spitzig and Edward Landis joined me in collaborating with Fred C. Adams (Dept. of Physics; University of Michigan, Ann Arbor) to investigate the planet-forming potential of stars born in clusters.

Planets are believed to form out of the disks of gas and dust that are known to surround newly formed stars. In turn, most stars in our galaxy are born in clusters of between 30 and 2000 members within cloud-like structures of molecular gas. The interaction between the members of these clusters can significantly affect planet formation. Specifically, the most massive stars within these clusters can produce enough ultraviolet light to evaporate the disks of gas and dust surrounding the other stellar members before planets can form. We performed a statistical analysis of this problem by calculating distributions of flux values impinging upon star/disk systems for several cluster scenarios. We found that in the absence of dust attenuation, giant planet formation would likely be inhibited in approximately half of the systems forming within intermediate sized clusters regardless of stellar membership. In contrast, the presence of dust can significantly lower this value, with the effect considerably more pronounced in more populated clusters.

As a result of this summer fellowship, I submitted the manuscript "An Investigation of the Loss of Planet-Forming Potential in Intermediate Sized Young Embedded Star Clusters," to Publications of the Astronomical Society of the Pacific on September 15, 2010. We received a positive review and the manuscript was resubmitted on October 29, 2010 with a few minor changes.

SUMMER FELLOWSHIP 2010



Lisa J. Holden
Department of
Mathematics and
Statistics

Assessing the Influence of Wetlands Restoration Methods on Greenhouse Gas Fluxes and Nitrogen Removal



The summer fellowship allowed me to spend my first summer at NKU studying how different wetland restoration methods directly influence greenhouse gas fluxes and the removal of nitrogen. Wetlands contribute significant amounts of greenhouse gases to the atmosphere, but at the same time they provide many critical ecosystem services including the removal of excess pollutants from our waterways. A natural process that removes excess nitrogen from ecosystems is denitrification, the bacterial conversion of nitrate to different forms of nitrogen gas. Many wetlands are being restored and created throughout the U.S. to improve the quality of water flowing downstream. However, because restoration ecology is a new field of science, we do not understand how restoration methods affect (or connect with) ecosystem processes (e.g., greenhouse gas flux and nitrogen removal). Along with four NKU undergraduates, we combined field and laboratory studies to investigate how different methods of wetland restoration influence greenhouse gas fluxes and nitrogen removal. We collaborated with NKU's Center for Applied Ecology to create the experimental treatments

in the field. We tested whether amending the soil with organic matter or seeding the plots would influence greenhouse gas flux. Concurrently, we conducted laboratory incubations to assess the influence of different types and amounts of organic matter on gas fluxes and N removal. So far we found that organic matter types vary in the amount of N they contain and that adding grass clippings did increase the amount of N in the soil. We have yet to analyze all of our gas samples, as we just installed a new gas chromatograph funded by the National Science Foundation. We found

SUMMER FELLOWSHIP 2010

Kristine N.
Hopfensperger
Department of
Biological Sciences

the restored wetland was functioning well by removing nitrate from the water. Understanding which restoration methods reduce greenhouse gases will help managers to create wetland habitats that will slow instead of accelerate global warming. Similarly, knowing how to restore a wetland that maximizes nitrogen removal will significantly improve water quality and ultimately reduce downstream problems such as the devastating hypoxic zones that are devoid of life in the Gulf of Mexico.

SABBATICAL LEAVE 2009-10

Barbara Houghton
*Department of
Visual Arts*

Women Working/Working Women



SEWA paper pickers meeting
<http://www.sewa.org>

will change the society in India. Each long day was filled with visits to a various parts of SEWA. Visited and photographed were the paper pickers, design coop with master craftswomen and apprentices, produce market coop, fish market coop, milk coop, farm coops, construction coop, waste collectors, recyclers, bankers, herbal medicine plant, home workers including incense stick rollers, bidi rollers, embroidery apprentices, manufacturing fashion workers, craft workers and their shops, vendors, cleaners, office workers, business training, video editors, academy students in photography, rural spinners and weavers, spice workers, rice farmers, water purity trainers, and the doctor who trained the midwives and health workers in rural villages.

I was allowed to photograph the women while they were working, make portraits of the women, and interview them to find out more about their activities. I collected brochures, posters and other materials from each unit. I purchased samples of items they produced to support them and the work I was doing. I found incredibly generous spirits and came away feeling grateful for the opportunity to get to know some amazing people. SEWA was started by Ella Bhat, a young lawyer, in the 1970's and has become a powerful voice and supporter of women's rights. Ella wrote WE ARE POOR, BUT SO MANY, a history of SEWA. That, and the white papers on the SEWA website prepared me to understand what I was to see while I photographed.



Dr. Mohini Giri
<http://guildofservice.org>

I also traveled to Jaipur where I photographed Muslim women celebrating Holi Festival in a poor neighborhood near where I was staying. When I planned traveling to Jaipur it was also with the hope of meeting with and photographing women working at the Anokhi Block Printing Company and its Museum. A friend from Cincinnati is the museum director and spends part of the year in Jaipur. Her plans for returning home left her with little time to arrange a visit to the company workers. And, with the holiday celebration, most were out of town and the museum was on limited hours.

After researching the lives of widows in India, I arranged to visit and photograph at a widows' shelter house in Vrindavan run by the Guild of Service whose chair is Dr. Mohini Giri. Dr. Giri was visiting the newly built Ma Dham Shelter house the day we were there. She was delivering to the widows savings account books, and their long fought for pensions. The widows at Ma Dham were living for free in

safe accommodations with medical care, training classes, food provided and encouraged to continue to live, rather than spend their time as most widows in Vrindavan do, praying for their husbands and begging for money to pay for their food and horrible shelter. A widow in India has virtually no rights, as property is owned by her husband and his family so when she is widowed; she loses all and often becomes destitute and homeless.

During that day's visit at Ma Dham, I established a friendship with Dr. Giri and she expressed interest in coming to see the exhibition of the work I was doing while she was in the States for a Hunger Project meeting and also visiting her daughter in Detroit. After some correspondence, we will host her as the main speaker for International Education Week on the Plight of Widows in India. During November's International Education Week, we will also show the movie *White Rainbow*, based on Dr. Giri's life.

