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Minnesota Applied Economist

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

Department Head's Notes

The number of faculty in the department has remained in the 32-34 range over the past decade. While the number has been relatively constant, the composition of the faculty has gradually changed over time. From mid-1992 to the end of 2001, 17 members either retired, took other positions, or passed away and were replaced by an approximately equal number of new faculty.

Retirements

In January 2002, we wished two of our colleagues the best as they retired and moved on to new activities. Bud Crewdson, extension economist in community development, retired in early January and, later in the month, Stan Stevens, extension economist in grain marketing, exchanged regular pay checks for a retirement check. In the coming months, we will miss the opportunity to interact on a day-to-day basis with both Bud and Stan, and will miss their contributions to our extension, resident teaching, and research programs. For a brief description of their many contributions to the department, please see pages 1 and 2 of the newsletter.

New Appointees

At the start of 2002, we welcome two new members to the faculty. The first is Bill Gartner, who became a full-time member of the department after serving as the director of the Tourism Center since 1992. Although Bill will no longer direct the Center's activities, he will continue his research and extension programs with the tourism industry. The second is Philip Pardey, an internationally recognized expert in the economics of science and technology. We are delighted to have Bill and Phil as members of the faculty in the Department of Applied Economics.

For many decades, the department has been noted for having a very strong, productive faculty and this is still true today. Our 34 departmental faculty are composed of 16 professors, 14 associate professors, and 4 assistant professors. Approximately 20 work on the economics of the food system, 6 emphasize resource and environmental economics, and 7 focus on community development and regional economics, but many, of course, have research interests that range across subject-matter lines. For more info, visit the department's Webpage <http://www.apec.umn.edu>.

Click on "People," then "Faculty" to learn more about their interests and areas of specialization.

Vernon Eidman

Department Recognizes Two Faculty For Their Service



Bud Crewdson

Bud retired January 3, 2002 after a 33-year career with the University of Minnesota Extension Service and the Department of Applied Economics. Over the past decade, Bud served as director of the University's Business and Industry Data Center, an affiliate of the U.S. Census Bureau and the Minnesota State Demography Office. While at the center, Bud produced a number of data profiles including a "County Profile" based on the 1990 U.S. Census, two "Agricultural Profiles" based on the 1992 and 1997 U.S. Census of Agriculture, a "Business, Industry, and Labor Profile," and two "Demographic, Social, and Vital Statistical Profiles" for every county in the state. Bud used these profiles in his community development program as data for community economic research and analysis. The profiles have become the standard source of such data for extension educators and many other community leaders throughout the state.

(Crewdson continued on page 2.)

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(Bud Crewdson continued from Page 1.)

After spending three years in the department as a graduate assistant supporting our marketing and farm management specialists, Bud began his extension career with North Dakota State University as a livestock and meat-marketing specialist. He was lured back to Minnesota in 1964 to serve as director of agricultural development for the Upper Midwest Research and Development Council. His responsibilities to disseminate materials on agricultural and natural resource programs led to the start of his career with the University of Minnesota Extension Service, where he served in a series of leadership positions in community development and conducted countless educational programs for community industrial developers. Many of his educational programs focused on business education—including office automation, selecting a computer system, financial management, word processing, personnel management, and communications. These programs were delivered to extension personnel as well as business leaders from all economic sectors of rural Minnesota.

Bud has many outside interests. In addition to being an avid fan of major collegiate and professional sports in the area, he is a member of a volunteer organization committed to safe boating education for the general public. He also is involved in cooperative charting, a volunteer activity that produces accurate nautical and aeronautical charts and checks the condition of geodetic control stations in the National Geodetic Reference System. (If you don't understand this, you should ask him to tell you about it.) We will miss seeing Bud on a daily basis, and we wish him and his wife, Norma, the best as they continue to serve the community, state, and country in many ways.



Stanley Stevens

Stan Stevens joined the Department of Applied Economics as an assistant professor and extension marketing economist in 1985. Over the years, Stan became known for his thorough analysis of grain markets, and many producers sought his advice on grain pricing and marketing decisions.

Over his career he offered many meetings, workshops, and short courses on the situation and outlook for the major grains, understanding futures and options, implications of government program provisions, and marketing strategies. He was particularly known for his knowledge of world-wide weather conditions and his analysis of their likely impact on grain markets. He gave countless interviews on market

conditions and outlook to major newspapers, farm and agribusiness magazines, and the electronic media.

Stan joined the department after obtaining several years of experience managing his family and personal farms in Iowa and providing futures investment advice. He used these experiences to relate to farmers and their marketing issues and explain marketing decisions to students on campus. In addition to his extension education programs, he taught resident instruction courses in "Futures Markets and Prices" and "Grain Marketing." His research program focused on topics complementing his educational efforts.

