PAPER SESSION ABSTRACTS
2003 ILLINOIS GEOGRAPHICAL SOCIETY MEETING
QUINCY, ILLINOIS

(Abstracts appear in alphabetical order, by last name of first presenter.)

Norman C. Bettis and Darrell P. Kruger (Illinois State University) **GEOGRAPHIC EDUCATION RESEARCH NEEDS IDENTIFIED IN NAEP DATA FOR 2001.** The results from the second NAEP assessment were released in June of 2002 in a publication entitled *The Nation's Report Card: Geography 2001.* Chapter 4 reports data on teacher and student variables associated with the teaching and learning of geography. Much of this data challenges long-held assumptions of geographic educators about student learning of geography. This session will examine a number of graphs depicting relationships between certain contextual variables and student performance, and suggest several hypotheses that might become the focus of research in geographic education. Audience participation will be invited.

Jessi Collison (Augustana College) **TEACHING GEOGRAPHIC CONCEPTS TO SEVENTH GRADERS.** Through the implementation of a unit, seventh graders were evaluated on their overall geographical understanding of particular concepts. The unit focused on map skills but incorporated other aspects of the field of geography, too. In order to reach all of the students, a variety of teaching approaches were used, from lectures, to independent work, to hands-on group projects. The students were evaluated through informal and formal assessment procedures.

Kyle Thomas Evered (Illinois State University) **THE EVOLVING PLACE OF TURKEY IN THE GLOBAL GEOPOLITICS OF ENERGY RESOURCES: THE BAKU-CEYHAN PIPELINE EXAMINED.** Since the collapse of the Soviet Union, the Caucasian and Central Asian republics of the post-socialist region have been a focal point in the evolving geopolitics of global energy resources. Associated with this region's renewed significance in the eyes of the West, Turkey has also emerged as an important actor. This paper examines the evolution of Turkey's position in the global geographies of energy resources, the varied and often-competing interests that are at play, and the most visible manifestation of these new geographic relationships in the world—the Baku-Ceyhan pipeline.

Matthew Fitzgibbon (Northern Illinois University) **THE SPATIAL VARIATION OF LABOR PRODUCTIVITY AND ITS RELATIONSHIP TO POPULATION DENSITY—U. S. INDUSTRIES AT THE COUNTY LEVEL IN 1997.** This paper examines the spatial distribution of labor productivity in U. S. industries and tests the relationship between labor productivity and population density, as measured at the county level for the 48 contiguous states. The hypothesis is that economic output per worker increases as population density increases. External economies of scale, or economic benefits experienced by the agglomeration of economic activities, may be most evident in large cities or populous areas. Because firms in more populous areas experience stronger economies of scale, production output per worker is expected to be greater than production output per worker in less populous areas.

Stephanie George (Illinois State University) **ILLUSTRATION EVOLUTION: TAKING MAPS FROM CONCEPT TO PUBLICATION.** Creating and designing maps can be a lengthy process, which demands time and hard work. For my Field Geography class in the fall of 2002 I had to research, create, and design at least two maps for the final project on a residential subdivision of my choice. One required map was to show general

location in the Bloomington-Normal, Illinois, area; and the second was to be a thematic map showing one element of the subdivision itself. Throughout this presentation, I will demonstrate the cartographic course these two maps took, from beginning to end.

Brittany Heaton (Western Illinois University) **COORDINATION IN RURAL TRANSIT: A CASE STUDY IN MCDONOUGH COUNTY, ILLINOIS.** Providing reliable public transportation to rural populations continues to be a problem in rural areas. This paper examines the existing transit conditions of McDonough County, Illinois, including the human and spatial characteristics of the area. Transportation coordination is discussed as a strategy to address the fragmentation of transit that occurs in many rural areas. A framework for McDonough County transit agency coordination is provided, including various system alternatives. The application of the framework to other rural counties in Illinois is also assessed.

Mark L. Hildebrandt and Kathleen McBride (Southern Illinois University-Edwardsville) **A COMPARISON OF DIURNAL AIR POLLUTION TRANSPORT IN TWO URBANIZED VALLEYS.** Phoenix, Arizona, has high air pollution levels and displays evidence of diurnal thermally driven “sloshing” during periods of atmospheric stability. In this study, we compare the transport of lower atmospheric pollution in Phoenix with the daily variability of air pollution in another urbanized valley, Kathmandu, Nepal. We have found evidence that the physical setting of Kathmandu partially accounts for the diurnal variability of pollutant levels in the capital city of the Kingdom of Nepal. We also suggest that other factors, such as vehicular traffic and industrial emissions, account for some of the variability in Kathmandu.

Mark D. Hunt (Augustana College) **CREATING A GREEN MAP OF THE UPPER MISSISSIPPI RIVER.** This presentation will cover the methods used and knowledge gained while participating in the Green Map System™, a non-profit organization that supports locally made community maps as a venue for cultural and environmental awareness. The region covered includes the banks of the Mississippi River from the Quad Cities to Iowa/Minnesota border.