I made over 4500 exposures on this trip. The photographic record of the women in India resulted in an exhibition shown in the Visual Arts Third Floor Gallery from November 4 through the end of the fall semester 2010 which will be also during Dr. Giri's visit for International Education Week. I produced a catalog for the exhibition and a visual sabbatical report book with photographs, which resides in the Offices of the Provost and the Dean of Arts and Sciences.

Changing India, one woman at a time

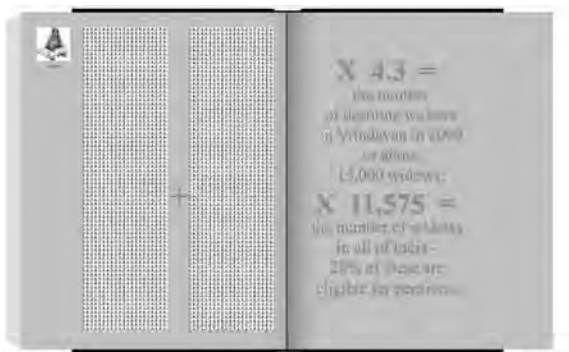


SEWA Master Craftsperson working at the Design Coop on samples for apprentices from the exhibition catalog.

My summer fellowship was spent preparing the photographs shot on my sabbatical in India for the exhibition, *Changing India, one woman at a time*. From the 4,750 images shot, I edited them in stages, using work prints, down to the 34 images that I printed, matted and framed. An installation piece was also created from the photographs for this exhibition. The installation consists of two banners 24" x 84" with a repeated image of one of the widows from Ma Dham shelter home and text to describe the number of destitute widows living in India.

I also created two books from the work. One book was the sabbatical report filled with images and text carefully describing the work I did with two groups: Self Employed Women's

Association, a trade union and organization supporting women mentoring each other to rise out of poverty through training, apprentice, micro-banking and literacy programs. SEWA is headquartered in Amdabad. The second group was Guild of Service, a volunteer charitable organization that works to empower women through a number of initiatives including the Ma Dham shelter home for widows in Vrindavan. Dr. Giri, the chair of Guild of Service, traveled to our campus to speak during our International Education Week activities.



Spread showing installation for exhibition.

My second book was an exhibition catalog for *Changing India, one woman at a time*. Both books are self-published. The exhibition dates are November 4 through December 10 in the Fine Arts Center Third Floor Gallery.

SUMMER FELLOWSHIP 2010

Barbara Houghton
Department of
Visual Arts

SABBATICAL LEAVE 2009-10



Stephanie Hughes
Department of
Management

An Innovative Model of Threat Assessment for College and University Campus Environments

There has been a surge of violent events on college campuses in recent years despite efforts at incorporating more aggressive risk mitigation techniques such as background checks, the hiring of additional campus police, and emergency notification tools. Most university administrators will agree that these tools have done little to reduce the volume of "Clery Act" reported incidents on most campuses and this has led to enormous liability and reputational costs to universities. According to the U.S. Department of Education statistics, there were a total of 46,397 incidents reported on college campuses in 2006 up from a reported 45,384 in 2005.

What appears to be missing from the current arsenal of tools available to campus administrators is a process for early detection of these disruptive incidents before they become high profile, full-blown crises. Recently however, university and college administrators have begun to implement "threat assessment teams" as an attempt to provide a proactive and comprehensive approach to managing the risk posed by disruptive or criminal behavior among individuals in university settings. These teams are intended to address the gaps in communication and crisis management among administrators that were so readily exposed in the Virginia Tech tragedy. Many of these approaches however, are being modeled on existing threat assessment models that were developed primarily for the "controlled campus" settings prevalent to K-12 and corporate environments. These existing models are predicated on a "known" threat operating in a closed or controlled setting. These characteristics do not reflect the open boundaries or "come one come all" organizational culture often associated with most higher education environments.

Anecdotal feedback from campus administrators involved in threat assessment on campuses suggest that many administrators feel that the current composition of campus threat assessment teams lack both an understanding of prior models of threat assessment along with the proper training to implement these solutions on their campuses. There are two objectives for this research. First, this research is intended to provide a benchmark of what the current threat assessment capabilities on college campuses are along with an understanding of existing gaps in team member capabilities, policies and procedures. Second, this research is intended to propose and test a new comprehensive threat assessment model predicated on reducing the potential risk posed by inappropriate behavior. This new model will accommodate the identification of and reporting of potential threats (data collection), the assessment of the risk of the potential threats (data analysis), the establishment of protocol for interface with legal, law enforcement and mental health professionals and the provision of training content to mitigate identified issues (problem solving and implementation) and finally, the analysis of the effectiveness of actions (data evaluation) taken over time.

This research effort has led to the first published model of threat assessment for the higher education community with publication in the *Journal of Educational Administration* in January, 2011. In addition, the data collected from the research effort will serve as the basis for a second journal submission in early 2011.

SABBATICAL LEAVE 2009-10

Missy Jones
Department of
Teacher Education

Inclusive Campus Communities: Developing Mentoring Partnerships to Foster Independence

The semester sabbatical proved to be extremely valuable as I worked with my colleagues across the state to forward efforts toward creating inclusive campus communities. With the passage of the Higher Education Act, more students with intellectual disabilities are making the college experience their dream, and we at NKU are helping to turn those dreams in to reality. Through the development of peer mentoring partnerships, students with disabilities receive the social and academic support they need to have valuable campus experiences. These experiences ultimately enhance the quality of their lives and the lives of others around them. At the same time, special education majors in the College of Education and Human Services participate in a service-learning project to support their peers with disabilities, gaining first hand experience as each prepares for a career in special education. It is considered a partnership because both parties benefit from the supportive relationship.



During my sabbatical, I was able to conduct research to learn how effective our current mentoring supports were. As a result, changes have been made to the mentoring program, directly impacting current and future students on campus, as well as the faculty who teach them. Two manuscripts are in progress as a result of this timely research.