In retirement, Stan continues to have many interests in the private and public sectors. Best wishes to Stan and his wife, Jan, as they free up some time to pursue additional interests. We look forward, in the years ahead, to Stan's frequent visits and active participation as an emeritus member of the faculty.

Upcoming Seminars in the Department

Unless otherwise noted, all seminars will be held in the Classroom Office Building on the St. Paul Campus. For further information on these and future seminars, see the departmental website:

<http://www.apec.umn.edu/current.html>

March 1 - Laura Kalambokidis, Assistant Professor, "Do We Now Collect Any Revenue from Taxing Capital Income?", 2:00 p.m. in Room 119.

March 4 - Sarah West, Macalester College, "Empirical Estimates for Environmental Policy Making in a Second Best Setting," 12:00 p.m. in Room 230.

March 8 - Gerald Doeksen, Regents Professor, Oklahoma State University, "The Relationship of Health Care to Economic Development," 2:00 p.m. in Room 119.

March 11 - Cathy Kling, Iowa State University, "Willingness-to-Pay, Compensating Variation, and the Cost of Commitment," at 12:00 p.m. in Room 230.

March 25 - Bill Provencher, University of Wisconsin, "Are Static Models of Recreation Behavior Good Enough for Management and Policy Objectives?," at 12:00 p.m. in Room 230.

March 29 - Tursynbek Nurmagambetov, Ph.D. student, "The Role of Capital Market Imperfections in the Process of Economic Growth," 2:00 p.m. in Room 119.

April 1 - Nori Tarui, Ph.D. student, "Permit Markets for Stock Pollutants with or without Banking and Borrowing," 12:00 p.m. in Room 230.

DEPARTMENT WELCOMES TWO NEW FACULTY MEMBERS



William Gartner

William Gartner is a professor of applied economics at the University of Minnesota and former director of the Tourism Center, University of Minnesota. He previously served as director of the Institute of Outdoor Recreation and Tourism at Utah State University and as graduate program director

of the M.S. in Hospitality and Tourism at the University of Wisconsin-Stout. He has a Ph.D. in resource development with an emphasis in resource economics from Michigan State University.

Bill has conducted numerous research studies in the area of tourism image development, seasonal home impacts, tourism marketing, and methods for tourism research. He is active regionally, nationally, and internationally having served as secretary, vice-president, president, and chairman of the board of the CenStates chapter of the Travel and Tourism Research Association. In addition, he has served on the editorial board of many tourism journals and as secretary (1993–1997), vice-president (1998–1999), and president (2002–2003) of the International Academy for the Study of Tourism. He is currently the CEO of the National Rural Tourism Foundation. He has also been involved in international development work including projects in West Africa (especially Ghana) and the Middle East. He is the author of numerous tourism articles published in professional journals and two books, *Tourism Development: Principles, Processes and Policies* published by John Wiley and Sons, and *Trends in Recreation, Leisure and Tourism* published by CABI.



Philip Pardey

Philip Pardey, a native of Australia, recently joined the department as professor of science and technology policy. Prior to that, Philip was a senior research fellow at the International Food Policy Research Institute (IFPRI), Washington, DC, (one of the 16 international research centers that form

the Consultative Group on Agricultural Research, CGIAR) where he led the institute's Science and Technology Policy Program. He is a graduate of the University of Adelaide, Australia, and obtained his doctoral degree in agricultural economics from the University of Minnesota in 1986. Before joining IFPRI in 1995, he was a senior research officer at the International Service for National Agricultural Research in The Hague, the Netherlands.

He has published widely on the economic policy aspects of agricultural R&D. His research interests include measuring and assessing global investments in agricultural research and the changing institutional structure for funding and conducting R&D, developing and applying new methods to evaluate the economic effects of research, and the economics of genetic resources and agricultural biotechnologies.

Philip has considerable international experience leading regional projects in Asia, sub-Saharan Africa, Latin America, and the Caribbean and leading country projects in Argentina, Australia, Brazil, China, Indonesia, Kenya, Niger, and the United States.

USING PORTALS TO IMPROVE DECISION MAKING

Since the first hand-held programmable calculators were invented by Texas Instruments nearly 25 years ago, agricultural economists have been creating decision models for agricultural producers. In the early 1980s, these decision models were transferred to desktop computers and, as computers became more powerful, decision models became more sophisticated. The Department of Applied Economics created a new program to develop an Internet portal for delivery of decision tools.

Currently, the portal is geared towards improving marketing decisions. The pilot application uses real-time futures prices and basis information to show expected forward prices for all major livestock and crops. In addition, several contract prices are included which help farmers evaluate futures based risk management versus forward price risk management. Using

our decision models, producers can 1) generate customized reports; 2) add new data to the model and so make new decisions/predictions using the very latest data; and 3) maximize their returns when the crop is harvested or the hogs are sold.

