Minnesota Applied Economist

No. 711 Winter 2004

A Newsletter for Alumni and Friends of the Department of Applied Economics University of Minnesota

Department Head's Notes

The department continues to move ahead on a number of new initiatives. Budget constraints limit some of the possibilities we would like to pursue, but we continue to identify areas that can be funded with grants, contracts, and support from the private sector. Here are some of the new initiatives faculty have pursued during the fall semester. I will highlight them here and refer you to articles in this issue for more information.

- The Food Industry Center cosponsored a conference with the National Grocers Association on "Steps to Healthy Living" during October 22–23, 2003. The conference focused on the obesity issue and how the food industry can help solve this national problem. Executives from major food companies and retail chains attended and discussed strategies they can use to help consumers make better food choices. Areas for research were also identified and faculty working in food marketing are pursuing funding for this work. A summary of the conference is provided in the article "Steps to Healthy Living Conference."

- In November, Professor Brian Buhr presented his study, "The Livestock Industry Benchmark Report," at the annual meeting of the Minnesota Agri-Growth Council. The report provides estimates of the value livestock and poultry add to the economy of the state, presents industry trends by species of animal, and proposes areas that need attention if Minnesota is to maintain/increase livestock production. With industry cooperation and support, faculty plan to provide this type of information in the years to come and will pursue a number of research areas identified in this study. More information is provided in the article "2003 Livestock Industry Benchmark Report" on page 3.

- The Minnesota Council on Economic Education negotiated an agreement with the University of Minnesota Extension Service to open a new Center for Personal and Family Financial Education on the St. Paul campus. The purpose of the center is to provide personal finance training for adults, particularly recent immigrants. The strategy is to have extension educators use the teaching materials available from the Minnesota Council in providing the training. Funding is being obtained from the private sector to pay much of the cost. See the related article, "Center for Personal and Family Financial Education," for more information on this and other new Council initiatives.

(continued on Page 2.)

In this issue...

- The department has been working with the College of Agricultural, Food, and Environmental Sciences and Extension administrators to imple ment the new system of regional extension educators. A key component of the new system is to link the regional educators to the faculty on campus. Professor Kent Olson has agreed to serve as an area program leader for the regional extension educators in the Agricultural Business Management program. The extension educators Professor Olson will serve are located in regional centers across the state and his task is to link them with department faculty and the most up-to-date research on any particular topic. Michael Darger, formerly with the Business Retention and Expansion Program in the Department, will do the same for regional extension educators in the Community Economics program.

- In the fall of 2004, the department will begin offering a new master's degree with an emphasis on econometrics. This degree is designed to appeal to students who plan to enter the work force directly after graduation, and requires additional coursework using econometrics to analyze large data sets. The core courses will be offered late in the day in an effort to attract students who are already in the work force and do not want to become full-time students. More detail is provided in the article "New Econometrics Emphasis in Our M.S. Program."

- Professor Paul Glewwe is organizing a Minnesota International Development Conference for April 2004. Sponsored by the Center for International Food and Agricultural Policy, the conference will cover all aspects of international development and is expected to attract a wide audience of international scholars. We anticipate that this will become an annual conference and will complement the active research programs of the departmental faculty. The article, "Register Now for the Economic Development Conference," gives more information about this upcoming conference.

In closing, I hope you enjoy hearing about the department's ongoing initiatives and will take a look at some of the department's most recent publications (for a short summary of each, see the "Recent Publications" section in this issue). As always, I welcome your questions, comments, and suggestions.

Vernon Eidman

Upcoming Seminars in the Department

For further information on these and future seminars, see the departmental website:

http://www.apec.umn.edu/DeptEMS

April 2 - Kim Zeuli, Department of Agricultural and Applied Economics at University of Wisconsin-Madison, Title TBA.

April 5 - Mary Lovely, Syrcuse University, "Foreign Direct Investment and Pollution Havens: Evaluating the Evidence from China"

April 9 - Aldo Rustichini, Department of Economics at University of Minnesota, Title TBA

April 12 - Rebecca Judge, St. Olaf College, Title TBA.

April 16 - Margot Rudstrom, Applied Economics, Title TBA.

April 23 - GianCarlo Moschini, Department of Economics at Iowa State University, Title TBA.

April 23 - Michael Martin, University of Florida, "A Few Observations About the Economics of University Administration"

April 26 - Jennifer Jorgensen, Applied Economics, Title TBA.

April 30 - V. V. Chari, Department of Economics at University of Minnesota, Title TBA.

May 3 - Steve Taff, Applied Economics, "Optimal Landscapes"

2003 Livestock Industry Benchmark Report

Professor Brian Buhr presented his 2003 Minnesota Livestock Industry Benchmark Report at the annual Agri-Growth Council meeting in November. The report presents an economic portrait of animal agriculture in Minnesota, including the value added to the state's economy as well as the trends in production and profitability by species of livestock and poultry. In addition, the report gives an assessment of the business climate for future investments in livestock and poultry production and processing in the state.

The report shows that Minnesota animal agriculture adds $5.2 billion of direct economic activity annually; $2 billion is added by crop production and $3.2 billion is added by processing animal products. Dairy and swine production are the two major contributors to these totals. Swine account for $1.2 billion of direct economic activity and have gained a larger share of the national market in recent years, but the number of dairy cows, which account for $3 billion in direct economic activity annually, are decreasing. Since 2000, 47,000 cows have been lost from the state, lowering direct economic activity by $235 million. Beef production, however, has been relatively constant. In contrast, broiler and turkey production have both increased over the past decade. The report discusses the reasons for these changes in more detail.