In addition, I was also able to collaborate with my partners at the University of Kentucky Human Development Institute and the Postsecondary Inclusion Partnership to create a pilot project with the Kentucky Office of Vocational Rehabilitation, joining forces to collaboratively provide support to our NKU students. Together, we are helping students to address their vocational training needs as well as their academic and social needs, generating meaningful experiences that will hopefully translate in to competitive employment.

These collaborative efforts led to our successful acquisition of a highly competitive federal grant from the Department of Education. This five-year grant, totaling over two million dollars, will provide the resources needed to conduct further research, and provide quality support to our faculty and students. As a co-principal investigator of this grant and active agent on this project, I have been able to get NKU named as one of the national model program sites for postsecondary education opportunities for students with intellectual disabilities.

Writing about Shakespeare: A Student's Guide to Writing and Researching Shakespeare and the English Renaissance Dramatists

I received a Sabbatical Leave for the Spring 2010 semester. I appreciate Northern Kentucky University's support of my scholarship. I believe that I have made strong progress on my research project and have met the goals that I hoped to achieve as a result of this award. I believe that my sabbatical was quite successful and productive.

In my application I requested a sabbatical in order to research a book focusing on writing about William Shakespeare and other early modern dramatists. The book is designed to facilitate research and writing assignments regarding Shakespeare and his contemporaries as well as film and theatrical productions of the plays. Courses on William Shakespeare in particular and other early modern dramatists such as Ben Jonson, Christopher Marlowe, John Webster, and Thomas Kyd are required by virtually all institutions of higher education. The purpose of this book is to provide undergraduate students in these courses with a clear, concise, and effective guide that assists them in their research and writing projects. Focusing exclusively on early modern drama, the book offers concise definitions of common terminology, an introduction to the writing process, an introduction to researching the field, and an overview of common classroom writing assignments. The book is composed of an Introduction and eight chapters with each individual chapter focusing on a specific component of the research and writing process.

The sabbatical I generously received from Northern Kentucky University enabled me to conduct my research and begin drafting the manuscript. The sabbatical provided me with time to do intensive research on the various texts that focus on writing about literature in general and writing about drama and theater in particular. This research helped me gain an understanding of the materials and resources currently available to students and instructors of Early Modern drama. From this research I was also able to decide what specific information to include in my text. For example, while many composition textbooks discuss using quotations, none offers detailed information on using and citing quotations from Early Modern drama.

In addition to completing my research I was also able to use my sabbatical leave to begin drafting my manuscript. I have submitted a proposal of the book to Bedford/St. Martin's Press and have had several conversations regarding the possibility of publication with Bedford's Shakespeare editor.

**SABBATICAL
LEAVE
2009-10**

Parmita Kapadia
Department of English

SUMMER FELLOWSHIP 2010



Tonya Krouse
Department of English

Research for a monograph, *Women's Fiction and the Domestication of Shame: Home, Brutality, and Sex in the Twentieth Century*

With the generous award of a 2010 summer fellowship, I began work on my second book, which is provisionally titled *Home-Making: Deviant Domesticities in Women's Fiction after 1900*. This monograph will examine the ways in which critical and theoretical commonplaces that simply align domesticity with femininity, privacy, passivity, and purity foreclose our ability to reckon with and account for the ways in which twentieth- and twenty-first-century women writers render domestic spaces and reconceptualize them in their fiction. The novels of Virginia Woolf, Doris Lessing, Kathy Acker, Margaret Atwood, and Zadie Smith rarely house "traditional" spouses or conventional families, but rather they house single women and men, gay and lesbian couples, children forced into adult roles, adults who behave like children. "Domesticity" doesn't disappear with the end of the nineteenth century, but it does change radically. The common critical refusal to account for this – to relegate domesticity to a time that has past, and to align public life with liberation – constitutes a gendering that marginalizes literature by women and depicts a false image of the role of domesticity in our daily lives, one which preserves patriarchal authority and the oppression of identities that don't neatly fit into the paradigms endorsed by that authority.

This project will contribute significantly to scholarship in my field, as is evidenced by the positive response that I received to my presentation of my initial work on the topic at the International Virginia Woolf Conference in June 2010, work that I am revising for potential publication in article form. Further, this project ties to my teaching, and out of this research I have developed a course on the novel with the theme of "Deviant Domesticity," which I will offer for the first time in Spring 2011. I am very excited to continue with this research and to continue to investigate the cultural relevance of home and the deep significance of domestic roles and relationships into the twenty-first century.

PROJECT GRANT 2009-10

Doug Krull
*Department of
Psychological Science*

Unlocking Psychology: Keys to Understanding



This project grant pertained to my interest in writing an Introductory Psychology textbook. The project grant enabled me to hire a student assistant. I was fortunate to enlist the help of a very capable psychology student, Jennifer Williams. She compiled (in reworks) 132 references for a cognition chapter, 189 for a learning chapter, and 121 for a motivation and emotion chapter, in addition to helping in other ways. Primarily during the grant period I wrote a chapter on personality (62 pages), greatly revised my prospectus, and sought a publisher (my previous publisher was acquired by another company and they decided not to continue with the project). I have been speaking with a publisher that seems interested. I have completed eight of twelve chapters.

Translating Lorenzo di Filippo Strozzi's Renaissance Biography of his Father, the Vita di Filippo Strozzi il Vecchio (The Life of Filippo Strozzi the Elder)

SUMMER
FELLOWSHIP
2010

William Landon
Department of
History and Geography



At the Basilica of the Holy Cross (Basilica di Santa Croce), Florence, Italy.

During the summer of 2010, I travelled to Florence, Italy where I worked in the Biblioteca Nazionale Centrale and the Archivio di Stato. At those archives I was able to examine several autograph manuscripts written by Lorenzo di Filippo Strozzi, a Renaissance banker and humanist author. The manuscripts in question are some of the most famous biographies written during the Renaissance period—biographies of Lorenzo’s famous relatives Filippo Strozzi the Elder and Filippo Strozzi the Younger. These works, despite their fame, have not been seriously examined since the nineteenth century, nor have they ever been translated into English. The funds (a Summer Fellowship and a Project Grant) granted to me by NKU allowed me to produce new, corrected Italian editions of Lorenzo Strozzi’s biographies and they also allowed me to begin the lengthy process of translating them into English. In due course, I will seek to publish the first bilingual edition of Lorenzo Strozzi’s *Vite (Lives)*. That book will be a small, though important contribution to my field,

Renaissance studies. I am very grateful to NKU for supporting my research efforts.