However, unlike previous decision tools, it is critical to recognize that this framework applies to any situation. So, while currently applied to the farmer's situation, it can be broadly applied to decisions all citizens face.

We encourage you to take our site for a test spin at <http://futures.umn.edu>. We welcome comments and suggestions, so feel free to send an email to Associate Professor Brian Buhr at bbuhr@appec.umn.edu.

PROFESSOR LEVINS CHALLENGES CLASS TO DEFINE FAMILY FARM

The following is an excerpt from an article, written by Jack Sperbeck, and published on January 11, 2002 by the Minnesota Extension Service.

You can ask agriculture's movers and shakers to define a family farm, but you'll get no agreement. That's what happened to the editors of *Progressive Farmer* magazine, (December 2001 issue) after they talked to several congressmen, farm organization and commodity group leaders, ag business executives, and environmental leaders.

Everyone has a definition [of a family farm], but their answers [are confusing]. [Everyone] claims to be interested in saving the family farm, but nearly all ... have a different image of what they want to save. This may be why it is so difficult to write a farm bill that treats everyone in agriculture equally and fairly.

Defining a family farm is not an easy task. This, however, was one of the goals of a class taught last fall by Professor Richard Levins in the Department of Applied Economics—with help from Professor Emeritus Willard Cochrane and former Congressman David Minge, who presented guest lectures to the students. After some lively class discussions, the students came up with the following definitions of a family farm.

1. To be a family farmer (and be eligible for farm payments), he or she must make all major management decisions for the farm—unlike non-family farms, where major decisions are made by corporate or off-farm managers.
2. To be considered a family farmer, the farmer's principal occupation must be farming.
3. Farm payments should be based on financial need, not production levels. "This is more controversial but is more in line with public perceptions," says Levins.

In the final paper for his class, Levins asked his students to define the term "family farm." A wide range of definitions were offered by the 23 students, who were split almost equally between farm and city backgrounds.

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REMEMBERING OUR PAST: CHANGES IN THE DEPARTMENT'S PROPORTION OF EXTENSION ECONOMISTS

The size of the departmental faculty and the role of formal extension faculty appointments have changed dramatically over the decades. The University of Minnesota Extension Service is currently restructuring in response to changing educational needs, methods of delivery, and declining real budgets. The inevitable result of this restructuring for the department (and almost all other units) is fewer faculty and support dollars to do extension programming. How has the size of the faculty and the proportion of funding to conduct extension programming changed over time?

To make this comparison, it is important to recognize that the economists employed by the agricultural extension service were not integrated into the department until 1966, making it important to sum departmental faculty and extension economists to make comparisons with faculty numbers in more recent years. Cochrane¹ notes that the departmental faculty remained in the 11 to 13 range from 1930 to 1957. During this period, the number of extension economists increased from 2 in 1930 to 9 in 1957.

The size of the teaching and research faculty expanded rapidly during the late 50s and 60s. The extension economists were integrated into the department in 1966 and responsibilities for extension programming were spread over a larger number of faculty with partial extension appointments. The total number of faculty climbed to 43 in 1970, of which 23 had, at least, some extension responsibilities. The number of faculty and the extension commitment remained at about that level throughout the 70s and began to drop in the 80s. By 1990, total faculty numbers had dropped to 37, with 19 members having partial to full extension appointments. Today 16 of our 34 faculty hold some percentage of their appointments in extension.

It is important that the department's offerings in extension and outreach are adjusted to meet current needs. We are adjusting faculty responsibilities and methods of delivery to provide relevant information on a wider range of economic issues. Please note the article on portals (p.3), a new delivery technology, as one example of changes being made to deliver more useable content with fewer faculty resources. Future issues of this newsletter will describe other examples of innovative extension/outreach programs. I welcome your suggestions on better ways to provide appropriate outreach on important economic issues at veidman@apec.umn.edu.
Vernon Eidman

¹Willard W. Cochrane. *Agricultural Economics at the University of Minnesota 1886–1979*, p. 36–45, 76.

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

Accessing Other People's Technology: Do Non-Profit Agencies Need It? How to Obtain It. By Carol Nottenburg, Philip Pardey, and Brian Wright. As patents and other forms of intellectual property become more pervasive in the next generation of biotechnologies, designing policies and practices to ensure sufficient freedom to operate (i.e., the ability to practice or use an innovation) will be crucial for non-profit agencies in the developed and developing world, especially those intent on developing improved seed varieties and other technologies destined for commercial release. Are non-profits exempt from intellectual property claims? What constitutes infringement of a patent? How does a non-profit establish its freedom to operate? This paper addresses these issues and evaluates various options for accessing other people's technologies. Environment and Production Technology Division Discussion Paper 79. Washington, DC: International Food Policy Research Institute, September 2001.