The report notes that the parts of the industry that are expanding have fit into the major trends changing the livestock industry. These are production that is decoupled from crop production and is part of a coordinated supply chain, producing branded products for sale in global markets. These producing units are typically quite large by historical standards and are operated using modern business practices. Dairy has not been as successful in adjusting to these trends as other types of livestock and poultry. The report suggests that dairy needs an injection of human capital and a major investment in modernization of production and processing facilities to be more competitive with other regions of the country.

The major finding is that township and local governance of permitting is the key constraint to livestock expansion for dairy, as well as livestock in general in Minnesota. Those in the industry as well as other members in society agree that maintaining high environmental standards in Minnesota is essential. However, the ability to indefinitely prevent building / expanding livestock operations that have provided plans to meet all environmental requirements is limiting the flow of capital and other resources for efficient growth of the livestock sector.

From the Benchmark Report:

Animals are engines of Growth in Rural Minnesota.
Direct economic activity generated by one:

- *Dairy Cow = $5,000*
- *Sow = $2,000*
- *Beef Cow = $1,636*
- *Turkey = $11.68*
- *Broiler = $2.18*

New Econometrics Emphasis in Our M.S. Program

The department will begin offering a new emphasis in the master's program during the 2004–05 academic year. The new emphasis will provide graduates with more experience in applying econometrics to large data sets—a skill many employers are seeking. This new emphasis is designed to respond to the following concerns.

- In recent years, employers in the private sector and government have indicated they would like to hire students with graduate-level training in economics and how to manage and analyze large data sets. At many companies, we have learned, those who conduct economic analyses sometimes have difficulty working with technical people—such as computer programmers—and vice versa. Moreover, these employers have told us they would like to hire more people who can bridge this gap.

- We also hear from potential students who want training in economics and data analysis. Our current offerings in econometrics are strong, but they do not emphasize how to analyze large data sets. Both students and employers therefore are interested in a program that goes beyond econometrics and prepares people to work with truly large, commercial data sets.

- Many, though not all, of these students also ask whether they can pursue a master's degree in the evening. To date, we have not offered evening courses—but this is about to change!

Beginning in the 2004–05 academic year, we will offer a new option in our master's that—we believe—will address the concerns of both students and employers. First, we are adding a second econometrics course to the master's program about analyzing large data sets; and second, we are scheduling our four core master's-level courses in evening time slots (and may move other courses to the evening in future years).

A Second Course in the Master's Econometric Offerings

The new course, called "Economic Data Analysis for Managerial and Policy Decisions," will teach students statistical and econometric methods for analyzing large data sets to support managerial and policy decisions. It will also cover methods for organizing, accessing, and ensuring the quality of data. In addition, the new course will include estimation techniques not covered in the first econometrics course—such as methods for analyzing panel data, using limited dependent-variable models, and conducting time-series analyses.

Who is Expected to Take the New Emphasis?

Many of the students who enter the M.S. program will use this new degree as a terminal degree that equips them for jobs in industry or government. Others, however, may use the M.S. program as a way to prepare for Ph.D. work. Both types of students, however, will be at home in the new, expanded program. Indeed, apart from the evening course offerings, students will be able to complete the degree in the same time-frame they do now. We expect enrollment to increase significantly and we anticipate the new course will be of interest all our master's students—and some Ph.D. students as well.

Would you like to receive the
Minnesota Applied Economist
electronically?

Do you have suggestions on how we can improve this newsletter?

We would love to hear from you!
Please contact us at
msulliva@apec.umn.edu

Steps to Healthy Living Conference

The Food Industry Center (TFIC) cosponsored a conference with the National Grocers Association (NGA) on "Steps to Healthy Living" on October 22–23, 2003 at the McNamara Alumni Center at the University of Minnesota. With almost two-thirds of adult Americans overweight or obese and estimated direct and indirect health costs of $117 billion annually, the food industry is coming under increasing pressure. Members of TFIC do not believe it is reasonable or fair to blame the industry for this problem; its causes range from human behavior to lack of information. However, the food industry can contribute to the solution. There are opportunities for companies in the industry to both "do well and do good" by helping to address this issue. Food businesses may be able to become more profitable by helping consumers to eat and live more healthfully—which is to say, food companies can both do well and increase profits and do good and help people lose weight.

Speakers at the conference included: Dr. William Dietz, MD, Director of Nutrition and Physical Activity at the Center for Disease Control; Dr. Kenneth Cooper, MD, and Dr. Dean Ornish, MD, medical experts on weight loss who are working with Frito-Lay to develop healthier snacks; and Dr. James Hill, a founder of Colorado On The Move, one of the most successful community physical activity programs in the U.S. Other panel participants included in the conference program were J. B. Pratt, who trained as a medical doctor and is currently president of Pratt Food, a supermarket chain in Oklahoma; Brock Leach of PepsiCo.; and Frank DiPasquale, senior vice-president at NGA.

The two major goals of the conference were 1) to stimulate a dialogue among participants, particularly those from the food and health-care sectors; and 2) to identify opportunities where food businesses can both "do well and do good" by helping their customers adopt healthier eating and exercise habits. Although the main focus of the conference was on how manufacturers and large supermarket chains can improve the public's heath by developing more healthful foods and encouraging better eating habits, everyone in the industry—including small retailers—could benefit from the conference's principal recommendations – encourage people to walk more every day; provide consumers with low calorie options; and increase access to meaningful nutritional information.