I also, briefly, want to update the reader on the progress of my second monograph, which was funded in large part by grants from NKU (Summer 2007). That book, on Lorenzo Strozzi’s literary relationship with Niccolò Machiavelli, has received the required two positive recommendations for publication. I am very proud of this accomplishment as the University of Toronto Press’ “Italian Studies Series” is one of the world’s most prestigious Renaissance series.

Finally, on October 30th, I returned from another trip Florence, Italy. In Florence I presented some of my new research at the ACM Multimedia Conference’s “eHeritage and Digital Art Preservation Workshop” (<http://www.acmmm10.org/program/workshops/>). The paper that I co-authored and co-presented with Dr. George Landon, Computer Science, ECU focused on new, immersive digital methods of delivering historical documents in the undergraduate classroom. This research has already blossomed on NKU’s campus as I will be taking part in The School of Informatics’ NSF CPATH Grant. In the Spring of 2011, I will be linked with INF 128 as an “Internal Informaticist.” This is an extraordinary “transdisciplinary” opportunity. The funding that NKU shared with me will allow me to use my expertise to benefit our students. To me, that is what research at NKU is all about.

**PROJECT
GRANT
2009-10**



Yushi (Boni) Li
Department of
Sociology,
Anthropology and
Philosophy

Impacts of Rapid Growth on Residential Satisfaction and Community Attachment: A Longitudinal Study in Northern Kentucky community

I utilized the faculty grant to study the impact of economic development and population growth on the Northern Kentucky residents' community attachment and their levels of satisfaction. One NKU undergraduate student was involved in this project. This is a longitudinal study, the first phase of which was financially supported by Kentucky NSF ESPCoR Research Enhancement Grants in 1996. With the results of this initial research, I published one journal article and presented three research papers at different conferences. I was also interviewed by the Cincinnati Enquirer and the Northern Kentucky Magazine in order to report the results of the research to local residents. A decade later, I replicated this research for a longitudinal study. The purpose was to see how the population growth and social and economic development in the Northern Kentucky community in the past ten years have impacted residential levels of satisfaction and community attachment. This research allowed me to compare results with the 1996 data.

With the development of technological advancement, people are able to expand their communicational links beyond their geographical locations. This progression has created an acceptance across the population to reach beyond traditional methods of interaction patterns and their relationships. This change has strongly impacted local residents' community attachment and their feeling of belonging. Community attachment is measured by local social bonds and sentiments which are approved by previous studies to be significantly influenced by variables, such as length of residency, home ownership and other demographic factors. The recent data shows that the above demographic variables may not be essential factors when analyzing community attachment due to the introduction of new communication technology in the past decade. This study also discusses the possible expansion of the definition for community attachment in order to interpret people's social bonds and sentiments beyond their geographical limitation.

This research allowed me to co-author with one NKU undergraduate student to present a paper at the Kentucky Academy of Science, 95th Annual Meeting in fall 2009. The paper was titled "The Impacts of technological advancement on local community attachment." We have also completed a research paper for publication. The title of this paper is: "Does technology matter when studying community life?"

**SABBATICAL
LEAVE
2009-10**

Yushi (Boni) Li
Department
of Sociology,
Anthropology and
Philosophy

Emigrating from China to the United States—A Comparison of Different Social Experiences

I utilized the sabbatical leave to complete a book: *Emigrating from China to the United States—A Comparison of Different Social Experiences*. At the same time, I also submitted a book proposal and received and signed contract for it: *Global Aging Issues and Policies*.

The book *Emigrating from China to the United States* was completed and published by Charles, C. Thomas Publisher, LTD. The goal of this book is to help college students understand the associations between individuals' personal experiences and the impacts of cultural and social changes. Such changes include; social values and norms, economic development and technology advancements on their daily lives. To accomplish this goal, I described how life events have influenced and impacted my social values, attitudes, behaviors, and further discussed how I continue to be resocialized by both American and Chinese societies. I also focused on the connection of those experiences to help students see a world beyond the borders of the United States. This book presents sociological concepts and theories and lays a foundation on the subjects of globalization and offers a comprehensive perspective by which to view other societies.

I am going to write and edit a book for readers in the general public and students who are interested in global aging issues and policies. The goal is to help college students and other readers make connections between their personal observations and knowledge about American aging problems and relevant issues globally. To accomplish this goal, I will collect professional articles from authors

in different countries, which will be divided into continents including Asia, North and South America, Europe, the Oceanic Islands, and Africa. By sharing these nations' elderly issues and their particular solutions to the problems, it will provide people with global perspectives on current aging processes, policies and strategies. It will help college students and readers understand that the increase of the elderly population is a major development in the 21st century. The book will comprehend the importance of improving the elderly population's overall quality of life. In reading about the topics in this book, readers will gain insights about why global elderly issues are critical and how the lives of elderly have been impacted and influenced by different policies, societies and cultures in which they live. This book will include multiple authors from different countries. Although it is designed for college students to use as a textbook, any readers who are interested in elderly population can also read this book.

Health Change: Food, Sex, and Sleep



My sincere thanks to the Board of Regents for my sabbatical during the spring of 2010. It was a time of both academic growth and productivity, a semester in which I completed tasks that I would not have been able to do while performing my regular responsibilities. My major accomplishments were developing a course on sleep, which I hope will contribute to our planned Health Innovations Center, and conducting a content analysis of the image of forensic psychology in feature film.