Attribution and Other Problems in Assessing Returns to Agricultural R&D. By Julian M. Alston and Philip G. Pardey. Estimated rates of return for research are distorted by problems of attributing the credit for particular research results—or for attributing the credit for particular research-induced productivity increases—among research expenditures undertaken at different times, in different places, and by different agencies. A comprehensive assessment of the evidence from past economic evaluations of the returns to agricultural R&D indicates that studies generally report high rates of return (with enormous variation among studies), but that much of this evidence is tainted by inadequate attention to attribution problems. This paper raises these concerns in a general way and illustrates their importance with reference to two particular types of attribution problems. In *Agricultural Economics*, v. 25, no. 2–3, September 2001, p. 141–152.

Early Childhood Nutrition and Academic Achievement: A Longitudinal Analysis. By Paul Glewwe, Hanan Jacoby, and Elizabeth King. This paper investigates the relationship between child nutrition and learning using a unique data set that follows a large sample of Filipino children from birth until age 12. It finds that better-nourished children perform significantly better in school, partly because they enter school earlier and thus have more time to learn, but mostly because of greater learning productivity per year of schooling. A cost-benefit analysis suggests that a dollar invested in an early childhood nutrition program in a developing country could potentially return at least

three-dollars worth of gains in academic achievement and, perhaps, much more. In *Journal of Public Economics*, v. 81, no. 3, September 2001, p. 345–368.

The Future of Food: Biotechnology Markets and Policies in an International Setting. Edited by Philip G. Pardey. What should be biotechnology's role in assuring affordable and sustainably grown food for all? How we answer this question now will have profound ramifications for decades to come. The chapters in this book confront the controversy over biotechnology with new analyses and insights from economists and technologists. The topics covered include the differences in perceptions about biotechnology among rich and poor countries, the effects of rich-country restrictions on international trade in genetically modified crops on the welfare of poorer countries, the effects of intellectual property rights on the bioscience done by public agencies, and the economic impacts of biotechnology. Washington, DC: International Food Policy Research Institute, October 2001. (Distributed by Johns Hopkins University Press.)

How Do Foreign Patent Rights Affect U.S. Exports, Affiliate Sales, and Licenses? By Pamela Smith. This paper analyzes how foreign patent rights (FPRs) affect U.S. exports, affiliate sales, and licenses. My approach is distinctive in three ways. First, I apply ownership, location, and internalization concepts to link FPRs with servicing decisions. Second, I account for the simultaneity of servicing decisions. And third, I estimate the relative effects of FPRs on exports, affiliate sales, and licenses. Empirical findings show strong FPRs increase U.S. affiliate sales *and* licenses, particularly across countries with strong imitative abilities. Further, FPRs have a larger effect on U.S. knowledge transferred outside the country and firm, in comparison to knowledge located inside the country and internalized inside the firm. In *Journal of International Economics*, v. 55, no. 2, December 2001, p. 411–439.

International Economics of Intellectual Property Rights and the Biotechnology Industry. By Keith Maskus and Pamela Smith. This paper considers the current state of research, policy, and data on the international economics of intellectual property rights for biotechnologies. We consider three questions: (1) What have we learned from *research* on intellectual property rights for biotechnology industries? (2) What is the status of international *policies* on intellectual property rights for biotechnologies? (3) What can we learn from *data* on trade and patents in biotechnology industries? The results of this paper are recommendations for future research, policy, and data development. Paper prepared for the International Agricultural Trade Research Consortium, December 14–16, 2001, Tucson, AZ.

International Trade and Growth: An Overview Using the New Growth Theory. By Terry Roe and Hamid Mohtadi. This paper discusses in a non-technical way the new growth theory's explanation of why some countries are rich and others

are poor, what are the key determinants of long-run growth, and how market forces alone may not lead to high rates of economic growth. We emphasize the role of a country's institutions (such as those enforcing intellectual property rights), the ease of transferring savings from savers to investors, the production of knowledge available to all, and a country's openness to world markets. In *Review of Agricultural Economics*, v. 23, no. 2, Fall/Winter 2001, p. 423–440.

Slow Magic: Agricultural R&D a Century After Mendel. By **Philip G. Pardey** and **N. M. Beintema**. Standing on the brink of a biotechnology revolution in agriculture, it is timely to take stock of the investments and institutional trends regarding agricultural R&D worldwide. In this report, we assemble and assess new and updated evidence regarding investments in agricultural R&D by public and private agencies and compare developments in rich and poor countries. This report tracks trends in agricultural R&D over the past several decades. It also puts research policies in a much longer timeframe, highlighting the critical importance that the accumulated stock of scientific knowledge has on today's productivity performance and its effect on innovation and economic growth in the future. An earlier version was prepared as a background paper to the Human Development Report 2001, *Channeling Technology For Human Development*. IFPRI Food Policy Report. Washington, DC: International Food Policy Research Institute, October 2001.

