

Division of Humanities and Social Studies

COL Kenneth A. Inman, Jr., USMC
Director

Economics Department

Professor William R. Bowman
Chair

Faculty members in the Economics Department were actively engaged in research on a broad range of subjects in 2002-2003. Though every member of the department - professors and officers of varying ranks as well as Visiting Assistant professors - was involved in productive scholarly and/or creative activities, several of these publications, presentations and research areas deserve mention in this introduction.

Associate Professor Karen E. Thierfelder, who was recognized as an "honorable mention" for the Naval Academy's Research Excellence Award, continued to develop and apply computable general equilibrium models to international trade flows. Associate Professor Suzanne K. McCoskey continued her association with the University of Pretoria (South Africa) where she was appointed "Honorary Professor" in August 2002. She served as co-advisor on two PhD dissertations in progress at Pretoria, and she taught there during the summer of 2002, collaborating with faculty on several research projects. She also was an invited examiner on an MSc thesis at the University of Cape Town (South Africa). Associate Professor McCoskey was awarded a Fulbright Alumni Initiatives Award Program grant to support short-term faculty exchange between the Naval Academy and the University of Pretoria. Professor William R. Bowman continued his association with the Naval Postgraduate School (NPS). He traveled twice to Pensacola to give lectures for NPS, developed a Video TeleConference (VTC) course for defense managers, did collaborative research with NPS faculty, and co-directed five Master's theses. Four of these were for students in the Leadership Master's program for incoming company officers at the U. S. Naval Academy (USNA). The fifth was for a student in the Management Systems Analysis program at the Naval Postgraduate School in Monterey, CA. Professor Rae Jean Goodman continued in her role as Director of Teaching and Learning at USNA. Among numerous activities in that role, she organized four on-site workshops on various aspects of effective college teaching, and developed a Handbook for Teaching at the Naval Academy. Professor Goodman served on the American Economic Association (AEA) Committee on Economic Education, organizing a poster session on active learning techniques for the annual meetings in January in Washington. She will organize a similar session for the annual meetings of the AEA in January 2004 in San Diego, CA. The Crowe Chair was vacant this year.

Within the Economics Department, students majoring in Economics also distinguished themselves. The Frederick L. Sawyer Prize, awarded to the best senior research paper by a graduating Economics major, was won by Midshipman 1/C Joseph C. Hembree for his paper "Migration and its Relation to Economic Opportunity within the United States from 1870 to 1900" written under the direction of Assistant Professor Matthew J. Baker.

Sponsored Research

The Regulation of Punitive Damages: Do Damage Caps Matter?

Researcher: Assistant Professor Matthew J. Baker
Sponsor: Naval Academy Research Council (NARC)

The objective of this research was to apply the theory of litigation and settlement in understanding the incidence and amount of punitive damage verdicts. A state-by-state data set of damage verdicts by year for 1980-2000 was developed to aid in this study.

The Value of Copyright Protection

Researchers: Assistant Professor Matthew J. Baker and Assistant Professor Brendan M. Cunningham
Sponsor: Naval Academy Research Council (NARC)

Firms invest a non-negligible portion of their resources in developing, maintaining, and protecting rights over intellectual property. There are several substantial bodies of literature focusing on the legal aspects of copyright law, on the philosophical aspects, and even on the economic theory of copyright. However, there has been virtually no systematic attempt to assess the actual practical importance of copyright protection to firms. It remains unknown how important copyright protection is in determining the profitability of a firm. This paper applied panel data techniques to legal and equity market data in order to estimate the impact of copyright case law on the market value of firms.

The Erosion of Technical Skills in Junior Line Officers: Cause for Concern?

Researcher: Professor William R. Bowman
Sponsor: OPNAV N813C – Training & Education IWAR Team

The objective of this study was two-fold. First, to develop an inventory of technical skills of junior officers in the major line communities, as classified by general skills (having APC scores meeting minimum threshold of NPS technical graduate education programs, which is 3-2-3) versus specific skills (majoring in engineering, mathematics, physics, chemistry, computer sciences, and other minor related programs that correspond to that used by Naval Reactors Board). Analysis was carried out to identify any possible trends in the data covering 1980 – 2002. Second, the study attempted to identify where such technical skills are required by community throughout the Navy (e.g. Civil Engineering Corps, Engineering Duty Officer, etc.), and to identify any trends over time in the allocation of technical skills over these communities. Study found that the numbers of technically competent officers has fallen over the covered period, but that it reflects overall military personnel downsizing. However, there was no rising trend found that many believe is necessary given the growing technologically sophistication of ship weapons and communication systems.

Faculty: Thy Administrator's Keeper? Theory and Evidence

Researcher: Assistant Professor Brendan M. Cunningham
Sponsor: Naval Academy Research Council (NARC)

This paper presented a stylized principal-agent model of firms in higher education. The model incorporated information asymmetries over the actions chosen by administrators, as the agents of colleges and universities. The model predicted insufficient monitoring of administrators by trustees and, consequentially, shirking as a direct result of the non-profit status under which universities operate. We show that faculty will serve as "delegated monitors" given the proper incentives. This solution to the asymmetric information problem is most beneficial for the university when: 1) monitoring costs are lower and 2) administrators can not impose significant punishment costs on faculty. The practices of organized faculty participation in governance and tenure naturally achieve such ends. Empirical evidence from a sample of colleges and universities in the United States supported the model's key prediction that features of a faculty's employment have significant effects on a university's financial outcomes.

On the Interaction of Gender and Growth in Sub-Saharan Africa

Researchers: Associate Professor Suzanne K. McCoskey and Renee Koekemoer (University of Pretoria)
Sponsor: Naval Academy Research Council (NARC)

In recent years there has been an interest in the impact of gender and gender inequalities not only on micro-economic (intra-household) decision-making but also on macroeconomic variables such as economic development, growth and urbanization. This has been of special interest in the context of developing countries. In this paper, the interaction of gender and economic growth was examined using a panel data and a simultaneous equations model for Sub-Saharan Africa. Our results showed that growth can have an impact on both absolute and relative gender gains. In addition, gender gains can impact growth. Evidence was also given on the impact of the SAP on women in Africa.

A Growth-Accounting Approach to Estimate the Impact of HIV-AIDS on Growth in Sub-Saharan Africa: Using Epidemiology Equations to Estimate Effective Labor Supply

Researcher: Associate Professor Suzanne K. McCoskey

Sponsor: Naval Academy Research Council (NARC)

In this paper, the impact of HIV-AIDS in a set of Sub-Saharan African countries was considered by using a simple mathematical model from the epidemiology literature. The virus infection numbers were broken into four basic groups: male-urban, male-rural, female urban and female-rural. These numbers were then linked to output projections using the growth accounting technique suggested by Young (1995). The results showed that HIV-AIDS will have a significant impact on growth and, more importantly, interacts in important ways with the current growth engines in Africa of urbanization and entrance of women into the labor force.