Darrell P. Kruger (Illinois State University) **MONROE VIGNETTES.** Following its founding as Fort Miro in 1785, this Spanish outpost on the Ouachita River grew into a fledgling settlement renamed Monroe (Louisiana) in 1819. It enjoyed its golden years during the first quarter of the twentieth century as the “Natural Gas Capital of the World.” Although Monroe sprung from diverse Spanish, French, Italian, and Jewish roots, by the mid-nineteenth century it was clearly part of the Upland South—dominated by Protestant, Anglo-Saxon, yeoman farmers beyond the confines of plantations along bayous and rivers. This paper provides Monroe vignettes with slides of people, places, and events that shaped Monroe through time.

Zach Moore (Western Illinois University) **TO CONSOLIDATE, OR NOT TO CONSOLIDATE: A TOUCHY QUESTION FACING RURAL ILLINOIS.** School consolidation in rural Illinois has again become a major topic over the past several years. Many experts in the education field, along with state officials overseeing public education, view consolidation as the best method for improving the rural education setting. While consolidation may be the answer to some, many of the rural residents in Illinois are not on the same page. These rural residents who oppose school consolidation feel that it will take from their identity, pride, and sense of community. So, as the process of consolidation seems to grow closer, the line between supporters and opposition also becomes more evident.

Jason Pedersen (Augustana College) **UNIVERSAL TRAIL ASSESSMENT PROCESS.** The Universal Trail Assessment Process (UTAP) objectively documents the actual conditions in outdoor, natural environments. UTAP is a tool that land managers, agencies, and individuals can utilize to learn about, monitor, and improve use of any outdoor path of travel. UTAP measures trail grade, cross slope, width, surface type, and obstacles.

The dimensions and locations of obstacles such as tree roots and drop-offs are all documented. For my study I assessed the Pierce Lake Trail at Rock Cut State Park and the Rock River Trail at Blackhawk State Historic Site using the Universal Trail Assessment Process.

Kyle Peterson (Western Illinois University) **WHAT EFFECTS DO BRANCH PLANTS HAVE ON RURAL ECONOMIC DEVELOPMENT?** After World War II many corporate firms placed branch plants in rural areas because of cheaper labor costs. Today many of those same areas are losing branch plants to cheaper labor in other countries. Globalization poses several challenges for rural developers, who must work with the branch plants to ensure that they can compete with the outside world so that their rural communities can survive. Communities need to meet with the companies owning the branch plants to find a strategy that will aid both the community and the plants. Impact of branch plants can be either good or bad.

Jaclyn Pfeiffer (Augustana College) **SPRAWL VS. SMART GROWTH: RESIDENTIAL DEVELOPMENT IN OSWEGO, ILLINOIS.** The past few decades in America have seen an enormous amount of residential development. In studying growth patterns, it is important to concentrate beyond development schemes to specific developments, like subdivision construction. In Chicago's quickly expanding urban fringe, development within Oswego, Illinois, was closely examined. Using standards set forth by geographic journals and professors, development principles were used to assess how Oswego's 21 constructed subdivisions measure up on a green scale and the results were used to put Oswego's growth patterns in a larger context.

Shawn Sample (Western Illinois University) **THE PROCEDURES AND RESULTS OF THE MONMOUTH, ILLINOIS, HOUSING ASSESSMENT.** Monmouth, Illinois, lacks available housing for low, middle, and high-income residents. Monmouth needs to improve its zoning and code enforcement practices. Through a visual housing assessment, the conditions of Monmouth's neighborhoods have been rated as poor, moderate, or high on proper maintenance and appearance. In addition to the visual housing assessment, a mail survey and focus groups have been conducted to determine what type of housing is needed in Monmouth. The purpose of the Monmouth housing analysis is to help leaders determine housing improvement priorities and for it to be used as a reference source when seeking state funding assistance.

John D. Schroeder (Joliet Junior College) **THE HEMPSTEAD PLAIN: ITS ORIGIN AND RELATIONSHIP TO THE PRAIRIE PENINSULA.** It has long been accepted that naturally occurring tall-grass prairies are not found east of central Ohio. Yet grassland species and associations are found in a variety of habitats from western Pennsylvania, through the Mohawk Corridor, in Ontario, and in high-altitude locations in the Alleghenies and New England. Prominent among these grasslands is Long Island's Hempstead Plain, originally over 40,000 acres in size, though now much reduced. This paper seeks to determine whether these remnants qualify as authentic tall-grass prairies, and presents tentative conclusions as to their time and manner of establishment.

Wendy Shaw (Southern Illinois University-Edwardsville) **A GEOGRAPHIC ANALYSIS OF ACT SCORES IN ILLINOIS; A VIEW FROM THE SCHOOL DISTRICT LEVEL.** ACT standardized testing is frequently used to assess students' academic achievement, and scores are often viewed as a measure of the effectiveness of school systems. Illinois uses the ACT as an assessment tool and disseminates the results as one measure of the quality of education in the state. Previous geographic analysis of ACT scores in Illinois focused on the spatial level of the county. This paper uses school district level data to more thoroughly investigate the spatial dimensions of Illinois' ACT scores and related characteristics.