ISSUES IN THE U.S.

Are There Communities of Welfare Recipients? Looking for Rural-Urban Differences in the Duration of AFDC. By **Donald Hirasuna** and **Thomas Stinson**. Shortening the length of individual welfare episodes is an acknowledged goal of state income-assistance policy, yet there has been little research examining rural-urban differences in episode duration. This study uses a large, state-wide administrative data set to test for such differences in Minnesota. Statistically significant differences were identified in expected duration between households residing in urban counties, rural agriculturally dependent counties, and other rural counties. Households in urban counties have the lowest probability of exit and those in rural agriculturally dependent counties the highest. The differences occur after adjusting for differences in racial composition, parent's age, and number of children. Staff paper.

[<http://agecon.lib.umn.edu/mn/p01-12.pdf>]

Citizen Suits. By **Chad Settle**, **Terrance Hurley**, and **Jason Shogren**. Citizen suits allow individuals to seek federal legal recourse when they have been adversely affected by the violation of an environmental regulation. This chapter explores the conditions and institutional rules under which these suits will promote environmental quality, with fewer resources expended, by those contesting the outcome of the suit. In *The Law and Economics of the Environment*, edited by Anthony Heyes. Northampton, MA: Edward Elgar, 2001, p. 217–248.

Do Farmers Need Efficiency—or Economic Power? By **Ri-chard Levins**. While economic efficiency has been the usual prescription for financial success in dairy farming, this may no longer be the case. The milk processing industry, and even more the food retailing sector, are so concentrated that market power becomes a factor. Farmers should take a new look at collective bargaining to improve their market power in the new food system. In *Hoard's Dairyman*, November 2001, p. 711.

Do We Now Collect Any Revenue from Taxing Capital Income? By **Roger Gordon**, **Laura Kalambokidis**, and **Joel Slemrod**. The U.S. income tax system has long been recognized as a hybrid of an income and consumption tax, with elements that do not fit naturally into either pure system. What it actually *is* has important policy implications for, among other things, understanding the impact of moving closer to a pure consumption tax regime. In this paper, we examine the nature of the U.S. income tax system by calculating the revenue and distributional implications of switching from the current system to one form of consumption tax, a modified cash flow tax. Prepared for the International Seminar in Public Economics Conference, University of California, Berkeley, December 7–8, 2001, 28 pp.

Environmental “Tinkering” in Farm Bill Won't Solve Pollution Problems. By **K. William Easter**. Soil erosion and nutrient pollution of our water resources are a growing concern in the Midwest. Gyles Randall, a soil scientist at the University of Minnesota, says that in 30 years he's never seen as much soil erosion in southern Minnesota as he has in the last few years. Some think the farm bill can solve the problem. However, it is clear that more than environmental tinkering with the farm bill is needed to significantly reduce water pollution. In *Sustainable Agriculture*, v. 9, no. 9, September 2001, p. 1.

Farm Household Income Safety Net Programs Hard to Implement: Economists Analyze Approaches to Take for Implementation. By **William Lazarus**. Compared to current commodity programs, a “farm household income safety net” approach might do a better job of assuring a minimum standard of living for families on small farms. This approach, however, would be a dramatic departure from current policy and would face opposition on ideological grounds, as well as be difficult to implement. Still, it might be worth a try if policymakers really want to preserve small farms. In *Agweek*, v. 17, no. 4, September 3, 2001, p. 40.

For Small Farms: Household Income Safety Net Might Be Better Than Commodity Programs. By **William Lazarus**. Traditional price-support programs do not help small family farms very much. USDA-ERS economists have studied an alternative approach using payments based on farm household net income to ensure a minimum standard of living instead of basing payments on commodity prices. This “household income safety net” approach deserves a look by those in the Minnesota farm community who are looking for alternatives to traditional farm programs. In *Agweek*, v. 17, no. 4, September 3, 2001.

Major Issues in the 2002 Farm Bill: Risk Management. By **Vernon Eidman**. Two risk-management tools—crop yield and revenue insurance, and producer savings accounts—have been considered for inclusion in the 2002 farm bill. Crop and revenue insurance products have become important risk-management tools over the past decade and should be continued. The distortion in production decisions caused by the current method of subsidizing insurance premiums could be reduced by providing premium subsidies through fixed payment vouchers. My paper argues that producer savings accounts are unlikely to increase the net savings of most farmers, making these accounts of limited use as a risk-management tool on the large majority of farms. In addition, these accounts are likely to be primarily of interest to farm operators who pay high marginal tax rates. In *The 2002 Farm Bill: Issues and Alternatives; Conference Highlights*, edited by Won W. Koo. Fargo, ND: North Dakota State University, Department of Agribusiness and Applied Economics, Center for Agricultural Policy and Trade Studies, 2001.