Multi-Period Rent-Seeking Contests with Carryover: Theory and Experimental Evidence

Researchers: Assistant Professor Pamela M. Schmitt and Assistant Professor Kurtis J. Swope

Sponsor: Naval Academy Research Council (NARC)

The majority of theoretical and experimental research stemming from Tullock's (1980) model of rent-seeking considers static, single period contests. This paper contributes to a growing body of research on rent-seeking games by developing and experimentally testing a model in which a player's effort affects the probability of winning a contest in both the current and future periods. Theory predicts that rent-seeking effort will be shifted forward from later to earlier periods, with no change in overall rent-seeking expenditures relative to the static contest. Experimental results indicated a significant shift forward when "carry-over" was allowed and that the amount shifted was directly related to the carry-over rate. Finally, although experimental expenditures are greater than the Nash equilibrium predictions, overall rent-seeking effort in the carry-over contests are lower than in similar static contests.

Economies of Scale for Charitable Organizations: Theory and Evidence

Researcher: Assistant Professor Kurtis J. Swope and Assistant Professor Pamela M. Schmitt

Sponsor: Naval Academy Research Council (NARC)

This paper examined the administrative and fundraising costs of public-serving nonprofit organizations to determine if there are economies of scale for charitable organizations. We analyzed a panel dataset of the financial reports of 134 charities using random effects generalized least squares. The data indicated that significant scale economies exist for both administration and fundraising. That is, the size of an organization is an important determinant of administration and fundraising expenses relative to program service expenses. Contrary to popular belief, age appears to increase an organization's administrative costs, but has no significant impact on fundraising costs. The results were robust across organization types.

Genetically Modified Food, Global Trade Patterns, and Developing Countries

Researchers: Professor Karen E. Thierfelder, Chantal Nielsen (Danish Institute of Agricultural and Research Economics), and Sherman Robinson (International Food Policy Research Institute)

Sponsors: International Food Policy Research Institute (IFPRI) and USNA Recognition Grant (Summer 2002)

This paper analyzed price, production, and trade consequences of changing consumer preferences regarding the use of genetically modified organisms (GMOs) in food production. The analytical framework used was an empirical global general equilibrium model, in which the entire food processing chain - from primary crops through livestock feed to processed products - was segregated into genetically modified (GM) and non-GM lines of production. This model was used to analyze the implications of widespread use of genetically engineered crops in some regions whilst consumers in Western Europe and High-income Asia adopted a critical attitude toward GM foods. Two different representations on consumer preference changes were illustrated: (1) a change in price sensitivity: i.e. consumers demand was less sensitive to a decline in the price of GM foods relative to non-GM varieties, and (2) a structural demand shift: for a given price ratio consumers simply demanded less of the GM variety relative to the non-GM variety.

This analysis found that developing countries adjusted their trade patterns in response to preference changes in important trading partner countries. Non-GM varieties were diverted to GM-critical regions while GM varieties were sold to countries in which consumers were not sensitive to GM content. Furthermore, the development of segregated GM and non-GM food created a potential niche market for producers if the non-GM characteristics can in fact be preserved and verified throughout the marketing system at reasonable costs.

Trade and Tradability: Exports, Imports and Factor Markets in the Salter-Swan Model

Researchers: Professor Karen E. Thierfelder

and Sherman Robinson (International Food Policy Research Institute)

Sponsor: International Food Policy Research Institute (IFPRI) and USNA Recognition Grant (Summer 2002)

The Salter-Swan model was extended to include both factor markets and semi-traded goods. In our model, changes in relative factor prices depended on changes in world commodity prices, factor endowments, and the trade balance. In contrast, only changes in world commodity prices affected factor prices in the neoclassical trade model. The inclusion of semi-traded goods weakened the magnification effect in both the Stolper-Samuelson and Rybczynski theorems. When imports and domestic goods are poor substitutes, a characteristic of some commodities in developing countries, the sign of the Stolper-Samuelson theorem was reversed.

The Global Impacts of Farm Policy Reforms in Organization for Economic Cooperation and Development Countries

Researchers: Professor Karen E. Thierfelder, Mary Burfisher (U.S. Department of Agriculture, USDA), and Sherman Robinson (International Food Policy Research Institute)

Sponsor: International Food Policy Research Institute and USNA Recognition Grant (Summer 2002)

Multilateral negotiations on agricultural trade liberalization will require World Trade Organization (WTO) members, including Organization for Cooperation and Development (OECD) countries, to improve market access and to reduce domestic support and export subsidies. In this paper, the effects of agricultural policy reform by three OECD members who are major economies in world agricultural trade—the United States, the European Union (EU), and Japan—were analyzed. A multi-country computable general equilibrium (CGE) model with detailed treatment of the agricultural trade and domestic policies in OECD countries was used. The framework took into account the differences in production impacts among traditional, commodity-linked production subsidies and other types of domestic subsidies that recently have become more important in countries' farm support programs. The operational features of farm support programs were captured, allowing some domestic subsidies to insulate producers from market price changes while treating other payments as fixed, lump sum subsidies. When domestic policies insulate producers from market price signals, they dampen production responses to market access reforms in the domestic economy and to reforms in both partner countries. The study found that this linkage leads to dramatic reductions in a country's farm program costs when another country eliminates its support unilaterally. Given the links among domestic support programs in OECD countries, it was also found that multilateral reform leads to smaller output adjustments than unilateral reform.

Agricultural Policy Reforms in Developed Countries, Global Trade and Developing Countries

Researchers: Professor Karen E. Thierfelder, Mary Burfisher (U.S. Department of Agriculture, USDA), and Sherman Robinson (International Food Policy Research Institute)

Sponsor: International Food Policy Research Institute and USNA Recognition Grant (Summer 2003)

Developing countries object to the high tariff barriers they face in developed markets and the extensive use of domestic support to agriculture in developed countries. These issues - market access and domestic support - are currently being negotiated at the World Trade organization (WTO). In this paper the effects of agricultural policy reforms in developed countries on global trade patterns were evaluated. A multi-country computable general equilibrium (CGE) model with 16 countries/regions and 18 sectors was used. Focusing on agricultural reforms, the paper provided detailed farm and food processing sectors. The rest of the sectors in the economy were included in two aggregate categories, services and manufac-

turing. A cluster analysis of food security to aggregate developing countries into two regions, the food insecure countries and the other, food exporting, developing countries was used. Each group reacted quite differently to changes in the world price of agricultural products. In the model domestic agricultural policies in the Organization for Cooperation and Development (OECD) countries were specified, using producer subsidy equivalent (PSE) data for policies in 2000. Policy instruments were modeled as endogenous where applicable. For example, the U.S. loan deficiency payments, Japan's deficiency payments for rice, and the EU's intervention price as a fixed producer price with endogenous farm program expenditure payments were represented. Producers who participate in these programs are insulated from changes in market prices. It was found that unilateral reform was more painful than multilateral reform in the OECD countries. This suggests that developing countries should pursue their goals of domestic reforms in a global setting, rather than through regional agreements. When OECD countries remove domestic support and eliminate agricultural tariffs, the world price of agricultural products increases. This hurts food insecure developing countries, but helps developing countries that export agriculture.