Conference's Principal Recommendations to the Food Industry:

** Encourage people to walk more every day*
** Provide consumers with low calorie options*
** Increase access to meaningful nutritional information*

The conference was supported financially by the NGA, TFIC, the department's Center for International Food and Agricultural Policy, Kraft Foods, Kellogg, and PepsiCo.

The Food Industry Center
UNIVERSITY OF MINNESOTA

Waite Library: A Living, Dynamic Memorial

Dr. Warren C. Waite was a very productive faculty member of the department from 1924 until his sudden and unexpected death November 11, 1950. As a faculty member, he emphasized teaching and research in agricultural prices, statistics, and consumption economics. His publications include 3 books, 19 journal articles, 10 experiment station bulletins, and 53 articles for lay audiences. Dr. Waite was very active in working with government agencies and professional associations. He was granted leave from 1928 to 1930 to serve with the Bureau of Agricultural Economics and worked with other government agencies for shorter periods at various times during his career. He was active in the Farm Economics Association (currently the American Agricultural Economics Association) and served as Association vice-president in 1935, as editor of the Journal of Farm Economics from 1944–49, and as president of the Association in 1950. He was also the Association's representative on the National Bureau of Economic Research from 1947 until his death.

The Waite Memorial Library was established in 1951 under the sponsorship of the Agricultural Economics Club as a memorial to Dr. Waite. The core of the initial collection consisted of about 350 books and numerous journals. Dr. Waite's private collection was donated by Mrs. Waite for the use of the graduate students and faculty in the Department of Agricultural Economics. A memorial fund was established at the time of Dr. Waite's death and additional books and journals were purchased with funds from his friends, associates, former students, and faculty members in the department. We continue to add to the holdings of the library by making annual funding assessments on each member of the department.

In the Early Days, Students Managed the Library

How the library has been staffed has changed over time. From 1951–72 the library was staffed and managed by students who were members of the Agricultural Economics Graduate Student Club. Each year the club elected a librarian and assistant librarian, but the records do not show whether these positions were highly sought after! However, as the library's holdings expanded over the years, the demands on these positions increased, and the Library Committee realized that additional help was needed. As a result, in 1972, the department hired David Genaway, a graduate student in library science, who took over the responsibility of managing the facility. In addition to making the collection more accessible, David also supervised the library's move from Haecker Hall to its current location in the Classroom-Office Building. When David graduated in 1976, Emilie Quast took over as librarian and continued in the position until December 1978. Our current librarian, Louise Letnes, assumed her duties on a part-time basis in January 1979. Her tenure includes the time someone set fire to the library in 1982, which required a great deal of effort on her part to determine what had been lost, as well as cleaning up the collection and replacing the items that were lost in the fire. In 1984 Louise's appointment was increased to full time, and Sharon Kill was added in 1988 to provide additional staff resources to help carry out the expanded role assigned to the Waite Library.

The library holdings have increased over time and the library serves as the departmental archives. In this capacity it includes all publications by departmental members, including Ph.D. dissertations, Masters theses and Plan B Papers. Departmental publications are publicized each year in a "List of Departmental Publications." The list for 2002 is available at
http://www.apec.umn.edu/misc/pubbook2002.html

The Waite Librarians:
Sharon Kill and Louise Letnes

The librarians moved to an online catalog in 1995. This can be used in the library or over the World Wide Web. To access the card catalog from a remote location, enter the departmental web page www.apec.umn.edu, select data and library resources, and click on Waite Library. Follow the directions to search for publications by subject matter area, by author, publisher, or in other ways. Students and faculty in the department also have access to many electronic data series and journals from the library. The librarians assist with literature searches and in locating sources of data. They also maintain the departmental web page.

The Library Today

Today the Waite Library has over 30,000 volumes and currently receives over 70 journals and 60 trade magazines. The Waite librarians provide many services to many constituencies—in the department and around the world. For example, in a cooperative effort with the University of Minnesota Library, one of the services they provide to economists worldwide is AgEcon Search (http://agecon.lib.umn.edu), a full-text database of current working papers, conference papers, and journal articles. AgEcon Search currently has over 12,000 papers available on line. It received over 250,000 hits during 2003. For more information about AgEcon Search, go to the 2003 spring/summer issue of the Minnesota Applied Economist at http://agecon.lib.umn.edu/mn/mae709.pdf. Other services provided by the librarians include locating sources of data, conducting literature searches, and maintaining the department's web pages.

The Waite Library is a unique institution because it gathers under one roof much of the interdisciplinary literature in the fields of agricultural and applied economics. For example, the library collects working papers, conference proceedings, and other "gray" literature that is often difficult to access from other libraries in the U.S. Finally, one of the most important resources in the Waite Library are the librarians themselves. They are a vital part of the department's continuing success in three critical areas—teaching, research, and Extension.

Students Like New Classroom PRS Technology

The Personal Response System (PRS) is a new classroom technology that is gaining popularity among instructors in the Department of Applied Economics and other teaching units in the College of Agricultural, Food, and Environmental Sciences. In a nutshell, each student in a class is given a TV-remote-control-like transmitter that is programmed to communicate wirelessly with the instructor's computer as well as the affiliated projector and central display unit. The PRS enables students to respond privately to a multiple-choice question posed by the instructor and, at the end of each question period, view a statistical summary (a histogram) of the answers given by all the students in the class. Alternatively, the PRS can be programmed to display individual student answers—identified by student name or ID number. The instructor can also use the PRS to grade the students' answers and update the grade book for the class.