I developed, what was essentially, a new course and taught it during Intersession 2010. I will be teaching it during the 2011 spring term as well. Originally, I had proposed to revive an old course that was mostly about sleep. Yet, so much had changed in the two decades since I had last taught the course that I ended up starting from scratch. To prepare for the course I read five books on sleep and read parts of several others. I read many journal articles, and located and previewed 22 different films on sleep, dreaming, and sleep disorders. Many of the films were very good, and I used quite a few in the course. I also found several research instruments to use in the class: an "owl and lark" questionnaire, two sleepiness scales, plus a sleep diary. I had students keep both sleep and dream diaries. To use with the latter, I developed a classroom activity that nicely paralleled the research on dream content analysis. I prepared power-point presentations on at least 17 different topics. While searching for a text to use in the course, I contacted the world's foremost authority on sleep, Dr. William Dement of Stanford. When I re-contacted him to ask a few questions, he asked me to join a panel of college and high school teachers interested in furthering sleep education. I also made contact with a local sleep scientist, Dr. Martin Scharf, and I took my students on a field trip to his sleep center. The students came away from this course probably knowing more about sleep disorders than their family practitioner. They also left with a keen appreciation of how much "sleep debt" the average person carries and the negative effects this debt has on society, such as causing over 100,000 auto accidents a year.

Many people incorrectly believe that forensic psychologists primarily profile and track criminals. In reality, forensic psychologists are usually clinical psychologists who provide assessments of legal clients and/or treatment in legal settings. The false impression stems, in part, from television shows and movies. With the help of several students, I conducted a content analysis of the portrayal of forensic psychology in 56 movies released between 1993 and 2008.

There were a number of steps involved: developing and testing -- and retesting, many times -- a coding instrument; training student film coders; identifying an appropriate sample of films; locating and obtaining the films; distributing the films to the coders; assessing coder reliability; and tallying frequencies for each variable across all 56 films. To be included in our analysis a film had to 1) be in English 2) be listed in the *TimeOut Film Guide* 3) have a rating of 1.5 bones or higher in *Videhound's*

SABBATICAL LEAVE 2009-10

Angela Lipsitz
Department of
Psychological Science

Golden Movie Retriever; 4) have been shown in theatres; and 5) feature a psychology professional in a major role (operationally defined as appearing in a minimum of four scenes with an average of at five lines of dialogue per scene). Student coders completed a 5-page questionnaire on each film. They coded, among other things, whether the psychology professionals engaged in 24 different forensic activities, 10 different illegal activities, and 14 different professionally unethical activities. Although psychology professionals were often depicted providing treatment services for those in the legal system, they were seldom shown doing other typical and legitimate forensic activities, such as providing expert testimony in the courtroom. The psychology professionals were often shown performing unrealistic activities such as tracking, chasing, physically battling, and killing criminals. We also found many cases where psychology professionals engaged in illegal and unethical behavior. In January, we plan to submit a convention paper based on this study. We will also submit it to the journal *Professional Psychology: Research and Practice*. This first study inspired a smaller, second study, as well. While searching for films and trying to determine if they met the above-mentioned criteria, I was struck by the fact that, in different sources, the same psychology professional would sometimes be described as a *psychologist* and sometimes a *psychiatrist* -- and sometimes just as a *shrink*. We thus also began collecting data on the inconsistent descriptions of movie professionals in video guides and movie packaging. Students are often confused about the distinctions among different types of therapists. No wonder! Film guides and packages confuse them. We would like to submit this secondary study to the journal *Teaching of Psychology*.

These film projects gave research experience to three students: David Lutes, who helped develop the coding sheet, and who continued to contribute even after his December graduation; and Jennifer Williams and Kaitlin Cannava, who served as the coders, working from January through June. Jennifer also did some analysis. The students will be coauthors with me on resulting papers and presentations.

SABBATICAL
LEAVE
2009-10

PROJECT
GRANT
2009-10

Julie Mader-Meersman
*Department of
Visual Arts*

At the Intersection of Artists' Books and Applied Book Design: Exploring the Synergistic Relationship Between Personal Art- Making and Creative Graphic Design



On my sabbatical, I produced a body of 33 new creative works, covering themes ranging from mass consumption to creative processes and material efficiencies, to domestic life, women's issues and motherhood, and the origins of the values of the American Dream. The body of work includes ten book-based works, 21 collage-based works, and I began designing a 120-page book titled *More Zazen*, a compilation of haikus and reflections written by writer and poet Renée Walker during and after a growthful period of time living and discovering the self at the intersection of Eastern and Western cultures at the Mt Baldy Zen Center and Monastery

in southern California in the early 1970s. I also designed and produced the author's web site (www.renewalkerwriterpoet.com), extending digital media proficiencies and applications of creative designing through standards-compliant production techniques via HTML and CSS.

The keystone project of the sabbatical and project grant was the design and production of the mixed media artist's book, *When I Became a Woman: A Collection of Personal Accounts*. Artists' books are defined well by the Sallie Bingham Center for Women's History and Culture of Duke University: "Artists' books combine traditional arts such as graphic design, printmaking and bookbinding with the full spectrum of contemporary art practice and theory. The result is an art form with endless possibilities, all based on the beloved form of the book." *When I Became a Woman* is a visual record

of the stories of over 50 women who responded to a question that I posed: “At what point in your life did you find you could call yourself a woman?” I produced a high-end prototype in an edition of three using historically far-reaching media (from letterpress to digital typography) as part of a grant application for the National Museum for Women in the Arts annual Library Fellows Artist’s Book program. The grant would enable the production of 125 copies of this largely hand-crafted work. The book was designed so that each individual book in the edition is unique by creatively re-using vintage and reject paper materials such as old cookbook photos, children’s book illustrations, *Popular Science* magazine pages, ledger sheets and other obsolete office ephemera, and more. Featuring a wide variety of carefully selected, waste paper in the book addresses both material production efficiencies and contributes to the storytelling properties of the book.

During the sabbatical, I was invited to share new work in the favorably reviewed exhibition, *I of the Text* (Riffe Center for the Arts, Columbus, Ohio, May–June 2010), where I was interviewed by the Ohio Channel, and *Lost and Found: The Art of Collage* (Main Gallery, Northern Kentucky University, August–September, 2010). My work was also accepted into the exhibition, *Mothers*, on view at Woman Made Gallery (Chicago, November 5– December 23, 2010), and I was invited to participate in the upcoming 2011 exhibition, *Paper Moon: Ohio Woman in Paper* at Ohio Dominican University’s Wehrle Gallery. Further, I will exhibit all of the new work in the exhibition, *Personal Effects*, which will be on view in the Third Floor Gallery at NKU from January 13–February 4, 2011.