Managing European Corn Borer Resistance to Bt Corn with Dynamic Refuges. By **Silva Secchi**, **Terrance Hurley**, and **Richard Hellmich**. Genetic engineering has produced corn that is resistant to pests and safer to use than conventional pesticides. There is concern, however, that insect resistance will prematurely render the corn ineffective. The purpose of this paper is to evaluate how much adaptive strategy can improve on the strategies currently being used to manage insect resistance. Iowa State University, Center for Agricultural and Rural Development, working paper.

[<http://www.card.iastate.edu/publications/texts/01wp287.pdf>]

New National Farm Policy Goal Should Be More U.S. Farmers, Not Fewer. By **Richard Levins**. For decades, farm policy has often assumed that poor income results from having too many farmers. Thus, having fewer farmers becomes part of the solution. But, for environmental and social reasons, we may need more—not fewer—farmers to meet important public goals. In *Minnesota Agriculture*, v. 45, no. 12, December 18, 2001.

Payback Day Coming for Social Security. By **Willard Cochrane**. It is not social security that is in trouble, as the U.S. president's stacked commission on the future of social security would have us believe; it is the federal government that is in trouble. The Social Security Administration has invested its surpluses—an estimated \$6.5 trillion plus interest—in government bonds. Beginning in 2016, the Social Security Administration will begin to redeem those bonds, as needed, to pay benefits to retirees. Using these funds, the system is projected to be solvent through 2038. Thus, if there is a worry, it is whether the federal government will redeem the bonds, as with any other government debt, and maintain the solvency of the social security system. In *Star Tribune*, September 8, 2001, p. A17.

Public Works Programs Needed to Pull Us Out of Global Slump. By **Willard Cochrane**. The economic slump in the

U.S. is part of a global slump. The current U.S. and world-wide recession is not cyclical; it is a world-wide under-consumption problem. American consumers have done more than their share in buying the output of the wonderfully productive global economy, but that appears to be slowing down. Capital spending in the U.S. has slowed in the past year and expenditures on public goods (such as education, roads, and rapid transit) have slowed during the past decade. To pull out of this global economic slump (which was induced by restricted purchasing power), the governments of the world's economic heavy hitters—Japan, Germany, and the United States—must embark upon large, public goods-producing programs. These programs, financed either through progressive income taxes or budget deficits, will widen the flow of purchasing power. This effort needs to be complemented with efforts to reduce the income inequalities among the major and emerging economies, and with restructuring the U.S. farm program along less intensive and more sustainable lines. In *Agri News*, v. 26, no. 41, October 11, 2001, p. A7.

The Role of the Public Sector in Technology Development: Generalizations from General Purpose Technologies. By **Vernon Ruttan**. In the new science and technology policy literature that emerged in the early 1980s, it was held that, while public support for science is appropriate, public support for technology development represents an unproductive use of public resources. The perspective that emerges in my recent book, *Technology, Growth, and Development* (Oxford 2001) is quite different. Government has played an important role in technology development and transfer in almost every U.S. industry that has become competitive on a global scale.

Staff paper. [<http://agecon.lib.umn.edu/mn/p01-11.pdf>]

A Segmentation Analysis of U.S. Grocery Store Shoppers. By **Sandeep Mangaraj** and **Ben Senauer**. The three key supermarket shopper segments identified are time-pressed convenience seekers, sophisticates, and middle Americans. Time-pressed convenience seekers put a premium on features such as childcare, gas pumps, and online shopping. Quality and services are important to the sophisticates. Middle Americans are attracted by pricing/value factors and want stores that are active in the community. Retail Food Industry Working Paper.

[<http://agecon.lib.umn.edu/mn/tr01-08.pdf>]

A Strategic Management Primer for Farmers. By **Kent Olson**. This paper explains the process of strategic management, which includes 1) developing a vision of your farm in the future, 2) describing your farm's current mission, 3) setting strategic and financial objectives, 4) understanding your chosen industry and your farm's place within that industry, 5) building and maintaining strategic advantage, 6) crafting and testing alternative strategies, 7) implementing the chosen strategy, 8) evaluating performance, and 9) making corrective adjustments. Staff paper. [<http://agecon.lib.umn.edu/mn/p01-15.pdf>]