Trade Liberalization and Regional Integration: The Search for Large Numbers

Researchers: Professor Karen E. Thierfelder, Mary Burfisher (U.S. Department of Agriculture, USDA),
and Sherman Robinson (International Food Policy Research Institute)

Sponsor: International Food Policy Research Institute and USNA Recognition Grant (Summer 2002)

The debate over the impact of regional trade agreements (RTAs) on world welfare hinges upon (1) whether they are net trade creating or diverting and (2) whether they impede multilateral trade liberalization. Theoretical models are ambiguous on these issues. The insights from the vast body of empirical literature on multi-country CGE models which analyze RTAs were summarized in this paper. The empirical models overwhelmingly show that aggregate trade creation dominates trade diversion. Indeed, in many cases, there is no absolute aggregate trade diversion from an RTA. The models also indicate that welfare for all members—both current and potential—increases when RTAs expand. There are even bigger welfare gains when models incorporate aspects of “new trade theory” such as increasing returns, imperfect competition, technology transfers, trade externalities, and dynamic effects such as links between trade liberalization, total factor productivity growth, and capital stock accumulation. In this paper, the search for large numbers was broadened by suggesting an additional gain from RTAs. It was conjectured that increases in intra-sectoral trade arise from the fact that an RTA provides an expanded secure market, and permits firms to pursue economies of fine specialization. This Smithian specialization in production is another source of efficiency gains.

INDEPENDENT RESEARCH

Optimal Land Inheritance Rules

Researchers: Assistant Professor Matthew J. Baker and Thomas Miceli (University of Connecticut)

This paper was based on the final chapter of Baker's doctoral dissertation (restructured) and sent to the Journal of Law and Economics. (It is currently under review there.) The paper described the forces leading to different types of land inheritance rules (such as primogeniture), and described the impact the onset of a market in land has on the efficacy of the rule. A cross-cultural sample of 862 different societies was used to assess the accuracy of the model.

Post-marital Residence in Indigenous Society

Researchers: Assistant Professor Matthew J. Baker and Joyce Jacobsen (Wesleyan University)

This research studied theoretically and empirically the economics of post-marital family location. The model was essentially one in which the planning advantages of a residence rule must be offset by the need for adaption. The model was applied to explain observed patterns in post-marital residence customs across societies.

The Customary Gender Division of Labor

Researchers: Assistant Professor Matthew J. Baker and Joyce Jacobsen (Wesleyan University)

This research studied the relationship between marriage, the land market, and the incentives parties to marriage have to specialize and learn specific tasks.

Output-sharing in Hunter-Gatherer Society and Optimal Resource Use Incentives

Researchers: Assistant Professor Matthew J. Baker, Assistant Professor Pamela M. Schmitt,
and Assistant Professor Kurtis J. Swope

This project is currently nearing completion, and concerns the resource management role of sharing in hunter-gatherer societies. The hypothesis is that hunter-gatherers can enact sharing systems that regulate use of resources to the advantage of all members of the group. The theory relies on the economic theory of the commons, and empirical evidence from the ethnographic record is discussed.

Clinical Pathways and the Costs of Stroke Care

Researchers: Assistant Professor Matthew J. Baker, Assistant Professor Pamela M. Schmitt,
and Genevieve Schmitt and Marcella Wozniak (University of Maryland Medical Systems)

This research studied the impact of adoption of a “pathways” program to manage treatment of stroke patients on hospital costs.

The Treatment of the Elderly in Indigenous Society

Assistant Professor Matthew J. Baker and Joyce Jacobsen (Wesleyan University)

This research studied the relationship between institutions that promote care of the elderly, and incentives to accumulate capital and savings earlier in life. The research compared the nature of elderly care in 75 societies and their coincident rates of capital accumulation and work early and late in life.

Price, Quality, and Merger: Do Consumers Benefit?

Researcher: Assistant Professor Matthew J. Baker

This research studied the impact of a merger on firms’ quality and price choices, and whether or not a merger can be expected to benefit consumers. The research compared cases of complementary and substitute products.

A Theory of Broadcast Media Concentration and Commercial Advertising

Researchers: Assistant Professor Brendan M. Cunningham
and Peter Alexander (Federal Communications Commission)

This paper presented a positive model of broadcasters, advertisers, and consumers. It was assumed that the advertising market was characterized by imperfect competition and demonstrated that increasing concentration in broadcast media industries may induce a reduction in the total amount of non-advertising broadcasting, which may have further implications for consumer welfare. It was found that the extent of this reduction in non-advertising content was contingent, in part, on the behavioral response of viewers to an increase in the level of advertising. If the consumers’ response to an increase in the level of advertising is strong, it is plausible that the fraction of broadcasting devoted to advertising may increase.

Financial System Regulatory Policy and Macroeconomic Performance: A General Equilibrium Analysis

Researcher: Assistant Professor Brendan M. Cunningham

In a variety of economies, recent years have witnessed prominent alterations in the regulatory framework under which financial systems operate. Most notable among these alterations are the host of revisions to the regulatory framework faced by financial intermediaries such as banks. From a theoretical perspective, this paper assessed the potential impact of regulatory policy on macroeconomic aggregates and the behavior of financial intermediaries. The general equilibrium model employed in this paper extended the neoclassical real business cycle framework by incorporating a financial intermediary with access to a stochastic capital-generating technology. In the presence of a deposit insurance system, intermediaries may choose to screen this technology and have direct control over the volatility of the capital return. It was found that in the model's steady-state, the deposit insurance premium exerted leverage over equilibrium screening and economy-wide consumption but had an ambiguous effect on the volatility of the intermediary's portfolio.

A Theory of Consumer Welfare and Diversity in Media

Researchers: Assistant Professor Brendan M. Cunningham
and Peter Alexander (Federal Communications Commission)

Although regulatory policy in the United States is designed to preserve diversity in media industries, the economic rationale for such a mandate is not well understood. This paper presented a positive model in which consumers derive utility from media output. It was assumed that media consumption was unique in that its ultimate welfare value to a consumer was fundamentally uncertain, ex-ante. Given the stochastic nature of media consumption, it was demonstrated that consumer welfare was enhanced by the existence of a variety of media firms, each of which was somewhat unique. It was then possible to formally model merger activity and establish the conditions under which consolidation was beneficial and/or harmful to consumer well being. The approach provided broad welfare-based guidelines for determining the desirability of merger activity in media industries.