With a basis in the reflection on the role, impact, and purposes of graphically designed materials in American culture, the new body of work has generated new questions, values, and priorities in my works of creative production and in my teaching. Concerns about our significantly increased reliance on non-domestic countries and companies for goods and services, and our correlating decreased knowledge about and skill sets for how to make things to help us live — and to make them responsibly — have realigned my efforts toward an even stronger preparation for our students to not only function, but lead, in a sustainably-oriented world.

Implications of Mixing Energy Drinks and Alcohol on Subjective Feelings of Intoxication and Behavioral Control in College Student Social Drinkers

Alcoholic drink preferences in college students have shifted in the past decade, with trends in consumption leaning toward the mixing of energy drinks with alcohol (e.g., Red Bull and vodka or Four Loko). These mixed alcoholic drinks have been implicated in numerous problems, including traffic accidents and accidental extreme intoxication. However, the paucity of knowledge about the effects of these beverages is problematic for adequately informing the general public about the risks of these drinks. Therefore, to determine if these mixed alcoholic drinks are indeed more risky than consuming alcohol alone, I designed an experiment to address this question.

In my research, participants received a beverage (alcohol, energy drink, alcohol+energy drink, or placebo) and then were asked to perform a computer task that measured behavioral control and to complete questionnaires that assessed subjective level of intoxication. The goal was to determine if alcohol+energy drink consumption differed on these measures compared to the consumption of alcohol alone. The results indicated that participants were equally impaired on impulse control, regardless of whether the participant received alcohol+energy drink or alcohol alone. However, co-administration of the energy drink with alcohol increased participants’ self-reported stimulation. Thus, it appears that mixing an energy drink with alcohol increases the risks of drinking alcohol beyond those typically seen with alcohol alone. If an individual acts impulsively following alcohol+energy drink consumption and yet feels more stimulated than they normally would with a comparable amount of alcohol alone, they may engage in a variety of health risk behaviors such as drinking greater quantities of alcohol, driving while impaired, initiating fights, or engaging in risky sexual behavior. The results of this study indicate that alcohol+energy drink beverages are risky and college students who have become enamored with them will need to be warned of their potential effects.

A manuscript containing the findings from this research study is currently under review. While the activities of this project grant research were unfolding, I wrote two external grant applications

PROJECT GRANT 2009-10



Cecile A. Marczynski
Department of
Psychological Science

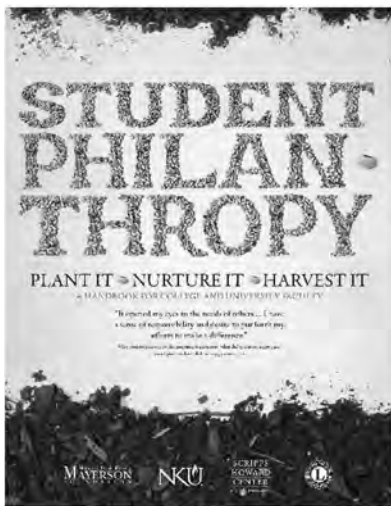
related to this research that I am pleased to report that both applications were funded. Using the pilot data obtained from this project, I secured a two year grant from the Kentucky Biomedical Research Infrastructure Network (KBRIN) for \$54,000 and a three year R15 grant from the National Institute of Alcohol Abuse and Alcoholism at the National Institute of Health for \$353,769. Both grants are substantial awards that allow me to further pursue this exciting line of research.

SUMMER FELLOWSHIP 2010



Julie Cencula Olberding
*Department of
Political Science and
Criminal Justice*

Writing of Two Manuscripts Involving the Mayerson Student Philanthropy Project at NKU



A Summer Fellowship in 2010 enabled me to focus on my research and service related to student philanthropy. Since I came to NKU, I have been actively involved in the Mayerson Student Philanthropy Project, including service as faculty director from August 2008 to August 2010. In this role, I tried to “spread the word” about student philanthropy to my colleagues at NKU and other universities and to improve evaluation of the Mayerson project. During Summer 2010, I worked with Mark Neikirk, executive director of NKU’s Scripps Howard Center for Civic Engagement, to develop a student philanthropy handbook with information and tools to implement this relatively new teaching strategy. It is a 70-page manual that provides information on various models of student philanthropy, a history of the Mayerson project, frequently asked questions (FAQs) and responses, stories from faculty who have used it, measures of the Mayerson project’s impacts on students and nonprofit organizations, and scholarly research on student philanthropy.

Within two months of publication, the Scripps Howard Center distributed all 600 copies to faculty in more than 30 states and a number of foreign countries.

In terms of evaluating the Mayerson project, I worked with Dr. Danielle McDonald – a colleague in the Department of Political Science and Criminal Justice – to design and implement the first quasi-experimental study of student philanthropy. Our study included pretest and posttest surveys as well as an experimental group (students who participated in philanthropy) and a control group (students who did not participate). Key findings were that students who participated in philanthropy – relative to those who did not – were significantly more likely to be aware of nonprofit organizations and to experience change in their awareness of social problems and their interest in helping others. We submitted our manuscript – entitled “Learning by Giving: A Quasi-Experimental Study of Student Philanthropy in Criminal Justice Education” – to the *Journal of Criminal Justice Education* and, after a blind peer review, we have been asked to make minor revisions and resubmit it.

In addition, I worked on a study that looks at the longer-term effects of student philanthropy – beyond the college experience – on participants’ behaviors, particularly their engagement with the nonprofit sector. In Summer 2010, I conducted a survey of NKU alumni who participated in the Mayerson project between 2000 and 2009. Some of the most important findings indicate that student philanthropy alumni donate money to charity, volunteer and serve on nonprofit boards at a much higher rate than the general population. Of the alumni who participated in the Mayerson project and responded to the survey, more than 80 percent indicated that they made a financial contribution to at least one nonprofit organization during the past year, and about 70 percent indicated that they volunteered during the past year. Further, nearly 15 percent of the student philanthropy alumni served on the board of at least one nonprofit organization. I have developed a manuscript – called “Do Student Philanthropists Become ‘Real’ Philanthropists?” – which I plan to submit to an academic journal in the near future. This seems to be the first scholarly manuscript that measures the longer-term effects of student philanthropy, so I am hopeful that it will be published.