Suggested Procedures for Estimating Farm Machinery Costs for Extension Audiences. By William Lazarus. The sharing of extension materials among states is increasing, driven by the availability of new information technologies and budget pressures. In the case of machinery cost publications, however, methodological differences have often complicated sharing. This paper is a follow-up to a report by the American Agricultural Economics Association Costs and Returns Task Force and focuses on extension audiences. It includes an empirical analysis of four alternative calculation methods and recommends a method for developing extension materials in the north-central U.S. Staff paper. [<http://agecon.lib.umn.edu/mn/p01-13.pdf>]

The 2001 Supermarket Panel Annual Report. By Robert King, Elaine Jacobson, and Jonathan Seltzer. The Supermarket Panel collects data annually from individual supermarkets about store characteristics, operations, and performance. Established in 1998 by the Food Industry Center, the Supermarket Panel is the basis for ongoing studies of the supermarket industry. The 2001 Panel surveyed 563 stores and is a representative cross section of the industry because it includes stores from all formats and ownership groups—ranging from single stores to the country's largest chains. Our paper includes a descriptive profile for stores grouped by ownership-size and format, and more detailed information about store-level practices related to supply chain management, human resources, food handling, environmental management, quality assurance, and service offerings. The paper also contains special analyses of top-performing stores, the impacts of supercenter competition, and a statistical analysis of store-level performance drivers. Food Industry Center paper, 2001.

Uncertain Times Underline Importance of Economic Research. By Jean Kinsey. At the annual meeting of the American Agricultural Economics Association in Long Beach, held July 27–31, there was an emphasis on good communication. At the meeting, there was a special call for more posters because they require not only creativity but good communication skills. Posters require authors to ask themselves how their work may be used by others and are an excellent way to relay information to a wide audience. The theme for upcoming summer meetings is “Moving with the Speed of Change,” which is both our challenge and mandate. In *The Exchange*, v. 23, no. 6, November/December 2001, p. 1.

REGIONAL TOPICS

Minnesota Farm Machinery Economic Cost Estimates for 2001. By William Lazarus. This recently updated publication contains estimates of farm machinery operating costs calculated using the economic-engineering approach. It gets wide use by producers and their advisers who use it to make decisions, such as purchasing or sharing ownership of machinery, and arrive at custom rates that are fair to all. University of Minnesota Extension Service paper.

[<http://www.apec.umn.edu/faculty/wlazarus/MF2001.pdf>]

Profile of Social, Demographic, and Vital Statistics 2001. By Bud Crewdson and Kim Holschuh. The profile data in this report includes Minnesota 2001 statistics on the population of counties, cities, and townships, births and deaths, marriages and dissolutions, school attendance and pupil data, aid to families with dependent children, food stamps, and youth chemical dependency. University of Minnesota Extension Service paper, 1 volume, various pagings.

Rice and Steele Counties Agriculture Business Retention and Enhancement Program: Summary Report. By Daniel Haar, Richard Levins, and Michael Darger. A BR&E survey of 68 Rice and Steele county farmers indicated that farmers were trying to hold on to traditional farming practices in a rapidly urbanizing area. Farmers were concerned that residents did not care about farm survival and were even largely distrustful of agribusiness interests. Local teams are organizing to advance follow-up priority projects including farmland preservation, healthcare affordability, regional farmers market, and business partnerships/co-ops. University of Minnesota Extension Service, Department of Applied Economics and Business Retention and Expansion Strategies Program paper, 2001, 10 pp.

Technology Transfer from the University of Minnesota: Estimating the Economic Impact. By Vernon Ruttan. There is strong synergy among research, education, technology development, and technology transfer. Examples of successful public-private technology transfer linkage institutions are provided. But efforts to document the benefits of research conducted at the University of Minnesota to the state have rarely been conducted with the rigor that would be required to meet the test of professional credibility. A program of research to develop more rigorous evidence on economic benefits to the state is proposed. Staff paper. [<http://agecon.lib.umn.edu/mn/p01-10.pdf>]

U of M Grain Flow Study Confirms Dramatic Changes. By Jerry Fruin and Doug Tiffany. Minnesota farmers produce over 1.3 million bushels of grain and oilseed annually. Although the state's livestock industry has expanded, feed utilization has not increased as much as grain production, requiring the development of new markets. Our study showed that dramatic increases have occurred in corn processing (ethanol and sweeteners), in soybean exports from Duluth-Superior, and in direct rail shipments of corn, and especially soybeans, to Mexico. We also found that final destinations and transport modes vary dramatically by area. For example, virtually all the surplus grain from southeast Minnesota is trucked to the Mississippi River for further movement by barge for export. In contrast, surplus grain from southwest Minnesota goes to area processors by truck, or to Pacific Northwest ports and Mexico in trainload shipments.

In *Mill and Elevator News*, v. 11, no. 2, Fall 2001, p. 18–19.