Jigsaw Method in Macroeconomics: Scholarship of Teaching and Learning

Researcher: Professor Rae Jean B. Goodman

Within the context of cooperative learning groups, it was shown how the jigsaw method was used for students to learn consumption, investment, and money demand theories. The results of a small study showed that students perform better on exam questions than those taught by lecture and that the students involved with using the jigsaw method preferred that approach to a traditional "chalk and talk" approach.

The jigsaw procedure (Johnson, Johnson, Smith; Bartlett) is an alternative to student reading and faculty lecturing on a topic and provides the students with an opportunity to teach and learn material from peers. The procedure is to assign the same topics to all cooperative learning groups; to divide the material into unique parts, like a jigsaw puzzle, so that each member of the group has a "piece of the puzzle." Each member studies the specific topic assigned, decides how to teach that material to the group, and then teaches the topic. Each student learns all of the topics with the teaching and assistance of the other group members.

The jigsaw procedure incorporates the essential elements of cooperative learning: positive interdependence, individual and group accountability, face-to-face interaction, teamwork skills and group processing. The results of using this method to teach consumption, investment and money demand theories were:

1. The class time allocated for the material was less than when presented by the professor in lecture format.
 2. Students performed better on examination questions than when the material was presented in the lecture format.
 3. Student response to the technique and the learning experience was positive.
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A Spatial Correlation-Based Study of the Incidence of HIV-AIDS in Sub-Saharan Africa

Researcher: Associate Professor Suzanne K. McCoskey

The adult incidence of HIV-AIDS has been discussed and modeled by both economists and health professionals. Usually these models include socio-economic variables and variables which capture sexual attitudes and practices. In this paper a cross-section model of adult HIV-incidence in Sub-Saharan Africa was specified. The model was used to test for potential spatial correlation and emphasis was placed on whether spatial correlation implies that HIV-incidence has a regional impact which surpasses simple single country analysis.

Product Differentiation in the Minneapolis Retail Gasoline Industry

Researchers: Assistant Professor Pamela M. Schmitt and Second Lieutenant Melanie J. Stock, USMC

Using daily price data for Minneapolis retail gas stations, the effect of spatial and quality differentiation on price was empirically investigated. Quality differentiation was measured by a binary variable when gas stations offer additional services (pay at the pump, car wash, service stations, and food markets). The further away from the closest competitor, the lower the station's price, suggesting collusion may be possible when stations locate close together. The further away the second closest competitor, the higher the station's price which suggests that competition decreases with spatial distance. In addition, quality factors for the gas station significantly affect its price.

Taxes or Fees? The Political Economy of Providing Excludable Public Goods

Researchers: Assistant Professor Kurtis J. Swope and Eckhard Janeba

This paper provided a positive analysis of public provision of excludable public goods financed by uniform taxes or fees. Individuals differing in preferences decide using majority-rule the provision level and financing instrument. A theoretical model indicated that the median preference individual was the decisive voter in a tax regime, while an individual with preferences above the median generally determined the fee in a fee regime. Numerical solutions indicated that populations with uniform or left-skewed distributions of preferences chose taxes, while a majority coalition of high and low preference individuals preferred fees when preferences are sufficiently right-skewed. Public good provision under fees exceeded that under taxes in the latter case.

Trade and Tradability: The Effects of an FTAA on Agricultural Trade in the Western Hemisphere

Researchers: Professor Karen E. Thierfelder, Mary Burfisher (U.S. Department of Agriculture, USDA), and Sherman Robinson (International Food Policy Research Institute)

Trade liberalization in an FTAA will have relatively small effects on agricultural trade in the Western Hemisphere. If the FTAA achieves the full elimination of tariffs, annual agricultural trade among FTAA participants will increase by about \$3 billion. U.S. annual agricultural exports to and imports from the Hemisphere will both increase by about \$1 billion. The relatively small impacts of an FTAA reflect that much of the agricultural trade in the region has already been liberalized by unilateral and sub-regional trade reforms implemented over the past decade, including NAFTA and MERCOSUR. The main benefits to the Hemisphere of advancing to an FTAA will be to lock in existing preferences, to help accelerate economic growth in the region based on open market economies, and to integrate the large number of sub-regional pacts into a single Hemispheric trading system. The benefits to FTAA members from further reform in the WTO are potentially much larger than their gains from full tariff elimination in the FTAA – suggesting that there can be significant benefits for its members if the FTAA serves as a building block for multilateral reforms.

Free Trade Agreements and the SADC Economies

Researchers: Professor Karen E. Thierfelder, Jeffrey Lewis (World Bank)
and Sherman Robinson (International Food Policy Research Institute)

Countries in Southern Africa have engaged in a variety of trade liberalization initiatives. For example, South Africa and the European Union (EU) negotiated a free trade agreement (FTA) in 1999. The EU unilaterally opened its markets to the least developing countries, which includes some of the countries in the region, in 2001 under its “Everything But Arms” (EBA) initiative. Although not formally established, countries in the region have discussed a SADC FTA. In this paper, a multi-country, computable general equilibrium model was used to analyze the impact of trade liberalization on countries, sectors, and factors. To focus on trade flows among countries in Southern Africa, the model included seven countries in the region (South Africa, Botswana, Malawi, Mozambique, Tanzania, Zambia, and Zimbabwe), the rest of SADC, the rest of Sub-Saharan Africa, and five other aggregate regions (the EU, High-income Asia, Low-income Asia, North America, and the rest of the world). First, the FTA between South Africa and the EU was analyzed. Then, it was taken into consideration how the rest of Southern Africa might respond: (1) by enforcing a SADC FTA; (2) by exploiting the advantages of unilateral access to the EU in addition to a SADC FTA; and (3) by entering an FTA with the EU and other SADC countries. It was found that trade creation dominates trade diversion for the region under all FTA arrangements. Some SADC countries were slightly hurt by the FTA between the EU and South Africa while others slightly gain. Overall, the agreement was not a beggar thy neighbor policy. Unilateral access to the EU is more beneficial, in terms of real GDP and real absorption, for SADC countries than a SADC FTA. However, reciprocal reforms, under and EU-SADC FTA dominate unilateral access to the EU because they require more structural adjustment. Finally, it was found that South Africa is not large enough to serve as a growth pole for the region. Access to EU markets provides substantially bigger gains for the other SADC countries than access to South Africa.