Dr. Donald Liu, associate professor in the department, used the PRS last fall in his course, "Principles of Microeconomics" (ApEc 1101), which had about 230 students. According to Dr. Liu, the two major objectives underlying his adoption of PRS technology were 1) to enhance student participation and 2) to obtain timely feedback from his students.

Enhancing Student Participation

Dr. Liu has observed from his many years of teaching that a lot of undergraduate students, while very intelligent and conscientious, are reluctant to engage in classroom discussions. With the PRS, however, students can answer questions anonymously—without worrying about "making a fool of themselves" in front of their peers. Further, because their answers can be graded, students are "inspired" to come to class more prepared and are "compelled" to participate in the "digital dialogue." To help students feel comfortable in his class, Dr. Liu pointed out that his questions were never intimidating, that his students

(PRS article continued on page 8.)

(continued from page 7.)

were always given plenty of hints about how to proceed with solving a problem, and were allowed to engage in limited discussions with other students.

Obtaining Instant Feedback from Students

Another advantage of the PRS is its ability to provide instant feedback to both the instructor and the students. Dr. Liu, for example, used the PRS to track his students' comprehension of a topic as the lecture progressed. Typically, he would cover three topics in a given lecture and, on completing each topic, would ask a pre-set question to assess the extent of the students' comprehension. Sometimes Dr. Liu reversed the process by asking a question before he introduced a particular topic. This technique, he found, made students more curious about what they were about to learn.

Students Like the New System

Dr. Liu received many positive comments from the students who used the technology in his microeconomics class. First, students found the intermingling of lecture and PRS questions refreshing because it helped them stay focused and alert. Student also felt this approach helped them learn the material better and gave them something concrete to bring home when they left the classroom. Second, students were not intimidated or offended by the frequent PRS questions Dr. Liu used in class. In fact, they welcomed the opportunity to earn points that could improve their grades.

Near the end of the semester, Dr. Liu conducted an anonymous survey—using the PRS—asking students to rate the new technology. The survey results are encouraging; fully 78% of students either "agreed" or "strongly agreed" (and only 18% "slightly agreed" and 4% "disagreed") that the technology had enhanced their learning in class. When asked whether the intermixing of the lecture and PRS questions had interrupted the normal flow of a typical lecture, 56% of students chose "no interruption," 27% chose "slight interruption," 11% chose "some interruption," and 6% chose "significant interruption." Dr. Liu, however, believes this problem will become less of an issue over time as students become more familiar with the PRS.

Equipment for the PRS system

Like All New Technology, There Are Drawbacks at First

Drawbacks of the PRS include the classroom time lost at the beginning of the semester while students are taught how to use the PRS and are required to enter their personal information—such as name and student ID—into the system. In addition, the instructor must devote a certain amount of time before each lecture setting up the PRS, which reduces the amount of time available before class for interacting with the students. Finally, there is the cost of the transmitters, which would presumably have to be borne by the students. In this instance, however, we were fortunate because Dr. Ann Duin, Associate Dean for Academic Programs in the College of Agricultural, Food, and Environmental Sciences provided us with the PRS software as well as the required transmitters, all at no charge. Dr. Liu and his students greatly appreciated Dr. Duin's effort in strengthening the learning environment of the students.

Clearly, the students were winners in this experiment with PRS technology and they were aware of that. In his end-of-semester survey, 78% of them recommended Dr. Liu continue using the PRS in future classes. Praise indeed!

Center for Personal and Family Financial Education

Patricia Olson

In a unique collaboration involving the Department of Applied Economics, the College of Human Ecology, and the Minnesota Extension Service, a new Center for Personal and Family Financial Education has opened under the auspices of the department's Minnesota Council on Economic Education. Patricia D. (Trish) Olson, Ph.D., Program Director in the College of Human Ecology, is the Center director.

The mission of the Center for Personal and Family Financial Education is to enhance the financial management knowledge and skills of low- and moderate-income individuals and families. The focus of the Center's work will be on supporting the efforts of grassroots community educators in providing this financial management education to their clientele.

Specifically, the Center will:

> offer professional development workshops to help prepare community educators deliver personal finance education to their clientele;

> work with community educators to identify and adapt personal finance curriculum materials to suit their specific clientele; and

> serve as co-teachers and mentors as the community educators offer workshops and courses to their clientele.

Center services will be delivered throughout the state, primarily through affiliated extension educators specializing in family resource management.

Providing economics-based personal finance training for community educators is critical. Federal Reserve Board Chairman Alan Greenspan has underscored the essential role of financial education programs in promoting homeownership, small business development, household savings, education, and long-term financial health for individuals, families, and communities. He notes, "Financial education and training programs may be the most critical service offered by community-based organizations to enhance the ability of lower-income households to accumulate assets."

For more information about the Center, contact Trish Olson (pdolson@che.umn.edu) or Minnesota Council on Economic Education Director Claudia Parliament at cparliam@apec.umn.edu.

RECENT PUBLICATIONS

For information on locating a copy of a publication not available on the Internet, contact the underlined author at the department by calling 612-625-1222.