Michael J. Starr (Southern Illinois University-Edwardsville) **ASSESSING THE IMPACT OF URBAN SPRAWL ON NATIVE BIODIVERSITY IN THE MIDWEST.** Urban sprawl has increased significantly during the last 50 years, with ever more people moving outward from city core regions, converting the rural lands adjacent to

these communities into suburban developments. The result of this growth has been an increase in local pollution and traffic congestion as well as a decrease in biodiversity on lands within and adjacent to these developments. Therefore, more studies are needed to assess the effects of such human land uses on native plants and animals. This paper suggests a method for effectively measuring and monitoring human use impacts in a wide variety of environmental settings.

Marc Strobbe (Western Illinois University) **THE GEOGRAPHY OF GREEN FORAGE HYDROPONICS.** This paper analyses agricultural land use and rural development in the Midwest. Modern agriculture created a trend toward farm consolidation with its focus on large scales for production efficiency. The Goldschmidt Hypothesis confirmed a correlation between the loss of small farms and rural decline in the Midwest. The alternative agriculture strategy, Green Forage Hydroponics (GFH), was globally examined to determine its viability in the Midwest. This study analyzed GFH use in Australia, South Africa, South America, and Eastern Europe. GFH is presented as a resource to halt the loss of small farms and lower the amount of land used for agricultural production.

Melanie Wellman (Western Illinois University) **ILLINOIS MAIN STREET REVITALIZATION PROGRAM.** The Main Street Program in Illinois focuses on downtown revitalization and, in particular, historic preservation. There are a number of towns in Illinois that take part in the Main Street Program, using what is called the “Four Points Approach.” St Charles is an example of one town that has followed this approach, and has a beautiful downtown to prove it. The various ways of achieving a revitalized downtown can be seen by examining different success stories from towns that participated in this program.

Robert Wise (Illinois State University) **ANOTHER GERMAN INVASION: LOCATIONAL RELATIONSHIPS BETWEEN GERMAN IMMIGRANT SETTLEMENTS AND MODERN BEER PRODUCTION IN THE UNITED STATES.** Many of the Germans that settled in the United States chose to remain in pockets of their own ancestry. In parts of the country, pockets still remain of concentrated German ancestry. As the Germans made the trip to the United States, they did not come here empty-handed. They brought perhaps their favorite pastime, personal production of beer. During my presentation I will give a brief history of German settlement patterns within the continental United States and contrast them with several dozen current-day brewery locations in attempt to look for a spatial relationship between German settlement and brewery locations.

Adam Woolfolk (Illinois State University) **ANALYZING PATTERNS OF CROPLAND IN THE MIDWEST, 1949-2001.** The basis for this presentation is the work of Professor John Carrier Weaver, a geographer who mapped the top three ranking crops for each county in thirteen midwestern states and used the results to analyze crop patterns. For my presentation, I will update his 1949 maps and produce new maps for periodic years between 1949 and the present, ending with 2001. My new maps show the first and second ranking crops by county for Illinois and for Missouri, Iowa, Wisconsin, and Indiana. Using my maps and Weaver’s, I will analyze agricultural trends over the last half-century.

Keith Yearman (College of DuPage) **TAKING OSCAR NEWMAN TO THE EXTREME: PETIT APARTHEID AND LATINOS IN ROSEMONT.** Over the past decade, street barriers and gated communities have proven oft-utilized tools in the “fight against crime.” Street barriers, which are often publicly financed, differ from the gates surrounding many private communities and privately owned streets. Yet such distinction has been blurred by the militarization of the Anglo-Latino divide in the city of Rosemont, Illinois. Through the creation of a publicly financed gated community, and the use of the village’s Public Safety Department and panoptic powers, Rosemont has institutionalized petit apartheid in an effort to expel the village’s Latino residents.

Bin Zhou (Southern Illinois University-Edwardsville) **THE CURRENT STATE OF BANKING GEOGRAPHY IN**

ILLINOIS. This paper investigates the current state of the geography of banking in Illinois. The focus of the investigation is the geographical distribution of banking facilities, deposits, and ownership linkages across the state. Variations in banking among northern, central, and southern Illinois, and between metropolitan and non-metropolitan counties are given special attention.

John W. Zwiebel (Western Illinois University) **USING A SPATIAL-EPIC GIS MODEL TO MAP HIGHLY ERODIBLE SOILS.** The purpose of my study is to develop a Spatial-EPIC (Erosion Productivity Impact Calculator) GIS Modeling System using the USLE (Universal Soil Loss Equation). It is hoped that the EPIC model will compute crop yields loss due to erosion of topsoil by measuring the relationship between climate change, erosion, and crop yields. Guidelines will include providing an understanding of the geographic variability of their fields (e.g., slope, soil, type), and employing various best management practices outlined by the Natural Resources Conservation Service to reduce soil erosion and chemical inputs through the use of precision agriculture, thus promoting a more sustainable type of agriculture.

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