Developing Countries and the Gains from Regionalism: Links between Trade and Farm Policy Reform in Mexico

Researchers: Professor Karen E. Thierfelder, Mary Burfisher (U.S. Department of Agriculture, USDA),
and Sherman Robinson (International Food Policy Research Institute)

A multi-country computable general equilibrium (CGE) model with agricultural policy details was used to simulate the effects of the North America Free Trade Agreement (NAFTA). It was found that Mexico gains from NAFTA only when it also removes domestic distortions in agriculture. In that case, agriculture can generate allocative efficiency gains large enough to offset the terms of trade losses that arise because Mexico has higher initial tariffs than its NAFTA partners. When a Regional Trade Agreement (RTA) forces a developing country to reform its domestic distortions that are linked to trade restrictions, it becomes a building block toward multilateralism.

Consumer Preferences and Trade in Genetically Modified Foods

Researchers: Professor Karen E. Thierfelder, Chantal Nielsen (Danish Institute of Agricultural and Research Economics), and Sherman Robinson (International Food Policy Research Institute)

Major agricultural exports such as the U.S., Argentina, Australia, and Canada have adopted genetic engineering in agriculture. However, consumers in certain importing countries, particularly the EU and Japan, are wary of consuming these products. In this paper, the impact of consumer attitudes towards genetically modified (GM) food on global production, prices and trade patterns was analyzed. It was found that the potential benefits for GM producers depend crucially on consumers' willingness to accept this new variety. If consumers reject GM foods at any price, the production of non-GM foods, with trustworthy labeling policies, may be more profitable than producing GM crops.

The New Regionalism Debate

Researchers: Professor Karen E. Thierfelder, Mary Burfisher (U.S. Department of Agriculture, USDA),
and Sherman Robinson (International Food Policy Research Institute)

The “new regionalism” of the 1990s is quite different from the “old regionalism” of the 1950’s and 1960’s. The objective of this paper was to review the major elements of the economics debate on “new regionalism.” First, recent trends in the types of RTAs being formed was described. The WTO framework that disciplines RTAs was also described and discussed the challenges it faces. In sections three and four the debate was summarized, beginning with the arguments against new regionalism and the analytical tools underlying those arguments. Then the arguments supporting new regionalism were summarized. The paper concluded with a discussion of testable hypotheses that may be used to strengthen the theoretical arguments used in the debate over new regionalism.

Midshipman Research Course Projects

Vertical Integration in the U.S. Oil Industry and its Impact on Profitability

Researcher: Midshipman 1/C David Crabbe, USNR
Adviser: Assistant Professor Pamela M. Schmitt

The production chain of oil is a complex and expensive process. The oil industry is, therefore, comprised of many vertical relationships between hundreds of firms. Vertical relationships present specific problems to individual firms, the industry itself, and consumers. One of the most significant of these problems is double marginalization, the process by which the price of a good is marked up multiple times above its original cost before it is made available to consumers. The net results of double marginalization are that prices are higher and firm profits suffer. Vertical integration is one solution to double marginalization. This paper examined how vertical integration effects profitability within the U.S. Oil Industry by looking at the profits from a pool of different firms. Annual Earnings per Share data was used as a measure of an individual firm’s profitability over time. The Earnings per Share data was regressed over several variables that indicated each individual firm’s degree of vertical integration. The results showed that vertical integration has a positive impact on firm profitability and that integration into the retail sector of the oil industry is the best profit-enhancing move an oil firm can make.

On the Demand for Public Transportation in Washington D.C.:

A Nested Panel Fixed Effects Approach

Researcher: Midshipman 1/C Robert Franklin, USN
Adviser: Assistant Professor Kurtis J. Swope

This paper used Metrorail ridership data from 1977-2001 to predict the demand function for public transportation in Washington, D.C. The data takes the form of an unbalanced nested panel because the Metro has grown over time and because some economic variables are county-specific while others are state-specific. The results indicated that there is a positive, inelastic cross-price elasticity of demand between gas prices and demand for the Metrorail. There was a negative and inelastic relationship between Metrorail ticket prices and demand. The results also indicated that end stations have a significant draw on riders and diminish the effect of other stations with parking lots. The line a rider chooses was significant and the number of places a rider can potentially disembark the Metrorail played a significant role in ridership. However, the results showed a trend away from Metrorail ridership. Because of heteroscedasticity, a WLS model was used. A potential bias between modes of public transportation was uncovered as seen in the positive relationships between income and ridership.

Ultimatum Bargaining with Pre-commitment: Fairness or Personality Type?

Researcher: Midshipmen 1/C Justin Mayer, USN

Adviser: Assistant Professor Pamela M. Schmitt

This paper addressed the roles of pre-commitment, altruism, and personality type in ultimatum bargaining games through a series of ultimatum bargaining experiments. The role of pre-commitment was investigated by introducing both binding and non-binding pre-commitment on the part of the responder. The role of altruism was investigated by introducing a hostage player; the hostage player received a small payoff if the responder accepted the proposed offer, but earned nothing upon rejection. Personality type was analyzed using players' Myers-Briggs personality test scores. It was suspected pre-commitment may play a large role in bargaining situations and may partially explain why, contrary to theory, low offers are frequently rejected. If we found no significant differences between pre-commitment and basic ultimatum games, it may imply that players made a subconscious pre-commitment before playing. The existence of significant differences in response rates and offer levels due to a hostage may be interpreted as altruistic behavior. Finally, the paper looked at the ability to answer questions based on personality type. Specifically, were Perceivers more willing to accept a low offer, and did Judges reject more frequently? Does being an Introvert or Extrovert change the results of a game?

Factors in Bank Failures: A Study of Influences on the United States' Bank Sector's Stability

Researcher: Midshipman 1/C Eric Smith, USN

Adviser: Assistant Professor Brendan M. Cunningham

The banking sector of the United States economy is a complicated area in which a large number of factors both directly and indirectly affect its welfare. This paper addressed the interaction between bank failures, the dependent variable, and several independent variables. The independent variables included state and national deregulations, GDP and GSP growth, capital ratios, and fixed effects. The regression models used included Ordinary Least Squares, Poisson, and Negative Binomial regressions. By analyzing each regression model, an estimation of the interaction between the independent and dependent variables could be formulated.

It is possible that some deregulations, increases in GDP and GSP growth, higher capital ratios, and some fixed effects will decrease the number of bank failures per state each year, while other deregulations, decreases in GDP and GSP growth, lower capital ratios, and other fixed effects will increase the number of failures. This project used the data for these dependent variables for all 50 states from 1977-2000.

By analyzing each regression model, an estimation of the interaction between the independent and dependent variables has been obtained. The results suggest that the Negative Binomial regression was the best fit regression, and that some deregulations, increases in GDP growth, higher capital ratios, and some fixed effects decreased the number of bank failures in each state per year.