GLOBAL PERSPECTIVES

Book Review of "*Determinants of Economic Growth: A Cross Country Empirical Study* by Robert J. Barro. Cambridge, MA: MIT Press, 1995" by Terry Roe. This study, conducted by one of Harvard's well-known economists, was among the first to 1) try to explain why some countries are so rich and others so poor; and 2) provide insights into the key factors that will cause the per capita income of the poor to eventually approach that of the rich—and ask the question, "Is this just not possible?" In other words, is it possible that just by being born in a poor country, the typical individual stays poor forever? Barro's analysis shows that, even if a country is not rich in natural resources, it is possible—though not really likely—its per capita income will approach that of rich countries. The key factors helping poor countries increase the income of their citizens include education, quality of health, rule of law, democracy, and efficient government. The real problem is that we just don't know how to induce development of the latter three factors, and without them, a country can stay poor forever. *American Journal of Agricultural Economics*, v.85, no.4, November 2003.

The Economic Costs of Conserving Genetic Resources at the CGIAR Centers by B. Koo, Philip Pardey, and B. D. Wright. The 11 genebanks of the Consultative Group on International Agriculture (CGIAR) have grown considerably in size over the past few decades and currently hold about 666,000 accessions of germplasm. Conserving germplasm, however, requires long-term funding—that is, consistent, reliable funding over many years. Currently, there is concern about how this conservation effort will be funded in the future because, today, most funding is provided on an annual—not a long-term—basis. Using the results of five CGIAR genebank case studies (accounting for 87% of the total CGIAR genebank holdings), we estimate the size of an endowment or trust fund that would be required to assure a funding stream to conserve this genetic material for future generations. *Agricultural Economics*, v.29, no.3, December 2003.

Effects of Coral Reef Attribute Damage on Recreational Welfare by Naomi Zeitouni, et al. This paper presents the results of an economic valuation of coral reef degradation at Eilat, a town on the Red Sea in Israel. We estimate the marginal prices of coral and fish diversity and water visibility at US \$2.60 and US \$1.20 per dive, respectively. From the standpoint of recreational diving welfare, the annual social costs of activities contributing to coral reef degradation are approximately US \$2.86 million. To our knowledge, this is the first economic valuation of individual coral reef attributes and the first application of a choice experiment to coral reef valuation. *Marine Resource Economics*, v.18, no.3, 2003.

Markets, Trade, and the Role of Institutions in African Development by Terry Roe. Geography, international trade, and institutions are often cited as reasons for the disparity in income among nations. The paper reviews these arguments and focuses on the interdependence between institutional reform and foreign trade. Countries must export to import, and opening an economy to world markets induces institutional change, which facilitates increased rates of economic growth. Drawing upon previous work, it is shown that agricultural policies in advanced countries are a barrier to sub-Saharan agricultural exports and, thus, a barrier to institutional reform. An analysis of growth in factor productivity in South Africa is shown to increase transition and long-run growth sustainability. Paper presented at Key Elements of an Economic Growth and Agricultural Strategy for Africa Conference, University of the Free State, Blomfontein, South Africa, August 21, 2003.

An Option Perspective on Generating and Maintaining Plant Variety Rights in China by Bonwoo Koo, Philip Pardey, et al. Notwithstanding the ambiguous research and productivity promoting effects of plant variety protections (PVPs) in developed countries, many developing countries have adopted PVPs in the past few years, in part to comply with their Trade-Related Aspects of Intellectual Property Rights (TRIPS) obligations. Seeking and maintaining PVPs reserves options to an expected revenue stream from the future sale of protected varieties, the value of which varies for a host of reasons. In this paper, we empirically examine the pattern of PVP applications in China since its PVP laws were first introduced in 1997. We place those PVP rights in the decisions to develop and apply for varietal rights. Staff paper P03-8. http://agecon.lib.umn.edu/mn/p03-08.pdf

Rural Finance Institutions, Markets, and Policies in Africa by Glenn Pederson. The objectives of this paper are three-fold. First, the paper describes the general economic relationship between the development of financial markets and economic growth. The purpose is to understand why financial markets have an impact on economic growth. This discussion is extended to consider why rural finance has important roles in economic growth, food security, and poverty reduction. Second, the paper summarizes recent developments in rural finance from the perspective of "best practices" and the perception that there is a need to deepen (and make more sustainable) the rural financial markets in developing countries. Third, the paper identifies one of the key gaps in rural finance, based on recent international experience. Paper presented at Key Elements of an Economic Growth and Agricultural Strategy for Africa Conference, University of the Free State, Blomfontein, South Africa, August 21, 2003.

Strategic Behavior Between Countries in a Two-Period Uncertain Monopoly by Daniel Petrolia. It is the objective of this article to present a two-period, game-theoretic analysis of the strategic behavior of countries with regard to intellectual property rights, focusing explicitly on the role of a probability of discovery. By choosing more stringent patent protection, a country is necessarily reducing the probability of discovery by competitors. Thus, this analysis explicitly models the level of probability as a strategy for countries. Further, this model will introduce into the set of strategy choices the level of output chosen by monopolists. *Journal of World Intellectual Property*, v.6, no.5, September 2003.

Will Food Safety Jeopardize Food Security? by Jean Kinsey. When food production in developing countries meets world safety standards, they can participate more effectively in the export market and raise the quality and safety of domestic food as well. Food safety does not jeopardize food security because unsafe food and water jeopardize the health of people and inhibit long-term economic development. People who are ill cannot work, get an education, or deal effectively in world commerce. Presented at the 25th International Conference of Agricultural Economists, August 16–22, 2003, Durban, South Africa, 2003.