Center Feature: The Business Retention and Expansion Strategies Program

The purpose of the University of Minnesota's Business Retention & Expansion Strategies Program (U.M. BR&E) is twofold: to help local community leaders retain and expand their existing business base, and to educate professionals, students, and others in economic development.

U.M. BR&E was founded in 1990 by Dr. George Morse, a professor and extension economist in the Department of Applied Economics. Today, U.M. BR&E offers a wide variety of educational programs and consulting services promoting the economic well-being of Minnesota communities. The main way we reach out to local communities is by assisting them with the BR&E visitation process.

Goals and Objectives of the BR&E Visitation Process

The BR&E visitation process focuses specifically on local needs and has four major phases.

1. Building a broad community-based task force that includes local decision-makers. The community builds social capital and long-term capacity for effective BR&E by recruiting leaders from different sectors.
2. Making personal visits to businesses. Local leaders do the data collection in face-to-face visits with firm owners.
3. Following up on the concerns of individual firms. The personal interviews reveal opportunities for the community to respond to firm-specific issues.

Taking action on long-term issues of broad concern to business. The task force creates an action plan based on the expressed concerns of the firms it interviewed.

Communities Get Results with U.M. BR&E

U.M. BR&E has adapted its approach to serve the specific needs of the dairy, general agriculture, swine, and tourism industries, as well as small businesses and manufacturing firms. To date, U.M. BR&E has helped 44 communities build stronger communities by suggesting more effective ways to promote local economic development. Here is a community success story.

In 1994, Swift County learned that two large manufacturers planned to move out of state. With the help of U.M. BR&E, community leaders mobilized local and state resources and successfully retained the businesses. Four years later, an estimated 13 percent of the jobs and 18 percent of the income in the county could be attributed to the retention of the two firms. Swift County Commissioner Dick Hanson remarked, "The BR&E program helped change the attitude of business people. They saw that we, as government officials, wanted to help them make the county a better place to do business."

Educational Programs

The U.M. BR&E consultant training program was recently adopted as the preferred certification program by Business Retention and Expansion International (<http://www.brei.org>), an international association that promotes economic development through existing business. In addition, consultants trained by U.M. BR&E help communities through all stages of the BR&E visitation process, which includes team-building and planning, visits to 30–100 businesses, follow-up visits to businesses with problems, and help implementing priority projects. Trained consultants travel to the community 10 to 13 times during a typical visitation program. To learn more about a BR&E visitation, check out the free online information at <http://www.edo.umn.edu>.



Winsted community leaders discuss how the BR&E process will work in their community, August 1999.

Research Consulting Services

U.M. BR&E provides technical assistance to communities conducting BR&E visitation programs and provides written survey instruments, tabulation and analysis of survey results, high-quality research reports, assistance conducting priority-setting sessions, and help creating summary reports. With experience in over 40 local BR&E visitation programs, U.M. BR&E is adept at working with a community's unique needs and aspirations.

Contacting U.M. BR&E

For more examples and information on how our programs can work for you, go to <http://www.bre.umn.edu> or <http://www.edo.umn.edu>. If you would like assistance in your community, contact the program's director, Michael Darger, at 612-625-6246 or mdarger@apcc.umn.edu.



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Minnesota Applied Economist

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UPCOMING POLICY FORUM

The Department of Applied Economics, along with the Agri-Growth Council, the University of Minnesota Center for Transportation Studies, and other organizations, will sponsor a policy forum titled, "Transportation Needs in Today's Global Economy: What Do We Need?" This one-day forum will be held on Thursday, March 21, 2002 at the Earle Brown Center, 1890 Buford Avenue, on the St. Paul Campus.

During the past 25 years the transportation needs of agriculture and the food industry have changed dramatically, especially since valued-added processing, identity preservation, containerized shipping, genetically modified organisms, and crop tracking came into widespread use. The forum will explore the current challenges and future directions of this all-important sector of our national—and global—economy.

A welcome from Myron Just, executive director of the Agri-Growth Council, will begin the day, followed by three morning sessions entitled, "The Current Status of Agricultural Production and Distribution," "Changing Dimensions in Agricultural Transportation," and "The Current State of Carrier-Shipper Business Relations and Vision for the Future." The invited afternoon speaker is Norman Mineta, U.S. Secretary of Transportation, who will give a presentation entitled "The Transportation Needs in the Global Food Economy." The two sessions following Mineta's talk will focus on "Future Needs and Regulatory Issues" and "Balancing Environmental and Social Mandates with the Need for Development."

For information about the forum and how to register, either write to the Agri-Growth Council at 408 St. Peter St., Suite 20, St. Paul, MN 55102, call 651-905-8900, or email agrigrowth@sprynet.com.