“The Price is Wrong.” An Analysis of the Contributing Factors to Deviations in the Law of One Price

Researchers: Midshipman 1/C John R. Whitehead, USN

Advisers: Associate Professor Suzanne K. McCoskey and Albert de Wet (University of Pretoria)

The Law of One Price states that in competitive markets free of transportation costs and official barriers to trade, identical goods sold in different countries must sell for the same price when their prices are expressed in terms of the same currency. Past empirical studies have typically focused on time series data and have found that the Law of One Price does not generally hold. This study continued this research by attempting to show what factors are most responsible for significant deviations from this one price. A dataset consisting of price information on 87 different goods and services in both the United States and South Africa was collected. Microeconomic and International factors such as distance from manufacturer, market power, elasticity, and factors of trade were then analyzed to determine which had the greatest impact on observed deviations from the “one price”. Empirical results showed that the most significant contributions of deviations from the Law of One Price were variables concerning whether the goods had been imported into the US or South Africa, the distance between the site of production and the sales site in South Africa and variables constructed to capture different categories of goods.

Publications

Journal (Refereed) Manuscripts

BAKER, Matthew J., Assistant Professor and Miceli, Thomas, "Statutes of Limitations for Accident Cases: Theory and Evidence," *Research in Law and Economics*, JAI Press, p. 47-67.

This paper provided a theoretical and empirical analysis of the statutes of limitations for accident cases. The theoretical model formalized the tradeoff underlying a finite statute of limitations: while a shorter statute limits injurers' exposure to liability, thereby curbing incentives for care, it also limits costly litigation associated with legal error. The model yielded several comparative static results that were tested using cross-state variation in statutes of limitations for personal injury cases and accidental damages to property. In order to minimize the impact of historical inertia in the statutes, census data from 1910 and statute lengths from 1916 were used. This represented the earliest period when there were both adequate census data to construct the explanatory variables, and a convenient survey of the statute for the forty-seven states. Despite difficulties in constructing the data, the empirical model performed reasonably well in explaining variation in statute lengths.

BAKER, Matthew J., Assistant Professor, Bradley, Betsy and Gallo, William, "Factors Associated with Home Versus Institutional Death among Connecticut Cancer Patients," *Journal of the American Geriatrics Society*, forthcoming.

A study was conducted to examine the factors associated with home versus institutional death among cancer patients in Connecticut. It was noted that recent interest in home deaths stems from concerns regarding the quality and cost of institutional end-of-life care. Data was drawn from 6,813 adults who had died of cancer-related causes in 1994 and had been previously diagnosed with cancer in Connecticut. The findings indicated that dying at home--rather than in an institution--was associated with demographic characteristics, disease-related factors, and health resource factors. It was concluded that the identification of certain groups susceptible to institutionalized death allows for the promotion of home death, if so preferred by patients and their families.

BAKER, Matthew J., Assistant Professor, Miceli, Thomas, Sirmans, C. F., and Turnbull, Geoffrey, "Optimal Title Search," *Journal of Legal Studies*, January 2002.

In the United States, title to land is protected by a system of public records that would-be buyers must consult in order to ensure that they are dealing with the true owner. Search is a costly process; however, especially as one goes back in time and the records deteriorate. This paper used a sequential search model to determine how far back in time buyers should search. It was found that, in general, search of the entire record is not optimal, which implies that optimal search does not establish title with certainty. The model was tested using state statutes and search guidelines that limit the required length of title search. Our results showed that the search limits vary across states according to the predictions of the model.

BAKER, Matthew J., Assistant Professor, "An Equilibrium Conflict Model of Land Tenure in Hunter-Gatherer Societies," *Journal of Political Economy*, February 2003.

This paper applied features of the economics of conflict and spatial competition in developing a model of the emergence of land ownership in hunter-gatherer societies. Tenure regimes are the result of interactions between those seeking to defend claims to land and those seeking to infringe on those claims. The model highlighted the dependence of land ownership on ecological parameters, such as resource density and predictability, and allowed for situational ownership, in which the nature of ownership changes as realized ecological conditions change. The paper concluded with a comparative assessment of tenure across a representative sample of hunter-gatherer peoples.

BOWMAN, William R., Professor and Mehay, Stephen L., "College Quality and Employee Job Performance: Evidence from Naval Officers," *Industrial and Labor Relations Review* (55:4), July 2002, pp. 700-714.

This study analyzed the effects of college quality and individual academic background on selected job performance measures for officers working in professional and managerial jobs in the U.S. Navy. The study analyzed performance indicators at selected career points for cohorts in occupational groups. Among staff personnel, who perform mostly administrative and support functions, the authors find that graduates of private schools, regardless of college quality, received better performance appraisals than did other officers. Among line personnel, who perform jobs on ships and submarines and in aviation, graduates of top-rated schools, both public and private, received better appraisals during the early career period. Within both occupational groups, graduates of top-rated private schools were more likely than other officers to be promoted at the up-or-out point. The results were consistent with prior studies that find an earnings premium attached to attendance at elite private colleges.

CUNNINGHAM, Brendan M., Assistant Professor, "The Distributional Heterogeneity of Growth Effects: Some Evidence," *The Manchester School*, forthcoming.

This paper applied quantile regression and non-parametric density estimation techniques to international data on long-run economic growth. This approach revealed that previously identified drivers of growth vary in their impact across the conditional distribution of international growth. Specifically, these factors display disparate effects in conditional low-growth and high-growth contexts. These results suggest there is a general bias underlying prior research. The incumbent drivers of growth exhibit relatively larger coefficients, in absolute value, on the upper tail of the conditional growth distribution. This set of stylized facts identifies factors that might alter the international distribution of growth.

CUNNINGHAM, Brendan M., Assistant Professor, Alexander, P. J., and Adilov, N., "Peer-to-Peer File Sharing Communities," *Information Economics and Policy*, forthcoming.

Peer-to-peer file sharing communities present a paradox for standard public goods theory, which predicts that free-riding should preclude the success of the community. A model was presented in which users choose their level of sharing, downloading, and listening in the presence of sharing costs and endogenous downloading costs. In this model, sharing emerged endogenously, largely as a byproduct of users' attempts to reduce own-costs.

FORREST, Tyler W., Ensign, USNR, and SCHMITT, Pamela M., Assistant Professor, "Customer Racial Discrimination in the Professional Sports Card Market: The Case of League Majority versus Minority," *University Avenue Undergraduate Journal of Economics*, Vol. VI No. 1, 2002-2003.

Previous research finds that customer racial discrimination decreases the price of a non-white baseball player's card but does not decrease the price of a non-white basketball player's card. This paper sought to examine if racial minority or league minority affected the value of a trading card. Using disaggregated player performance data from 1977 this question with baseball cards (in which non-white players are the league minority) and basketball cards (in which non-white players are the league majority) was explored. Using Tobit regressions, it was found that customer discrimination exists against non-white players in both baseball and basketball leagues.

GOODMAN, Rae Jean B., Professor, and Melican, Claire, "Advanced Placement Economics," *Social Education*, Vol. 67, No. 2, March 2003.