The WTO and Agricultural Trade: Issues for Latin America by G. Edward Schuh. First, the presentation provides an overview of the broad lines of economic development and trade policy during the post-World War II period. Then, it sketches out broad lines of some examples of economic integration in the region. Finally, it discusses some of the key issues on the agenda of Latin American policy-makers as they consider the current round of WTO trade negotiations. Presented at Symposium on Developing Countries in the Current WTO Negotiations, American Agricultural Economics Association Annual Meeting, July 27–30, 2003, Montreal, Canada. http://agecon.lib.umn.edu/aaea03/sp03ta01.pdf

ISSUES IN THE U.S.

Analyzing Inter-organizational Information-Sharing Strategies in B2B E-commerce Supply Chains by Robert Kauffman and Hamid Mohtadi. Information sharing in procurement occurs in a variety of industry contexts where managerial decisions need to be made and organizational strategy must be formulated. This paper extends the theoretical results that are available for understanding how information sharing ought to work in procurement contexts—in particular, those involving investments in inter-organizational information systems and collaborative planning, forecasting, and replenishment. Paper presented at the 2003 INFORMS Conference on Information Systems and Technology, October 2003, Atlanta, GA.

Attack Obesity Epidemic to Combat Rising Health-Care Costs by Benjamin Senauer and C. Ford Runge. Two-thirds of Americans are overweight or obese. Health costs in the workplace are climbing for us all. For businesses large and small, health care costs continue to erode the bottom line. Attention must focus on containing runaway costs. The university is uniquely positioned to address health and food, with strong schools of agriculture, business, medicine, and public health, and a location at the center of the food industry. *Pioneer Press*, v.155, no.205, Nov. 18, 2003.

The Compliance Costs of Maintaining Tax-Exempt Status by Marsha Blumenthal and Laura Kalambokdis. U.S. nonprofits maintain their tax-exemption by submitting annual federal returns (Form 990) and, often, state reports. The burdens these reports inflict (for example, the costs of record-keeping, information-gathering, fees, and so forth) are collectively termed "compliance costs." Their magnitude is a policy issue, because when compliance costs are high, fewer nonprofits are likely to survive, which deprives society of important services. On the other hand, if high costs reflect more stringent reporting requirements, accountability may improve. We survey a national, stratified random sample to estimate the dollar value of these compliance costs. We also analyzed federal and state requirements, and separated out compliance costs by organizational size, activity, and state reporting rules. Paper presented at the National Tax Association Annual Meeting, November 13–15, 2003, Chicago, IL. Staff Paper P03-10.
http://agecon.lib.umn.edu/mn/p03-10.pdf

The Curse of American Agricultural Abundance: A Sustainable Solution by Willard Cochrane. Chapter titles in this book are as follows: "The Case for Production Control"; "The Agricultural Treadmill"; "Farm Technology, Foreign Surplus Disposal, and Domestic Supply Control"; "A Food and Agricultural Policy for the Twenty-First Century"; "The Export Solution"; "Saving the Family Farm"; "The Case for Government Intervention"; and "American Agricultural Abundance: Curse or Opportunity?" Lincoln, NE: University of Nebraska Press, 2003.

Do Direct Payments Have Inter-Temporal Effects on U.S. Agriculture? by Terry Roe, Agapi Somwaru, and Xinshen Diao. The question of whether production flexibility contract payments (PFCPs) to farmers are likely to be minimally trade distorting is considered in an inter-temporal and economy-wide context. We show the circumstances, over time, under which a minimally trade-distorting result is likely to be obtained. In *Government Policy and Farmland Markets: The Maintenance of Farmer Wealth*, edited by C. B. Moss and A. Schmitz. Ames, IA: Iowa State Press, 2003.

Farmland Markets in the Development of U.S. Agriculture by Willard Cochrane. Abundant land – cheap or free, distributed with or without corruption – served as an important stimulus to the overall development of the United States. Land was the magnet that drew the first settlers to English colonies, once the bubble of instant riches had been pricked. It was the magnet that continued to draw them to these shores for almost three centuries. And it was the magnet that drew settlers into the wilderness, over the Appalachian, and across the continent in one century following the Revolutionary War. To the landless and land-hungry people of Western Europe the pull of cheap or free land in North America was overwhelming. They came in droves and they suffered untold misery to make that land their own. How that land was distributed is the subject of this essay: the role of government, the role of private markets, and the more common role of some combination of government and markets. And we will observe these different and changing roles in a historical context – first in colonial times, then in period after period as the nation developed. In *Government Policy and Farmland Markets: The Maintenance of Farmer Wealth*, edited by Charles B. Moss and Andrew Schmitz. Ames, IA: Iowa State Press, 2003.

Is There a Future for Wholesaler-Supplied Supermarkets? by Robert King. Food industry analysts are looking at the long-term viability of grocery wholesalers and the independent grocery stores they supply. Many believe they are vulnerable to competitive pressure from other food service providers, convenience stores, and supercenters. Future success for the wholesaler-supplied supermarket industry will depend on how independent retailers adapt to changing market forces, and on effective collaboration between stores and distribution centers. How well are independent retailers positioned to compete in their local markets? How well has the wholesaler-supplied system adopted new technologies and business practices? How does store-level performance of independent supermarkets compare with that of distributor-owned stores? Data from the 2002 Supermarket Panel respond to these questions. The Panel collects detailed data on store characteristics, operating practices, and standard store performance measures for a random sample of the nearly 32,000 supermarkets in the United States. The 2002 Panel includes 866 stores located in 49 states. *Choices*, 4th Quarter 2003. http://www.choicesmagazine.org/current/2003-4-04.htm

Lender Attitudes Toward Organic and Sustainable Farming by Richard Levins. Agricultural lenders have a new opportunity in funding the growing number of farmers producing organic products. A better understanding of organic farmers will help lenders take full advantage of this opportunity. *Journal of Agricultural Lending*, v.16, no.4, summer 2003.