Sharing Perspectives on Inclusive Education: The U.K. and the U.S.

All around the world teachers, departments of education, education research institutions, professors of education, and others are working conscientiously to produce pedagogy, curricula, diagnostic tools, and so on, to better serve students, parents, society, and the teaching profession. Without drawing on this collective wisdom, without benefiting from the experiences of our colleagues in other countries, without becoming informed of each other's experiments, successes, and failures, our individual teaching practices are doomed to be parochial and myopic (Mazurek & Winzer, 2006, p. 5).

International comparative studies contribute to education research by documenting the existence of a much broader array of educational practices and outcomes than is available in the United States alone (Chabbott & Elliott, 2003). Findings from international comparisons have the potential to provide rich sources of ideas about how nations can strengthen teaching and student achievement, and have the potential to contribute to education policy via the exchange of each countries' experiences of success and failure, and the ability to make innovative change based on the understanding of other countries' successful reform activities (Elliott, J.L., Shin, H., Thurlow, M.L., & Ysseldyke, J.E, 1995). One area of study that seems critical to such outcomes, yet is significantly neglected in existing comparative education literature, is the comparison of pedagogy across nations (Alexander, 2001).

Educating students with disabilities is a global issue, and specifically examining international special education practices allows educators to analyze these practices in light of information and ideas from other nations, thereby providing a means to improve their own practices (Mazurek & Winzer, 2006). Currently, the United States and the United Kingdom are experiencing very similar issues regarding educating students with disabilities, including increases in the number of students being identified with educational disabilities, government mandates for integrating these students in general education classrooms, and an increased emphasis on accountability and high-stakes testing (IDEA, 2004; NCLB, 2001, Ofsted, 2004). A joint, bilateral examination of the ways in which teachers and teacher educators from these two countries are addressing these issues has the potential to contribute to a broadening of ideas, new insights, and critical reflections that could lead to improvements in how students with disabilities are educated in both the U.S. and the U.K.

This Summer Fellowship was used to research, compare, and exchange information related to how students with disabilities are educated in both the U.S. and the U.K. A particular focus was placed on inclusive practices and issues related to supporting students with disabilities in general education settings. Research was conducted via reviews of existing literature, examination of applicable legislation in both countries, and dialogue between teacher educators from the U.S. and U.K. Overall findings indicate that the issues surrounding the inclusion of students with disabilities in general education classrooms are very similar across the two countries. However, there were significant differences in how the two countries prepare teachers to work with students with disabilities.

SUMMER FELLOWSHIP 2010



Bianca P. Prather-Jones
Department of
Teacher Education

SABBATICAL LEAVE 2009-10



Blas Puente-Baldoce
*Department of
World Languages and
Literatures*

Collection of Short Stories and Short Novel

The sabbatical leave has given me time to accomplish several academic endeavors. I revised a manuscript entitled Manuela Scorza: New Indigenous Narrative, which has been accepted for publication by both Peter Lang Publishing House in New York City and Hipocampo Editores in Lima, Peru. Unfortunately, financial setbacks have ground the publication process to a halt; however, in light of this situation, I created an academia-themed weblog called Hipocrita Lector. The freedom of this new form allowed me to publish thirteen articles concerning Latin American narrative and Peruvian poetry, based on the presentations I gave at national and international Latin American Literature conferences over a span of twenty years. Needless to say, this material was previously revised during my sabbatical for their publication in Hipocrita Lector. Motivated by the success of this weblog, I created another called Rimasun Kananqu, concerning Andean Linguistics and Quechua, an indigenous language spoken in the Peruvian Highlands. For this blog, I have revised publications I had written for my former field of Linguistics, including parts of the thesis for my Masters Degree, as well as started on the transcription of fifteen tapes of this regional dialect. I hope to use this material to write a proposal for a future research grant. However, my work during sabbatical was not only limited to these online submissions; the thirteen articles published on Hipocrita Lector will be part of a manuscript I am working on for a future book of essays on Peruvian literature and narrative technique, tentatively entitled Text and Ideology in the Peruvian Literature. The sabbatical leave has allowed me to enhance my scholarship and academic publication; thanks to the internet my work been internationally distributed and my various articles have been cited as a source in multiple other online publications. As far as my creative work goes, I was able to finish two short stories during my sabbatical: one in English, entitled “Checkpoint Charlie,” and one in Spanish, entitled “A ras de suelo,” and they were published on my blog. Since I have acknowledged Northern Kentucky University as my academic home, I hope this dissemination of my work will bring visibility to our university.

SABBATICAL LEAVE 2009-10



Bradford W. Scharlott
*Department of
Communication*

The Role of the Business Press in the Commercial Life of Cincinnati, 1831-1912

In my Fall 2009 sabbatical I investigated how several business publications in the Cincinnati area, especially the *Cincinnati Price Current*, contributed to the prosperity of the city. The *Price Current*, a weekly, was born in 1844 and published in Cincinnati until 1912, at which time it moved to Chicago and then finally died in 1929. The publication served various needs, but its chief purpose was to disseminate price information to people involved in business. Every week it listed the selling prices of commodities, from beeswax to whiskey, in the Cincinnati area; this information was crucial to individuals doing business in the city. In addition, the paper published business news from around the country. Moreover, the *Price Current* essentially became an adjunct and recorder of activities at the Cincinnati Merchants Exchange (which started just months before the *Price Current*), where much of the City's wholesale trading centered, at least until 1872. Till that time, the publication and the exchange were so tightly entwined that the same person headed both. After 1872, changes in the nation's economy, especially the use the telegraph in interregional buying and selling, allowed some exchanges, such as the Chicago Board of Trade, to rise in importance but caused others, like the Cincinnati Merchants' Exchange, to diminish. When that happened, the *Price Current* had to redefine itself. It began to focus more and more on trading at the Chicago Board of Trade, especially the futures trading that started there after the Civil War. This strategy allowed the publication to survive, but it meant that it no longer had a reason to be in Cincinnati. So when the editor who took over the paper in 1872 finally retired in 1912, he sold the paper to a publisher who relocated it to Chicago, merging it with a similar publication. And then, in the first shockwaves of the Great Depression, the publication died.