The Advanced Placement (AP) examination in economics offers academic benefits, advanced placement or college credit. Financial benefits can also follow if a student is able to complete degree requirements sooner. The examination provides high school students with an opportunity to compare their knowledge and understanding with that of a national group of students, and has shown that high school students can demonstrate an impressive grasp of economic concepts and principles. This article summarizes the current state of AP economics, provides an idea of the qualifications of the high school teachers of AP Economics courses, discusses the variety of approaches to teaching economics in the high school classroom and lists additional resources to assist AP economics teachers.

GOODMAN, Rae Jean B., Professor, Maier, Mark Maier and Moore, Robby, "Regional Workshops to Improve the Teaching Skills of Economics Faculty," *The American Economic Review*, Vol. 93, No. 2, May 2003.

The Regional Workshop Program in Active Learning for College and University Teachers of Economics is the most recent version of a long line of support for college and university economics faculty. The founding program was the Teacher Training Program (TTP) initially funded by the Sloan Foundation. In 2001, the Calvin K. Kazanjian Foundation, Inc. initiated funding for short-term regional workshops. Workshop coordinators chose a variety of formats: principles text author as main speaker; expert outside of economics; adjunct to regional meetings; single day sessions, and sharing of recommended techniques by participants.

All workshops shared a commitment to active learning. A second common theme was the uniformly positive-evaluations by participants, rating the experience itself as valuable, and willingness by participants to use the techniques in their own courses and to share them with colleagues. Overall, 73 percent of the participants thought that the workshops were a better use of time than an alternative; 96 percent thought the workshop would improve their own teaching; and 69 percent thought that they would be a better teaching resource for their colleagues as a result of the workshop. Participants came predominantly from smaller two- and four-year institutions with a teaching mission.

McCOSKEY, Suzanne K., Associate Professor, and Moolman, H.C., "On the Long-Run Interdependence of Stock Markets: A Tale of Correlations, Autoregressions, and Decompositions," *South African Journal of Economic and Management Sciences*, 3 September 2002, pp. 526-548.

From the literature it seems as if stock markets of countries within certain groups are interdependent. Is it still possible to diversify among these groups, or has globalization tied world markets together to such an extent that diversification is no longer feasible? In this study, time series techniques were used to investigate the relationships among stock markets of four of the most important groups of economies, Europe, Latin America, Asia and the US.

McCOSKEY, Suzanne K., Associate Professor, and Moolman, H. C., "The Impact of Misdiagnosing a Structural Break on Standard Unit Root Tests: Monte Carlo Results for Small Sample Size and Power," *Studies in Economics and Econometrics*, forthcoming.

As discussed by Perron (1989), a common problem when testing for unit roots is the presence of a structural break that has not been accounted for in the testing procedure. In this paper the impact of ignoring structural breaks on small sample sizes of interest to empirical economists was investigated. An example from South Africa to show the danger of misdiagnosis was provided and the resulting misspecifications that could occur.

SCHMITT, Pamela M., Assistant Professor, "The Impact of a Marginal Cost Increase on Price and Quality: Theory and Evidence from Airline Market Strikes," *Australian Economic Papers*, Vol. 41, Issue 3, 2002, pp. 282-304.

This paper examined the impact of a marginal cost increase for one firm on price and quality in a duopoly market. The results were derived theoretically and then tested empirically. The marginal cost increase was interpreted as an increase in the wage one firm pays its workers. The predictions were tested with two United States airline strikes during the 1990's. Quality was proxied in three ways: (1) the number of flights per day, (2) the percentage of flights canceled, and (3) the percentage of flights arriving late. The results showed that the strike coefficients for the effects on quality were most consistent with theoretical predictions when quality was measured as the number of flights per day. These results were encouraging because of the three measures of quality, it seems that number of flights per day is the measure of quality that is most controllable by the firm. The strike coefficients for the direct effect on price are most consistent with theoretical predictions when quality rankings are determined by the percentage of flights canceled. The strike coefficients for the total effect on price are most consistent with theoretical predictions when quality rankings are determined by the percentage of flights arriving late.

SCHMITT, Pamela M., Assistant Professor, "A Vertically Differentiated Duopoly with Marginal Cost Differentials," *International Game Theory Review*, Vol. 5, No. 1, 2003, pp. 73-81.

A vertically differentiated duopoly model analyzes the impact of marginal cost differentials on price and quality. Firms play a two-stage game, first simultaneously choosing quality and then simultaneously choosing price. When the firm producing the high quality good faces an increase in its marginal cost, both firms increase price and upgrade quality. When the firm producing the low quality good faces an increase in its marginal cost, both firms decrease price and downgrade quality.

SCHMITT, Pamela M., Assistant Professor, "On Perceptions of Fairness: The Role of Valuations, Outside Options, and Information in Ultimatum Bargaining Games," *Experimental Economics*, accepted for publication.

This study examined fairness perceptions in ultimatum bargaining games with asymmetric payoffs, outside options, and different information states. Fairness perceptions were dependent on treatment conditions. Specifically, when proposers had higher chip values, dollar offers were lower than when responders had higher chip values. When responders had an outside option offers were higher and were rejected less often than when proposers had an outside option. However, a given offer was rejected more often when responders had an outside option. Therefore, similar to the first mover advantage, the "advantaged" or "entitled" player received a higher monetary payoff than they would otherwise. When there was complete information about payoff amounts (payoff conversion rates and outside options), rejections occurred more often, and given offer amounts were rejected more often than when there was incomplete information. When there was incomplete information, offers were higher in the initial rounds than in the final rounds. These results suggest that proposers made offers strategically, making offers that would not be rejected, rather than out of a concern for fairness.

SWOPE, Kurtis J., Assistant Professor, "An Experimental Investigation of Excludable Public Goods," *Experimental Economics*, 2002, 5(3), pp. 209- 222.

This paper extends the research on incentive compatible institutions for the provision of public goods. Excluding non-contributors transforms the linear n-player pure public goods game to an n-player coordination game with multiple, Pareto-rankable Nash equilibria. Exclusion increases contributions to a public good in most cases. However, it was found that an increase in contributions may not be sufficient to increase social welfare because there was a welfare cost to excluding non-contributors when the public good was non-rival. Furthermore, exclusion can decrease both contributions and welfare in environments in which individuals fail to coordinate their contributions. The results are sensitive to the minimum contribution requirement and to the relative returns from the public and private alternatives.

THIERFELDER, Karen E., Professor, Lewis, Jeffrey D., and Robinson, Sherman, "Free Trade Agreements and the SADC Economies," *Journal of African Economies*, Vol. 12, no. 2, pp. 151-206.