Levins Writes that Farmers Can Work Together to Protect Organic Grain Prices by Richard Levins. The relatively high prices for organic products will not last unless farmers act together to build market power comparable to that held by buyers. OFARM, a new cooperative, is an example of how this can be done. The Report, a Publication of the National Farmers Organization, fall 2003.

A Methodology for Valuing Multiple-Exercise Option Contracts for Water by Michele Villinski. In this paper I use financial derivative pricing theory as a foundation for a computational approach to valuing multiple-exercise option contracts in a natural resources setting. Evidence from the western United States shows that option contracts for water can be even more exotic than many exotic options considered in finance. For instance, one contract negotiated between a municipal water authority and a large agricultural operation allows the municipality to exercise a call option on water up to seven times in a 15-year period. This is a highly non-standard option; there is no simple pricing formula to calculate its value. Building on the Black-Scholes option-pricing framework, I use dynamic programming techniques to construct a method for valuing such multiple-use option contracts for water. Center for International Food and Agricultural Policy, Working Paper WP03-4.
http://agecon.lib.umn.edu/mn/wp03-04.pdf

Organizing the Economics Academy: The Evolution of Professional Economics Associations, 1777–2000 by Vincent H. Smith, Philip G. Pardey, and Connie Chan-Kang. Scholarly societies in economics (and many other professions) are clubs that provide members with a range of club goods, many of which have broader and economically significant spillover consequences for society at large. Yet surprisingly little is known about the historical evolution or current composition of these associations. This analysis of the development of professional economics societies worldwide provides perspectives on the evolution of the economics industry they serve. Staff paper P03-9.
http://agecon.lib.umn.edu/mn/p03-09.pdf

Planning the Late-Career, Retirement-Mode Years by Kenneth Thomas. Chapter titles in this report are as follows: “Pre-Retirement Planning: An Overview”; “Developing and Testing a Retirement Lifestyle”; “Managing Financial Security”; “Developing/Updating Estate Plans”; and “Farm Business Continuation and Transfer Planning.” Ames, IA: Midwest Plan Service, North Central Farm Management Extension Committee, 2003.

Safe Food Consumption—Redefining Food Safety by Jean Kinsey. Safe food consumption includes traditional food-safety concerns about microbial and pesticide contamination as well as consuming the right amount and types of food. Thus, in today’s world, safe food consumption involves not overeating, not becoming obese, and not getting ill. Diseases related to obesity cost Americans at least six times as much per year as diseases related to microbial contamination. It is time we recognize the connection between the way we eat, our long-term health, and the cost of health care.
Cereal Foods World, v.48, no.6, Nov–Dec 2003.

REGIONAL TOPICS

2003 Minnesota Livestock Industry Benchmark Report; an Economic Baseline of Minnesota's Animal Agriculture: Transitioning a World-Class Industry by Brian Buhr. The Minnesota Agri-Growth Council, the University of Minnesota, and the Minnesota Department of Agriculture have joined to provide the first-ever overview and measurement of the state of animal agriculture in Minnesota. The report provides a comprehensive analysis and measure of the state's animal agriculture sector and the realities it faces so that Minnesotans can evaluate its strengths, weaknesses, opportunities, and threats and—ultimately—develop approaches to ensure the long-term vitality of this critically important sector in the state's economy. Minnesota Agri-Growth Council, 2003.
http://www.agrigrowth.org/livestock.html

Factors Determining Population Growth for Rural Counties in Minnesota from 1990 to 2000. Abstract by Kikuo Oishi and Paul Glewwe. This paper examines factors that determine population growth in rural Minnesota counties from 1990 to 2000. Factors that encouraged growth include proximity to the Minneapolis-St, Paul metropolitan area, vacation amenities (as measured by number and size of lakes), and proximity to interstate highways. In Future of Rural Peoples: Rural Economy, Healthy People, Environment, Rural Communities; Fifth international symposium, October 19–23, 2003, Saskatoon, Saskatchewan, Canada. Institute of Agricultural Rural and Environmental Health, 2003.

Minnesota Farm Machinery Economic Cost Estimates for 2004 by William Lazarus and Roger Shelley. The tables in this publication contain estimates of farm machinery operating costs for late 2003 and 2004. The estimates use an economic engineering approach. The data are intended to show representative farming industry costs for specified machines and operations. University of Minnesota Extension Service, 2003.
http://www.apec.umn.edu/faculty/wlazarus/mf2003.pdf

Source Code for Minnesota Land Economics Web Site by Steven Taff and Chris Mikesell. This document is a compilation of the source code for the Minnesota Land Economics Web site (http://www.apec.umn.edu/landeconomics), as of September 1, 2003. This site consists of introductory static html pages, which lead the user into a series of choices about data location and aggregation and then generates the results of these choices. All this is accomplished through a series of dynamic ASP scripts. Each section of this document corresponds to the data categories on the site: farmland sale prices, timberland sales prices, estimated land values, land productivity ratings, soil rental rates, RIM easement prices, and local property-tax rates. Department of Applied Economics, 2003.