The significance of this paper is that it charts in depth, for the first time, how a price-current publication interacted with and benefited financial institutions in the city it served. It also documents how, in the decade in which the *Price Current* appeared in Cincinnati, the rate of population growth in

the city accelerated, reversing a slowing in growth from the previous decade; and while the publication alone probably could not account for that spurt, it was certainly an integral part the complex of factors, such as the birth of the Merchants' Exchange, that helped Cincinnati grow faster.

I presented this paper at the annual convention of the Association for Education in Journalism and Mass Communication in Denver this past August. It is now being considered for publication. It is the fourth paper I have written about business communications in Cincinnati; the others have all been published.

Collaborative Grants Education

My 2010 Summer Fellowship project allowed me the opportunity to develop specialized grants education for two target groups—1) NKU faculty/staff and 2) the local nonprofit community. A bit of background is necessary in order to place the Fellowship in context. In addition to my position as Grants Coordinator at Steely Library, I am also a Foundation Center Cooperating Collection supervisor. The Foundation Center is a national nonprofit service organization and is considered the nation's leading authority on organized philanthropy. The Foundation Center has over 400 Cooperating Collections in the country; these are “free funding information centers in libraries, community foundations, and other nonprofit resource centers that provide a core collection of Foundation Center publications and a variety of supplementary materials and services in areas useful to grantseekers.” The core collection includes print materials as well as the Foundation Directory Online (FDO) database, a sophisticated and comprehensive source of private foundation funders. As a Cooperating Collection supervisor I will provide training on this database. The Cooperating Collection designation was the impetus to coordinate that training with Gail Lange, Director of Grant Development in NKU's Research, Grants, and Contracts office and with Ann Schoenenberger, Business Reference Librarian and Foundation Center Cooperating Collection Supervisor at the Kenton County Public Library (KCPL).

Primary training will be for our internal audience, NKU faculty/staff. Gail currently offers workshops for them on external funding. Together we synchronized training in order to complement/supplement each other's sessions. We will offer separate workshops as well as merge them as appropriate. My material will combine an FDO database tutorial with general information on grant seeking including primary differences between private and state/federal grant funding, types of private foundations, and why one would pursue private foundation funding. For both workshops, Gail and I developed a matrix handout, “On-line, Licensed Grant Opportunity Search Tools Available at NKU,” for workshop participants that compares FDO, GrantSelect, and InfoED Collection.

The second target audience is the local nonprofit general public who need basic knowledge of the philanthropic sector and grant seeking skills. I collaborated with Ann Schoenenberger at KCPL to determine joint trainings, including a workshop on Grantseeking Basics to be offered next year.

This fellowship resulted in practical outcomes that will benefit both NKU faculty/staff with grant funding pursuits, and the library, which is now poised to launch training opportunities to local nonprofits. Additionally the project afforded me an excellent opportunity to strengthen my skills in this new aspect of my job as Grants Coordinator for Steely Library.

SUMMER FELLOWSHIP 2010



Laura A. Sullivan
Steely Library

**PROJECT
GRANT
2009-2010**



Hongmei Wang
**Department of
Computer Science**

Extended PlanGraph for handling the context-dependency problem in human-GIS communication

Based on the project plan for the faculty project grant, I have conducted the following research work since July 2009:

I extended a Human Communication Framework (HCF) that I developed before for better understanding of human-GIS communication. The extension was based on characterizing various contextual factors which may influence the meaning of the user's speech request, and human collaborative dialogue strategies which are used to handle the context-dependency problem and other uncertainty problems in human-human communication.

I extended the PlanGraph model based on the extended HCF. The extended PlanGraph model can help the GIS to keep track of more types of contextual factors, such as time and causation, in addition to the contextual factors of task, space and human.

I applied the extended PlanGraph model to handle the vagueness problem in human-GIS communication, which also involves the context-dependency problem.

I have the following peer-reviewed publications based on the research funded by the project grant:

Wang, H. (2010, 16-18 Dec). Knowledge elicitation study towards development of a collaborative speech enabled GIS. Paper to be presented at Intellectbase International Consortium Academic Conference, 2010.

Wang, H., PlanGraph: An Agent-Based Computational Model for Handling Vagueness in Human-GIS Communication of Spatial Concepts. Paper presented at International Conference on Systems, Computing Sciences and Software Engineering (SCSS 09) (part of International Joint Conferences on Computer, Information, and Systems Sciences, and Engineering, CISSE 09), 2009.

**SABBATICAL
LEAVE
2009-10**



Caryl Yzenbaard
Chase College of Law

**Bogert & Yzenbaard, Trusts and Trustees,
3d, 471-510 West 2009**

Currently, there are two nationally well known and highly respected treatises on trust law: the Bogert series on *Trusts and Trustees* and Scott on *Trusts*.

I was approached to rewrite one of the volumes in the Bogert series. It is a volume which is dedicated solely to the issue of constructive trusts. A constructive trust is a device in equity used by a court to compel one who unfairly holds a property interest to convey that interest to another to whom it justly belongs. Thus, a constructive trust is imposed in order to correct unconscionable or unethical conduct. It may be used in a personal or in a business setting. A trust may be imposed for the breach of a duty by a fiduciary including a corporate fiduciary. A common imposition is to prevent unjust enrichment. It is a growing and evolving area of the law. Every day, I receive updates on new decisions involving the constructive trust doctrine.

The researching and writing of the volume took three years (the last of which was the sabbatical year). The volume was published in December of 2009. The first Supplement to the volume was published in 2010.

As a national book, it is found in most, if not all, law firm, bar association and law school libraries. Other subscribers include practitioners and governmental entities. It is cited with regularity by courts throughout the nation. In my opinion, this book involves scholarship, publication and public engagement at its best. The approach I took with the book (by the omission of repetitive cases from the same jurisdiction and the inclusion of cases from more jurisdiction) has made the volume more understandable.

The sabbatical year also gave me time to think, reflect, and write on other issues. I was able to complete a rough draft on an article concerning Kentucky's unique intestacy laws. I also wrote a children's short story. Finally, and perhaps of utmost importance, the sabbatical year left me feeling refreshed and eager to return to the classroom.