Transferring the Farm, Series 1–15 by Robert Anderson, Gary Hachfield, and Erlin Weness. Individual fact sheet titles in this series are as follows: 1) "Questions to Ask Before You Start Transferring the Farm Business"; 2) "When to Transfer the Farm"; 3) "Major Tax Considerations When Transferring Assets"; 4) "Selling the Crops and Market Livestock"; 5) "Transferring Breeding Stock and Machinery"; 6) "Should You Sell Your Real Estate?"; 7) "Gifting Farm Assets"; 8) "Protecting the On-Farm Heirs"; 9) "How to Be Fair With Off-Farm Heirs"; 10) "Developing a Written Transfer Plan"; 11) "Farming Together"; 12) "The Revocable Living Trust"; 13) "Financial Help for Beginning Minnesota Farmers"; 14) "Using a Farm Partnership to Transfer Assets"; and 15) "The Farm Corporation – Is It for You?" University of Minnesota Extension Service, 2003.
http://www.extension.umn.edu/distribution/businessmanagement/DF6317.html

2003 Donor List

We would like to use this page to say, "THANK YOU" to the following groups and individuals who generously donated funds to the Department of Applied Economics during 2003. We greatly appreciate your support!

DONOR	***FUND / PURPOSE***
$10,000 to $75,000	
AgStar Financial Services	AgStar Scholars Fund
Dr. Richard C. Hoyt	Willis Peterson Scholarship for Undergraduate Study
Mary A. and Robert B. Litterman	Endowed Fellowship Fund
$3,000 to $9,999	
Dr. Sam C. Hsieh	Applied Economics Fund
Dorothy L. Peterson	Willis Peterson Scholarship for Undergraduate Study
$1,000 to $2,999	
Dr. Vernon R. and Bonnie J. Eidman	Ag & Applied Economics Endowment
James H. and Mary B. Hammill	Applied Economics Graduate Student Support
Janice and Arvid Knudtson	Applied Economics Graduate Student Support
Michael V. and Janis R. Martin	Applied Economics Fund
Harland R. Routhe	Harland Routhe Scholarship in Applied Economics
Wesley B. Sundquist	Applied Economics Graduate Student Support
Dr. Surjit S. Sidhu and Sachiko Yamashita	Applied Economics Fund - in honor of Prof. Lee Martin
$500 to $999	
Dennis and Vicki Johnson	Willis Peterson Scholarship for Undergraduate Study
Land O'Lakes Foundation	Applied Economics Fund
Dr. Jin H. Park	Applied Economics Fund
Rockefeller Foundation	Applied Economics Fund
Doug Tiffany and Judy Ohannesian	Applied Economics Fund
Up to $499	
Dr. Richard W. Brown	Applied Economics Fund
Dr. Rachel Dardis	Applied Economics Fund
David R. Engelbrecht	Ag & Applied Economics Endowment
Martin L. Fisher	Applied Economics Fund
Dr. Robert W. Herdt	Applied Economics Fund
Dr. Harry M. Kaiser	Applied Economics Fund
Dr. Glenn J. Knowles	Applied Economics Fund
Douglas E. Pagel	Ag & Applied Economics Endowment
Dr. H. Cris and Linda M. Remucal	Koller Chair in Ag Mgmt Information Systems
Regents Prof. Vernon W. Ruttan	Honorarium to Waite Library
Edward C. Usset	Ag & Applied Economics Endowment
Donald L. Winkelmann	Applied Economics Fund

University of Minnesota

The College of
Agricultural, Food and
Environmental Sciences

Knowledge for a changing world

Department of Applied Economics
1994 Buford Avenue
231 Classroom Office Building
St. Paul, MN 55108-6040

Return Service Requested

Nonprofit Org.
U.S. Postage
PAID
Mpls., MN
Permit No. 155

Minnesota Applied Economist

Editing Committee
Vernon Eidman, Professor and Head of Dept.
Melissa Sullivan, Program Associate

Prepared by the Department of Applied Economics, with the assistance of Business and Science Writers Incorporated. The views expressed are those of the authors, not necessarily those of the sponsoring institutions.

Send comments, suggestions or address changes to Melissa Sullivan, Department of Applied Economics, University of Minnesota, 1994 Buford Ave., St. Paul, MN 55108-6040. (612) 625-1222, msulliva@apec.umn.edu

ISSN: 0885-4874

Contains a minimum of 10 percent postconsumer material.

Register Now for the Economic Development Conference

The first Minnesota International Economic Development Conference will be held from April 30 to May 1, 2004. This conference is sponsored and organized by the Center for International Food and Agricultural Policy, which is located in the Department of Applied Economics at the University of Minnesota.

The conference will feature guest lectures by two of the most respected and well-known young economists doing research today on international economic development, Timothy Besley of the London School of Economics and William Easterly of New York University (formerly at the World Bank). In addition, 30 papers will be presented at parallel sessions by economists from several international development agencies and universities in the U.S. and overseas.

The conference will take place at the Hubert Humphrey Institute of Public Affairs, which is on the west bank of the Minneapolis campus of the University of Minnesota. To attend the conference, send the registration form (and a fee of $40, which includes several meals) to the Department of Applied Economics by April 8, 2004. For further details and a list of the papers being presented, visit the conference website at *http://www.apec.umn.edu/faculty/pglewwe/Minnconf/*.