Countries in Southern Africa have engaged in a variety of trade liberalization initiatives. For example, South Africa and the European Union (EU) negotiated a free trade agreement (FTA) in 1999. The EU unilaterally opened its markets to the least developing countries, which includes some of the countries in the region, in 2001 under its "Everything But Arms" (EBA) initiative. Although not formally established, countries in the region have discussed a SADC FTA. In this paper, a multi-country, computable general equilibrium model to analyze the impact of trade liberalization on countries, sectors, and factors was used. To focus on trade flows among countries in Southern Africa, the model included seven countries in the region (South Africa, Botswana, Malawi, Mozambique, Tanzania, Zambia, and Zimbabwe), the rest of SADC, the rest of Sub-Saharan Africa, and five other aggregate regions (the EU, High-income Asia, Low-income Asia, North America, and the rest of the world). First, the FTA between South Africa and the EU was analyzed. Then, consideration was given to how the rest of Southern Africa might respond: (1) by enforcing a SADC FTA; (2) by exploiting the advantages of unilateral access to the EU in addition to a SADC FTA; and (3) by entering an FTA with the EU and other SADC countries. It was found that trade creation dominates trade diversion for the region under all FTA arrangements. Some SADC countries were slightly hurt by the FTA between the EU and South Africa while others slightly gain. Overall, the agreement was not a beggar thy neighbor policy. Unilateral access to the EU is more beneficial, in terms of real GDP and real absorption, for SADC countries than a SADC FTA. However, reciprocal reforms, under and EU-SADC FTA dominate unilateral

access to the EU because they require more structural adjustment. Finally, it was found that South Africa is not large enough to serve as a growth pole for the region. Access to EU markets provides substantially bigger gains for the other SADC countries than access to South Africa.

THIERFELDER, Karen E., Professor, Nielsen, Chantal Pohl and Robinson, Sherman, “Genetically Modified Food, Global Trade Patterns, and Developing Countries,” *Agriculture and the New Trade Agenda*, (edited by Merlinda Ingco, L. Alan Winters), Cambridge: Cambridge University Press, forthcoming.

This paper analyzed price, production, and trade consequences of changing consumer preferences regarding the use of genetically modified organisms (GMOs) in food production. The analytical framework used was an empirical global general equilibrium model, in which the entire food processing chain—from primary crops through live-stock feed to processed products—was segregated into genetically modified (GM) and non-GM lines of production. This model was used to analyze the implications of widespread use of genetically engineered crops in some regions whilst consumers in Western Europe and High-income Asia adopted a critical attitude toward GM foods. Two different representations on consumer preference changes were illustrated: (1) a change in price sensitivity: i.e. consumers demand is less sensitive to a decline in the price of GM foods relative to non-GM varieties, and (2) a structural demand shift: for a given price ratio consumers simply demand less of the GM variety relative to the non-GM variety.

This analysis found that developing countries adjust their trade patterns in response to preference changes in important trading partner countries. Non-GM varieties are diverted to GM-critical regions while GM varieties are sold to countries in which consumers are not sensitive to GM content. Furthermore, the development of segregated GM and non-GM food creates a potential niche market for producers if the non-GM characteristics can in fact be preserved and verified throughout the marketing system at reasonable costs.

THIERFELDER, Karen E., Professor and Robinson, Sherman, “Trade and Tradability: Exports, Imports, and Factor Markets in the Salter-Swan Model,” *Economic Record*, Vol. 79 No. 244, pp. 103-111.

The Salter-Swan model was extended to include both factor markets and semi-traded goods. In our model, changes in relative factor prices depended on changes in world commodity prices, factor endowments, and the trade balance. In contrast, only changes in world commodity prices affected factor prices in the neoclassical trade model. The inclusion of semi-traded goods weakened the magnification effect in both the Stolper-Samuelson and Rybczynski theorems. When imports and domestic goods are poor substitutes, a characteristic of some commodities in developing countries, the sign of the Stolper-Samuelson theorem was reversed.

THIERFELDER, Karen E., Professor, and Robinson, Sherman, “Trade Liberalization and Regional Integration: The Search for Large Numbers,” *Australian Journal of Agricultural and Research Economics*, Vol. 46, No. 6 (December), pp. 1-20.

The debate over the impact of regional trade agreements (RTAs) on world welfare hinges upon (1) whether they are net trade creating or diverting and (2) whether they impede multilateral trade liberalization. Theoretical models are ambiguous on these issues. The insights from the vast body of empirical literature on multi-country CGE models which analyze RTAs were summarized in this paper. The empirical models overwhelmingly show that aggregate trade creation dominates trade diversion. Indeed, in many cases, there is no absolute aggregate trade diversion from an RTA. The models also indicate that welfare for all members—both current and potential—increases when RTAs expand. There are even bigger welfare gains when models incorporate aspects of “new trade theory” such as increasing returns, imperfect competition, technology transfers, trade externalities, and dynamic effects such as links between trade liberalization, total factor productivity growth, and capital stock accumulation. In this paper, the search for large numbers was broadened by suggesting an additional gain from RTAs. It was conjectured that increases in intra-sectoral trade arise from the fact that an RTA provides an expanded secure market, and permits firms to pursue economies of fine specialization. This Smithian specialization in production is another source of efficiency gains.

THIERFELDER, Karen E., Professor, Burfisher, Mary and Robinson, Sherman, "The Global Impacts of Farm Policy Reforms in OECD Countries," *American Journal of Agricultural Economics*, Vol. 84, No. 3 (August), pp. 234-241.

Multilateral negotiations on agricultural trade liberalization will require World Trade Organization (WTO) members, including Organization for Cooperation and Development (OECD) countries, to improve market access and to reduce domestic support and export subsidies. In this paper, the effects of agricultural policy reform by three OECD members who are major economies in world agricultural trade—the United States, the European Union (EU), and Japan—were analyzed. A multi-country computable general equilibrium (CGE) model with detailed treatment of the agricultural trade and domestic policies in OECD countries was used. The framework took into account the differences in production impacts among traditional, commodity-linked production subsidies and other types of domestic subsidies that recently have become more important in countries' farm support programs. The operational features of farm support programs were captured, allowing some domestic subsidies to insulate producers from market price changes while treating other payments as fixed, lump sum subsidies. When domestic policies insulate producers from market price signals, they dampen production responses to market access reforms in the domestic economy and to reforms in both partner countries. The study found that this linkage leads to dramatic reductions in a country's farm program costs when another country eliminates its support unilaterally. Given the links among domestic support programs in OECD countries, it was also found that multilateral reform leads to smaller output adjustments than unilateral reform.

THIERFELDER, Karen E., Professor, Burfisher, Mary, and Robinson, Sherman, "Developing Countries and the Gains from Regionalism: Links between Trade and Farm Policy Reforms in Mexico," *American Journal of Agricultural Economics*, Vol. 84, No. 3 (August), pp. 736-748.

A multi-country computable general equilibrium (CGE) model with agricultural policy details was used to simulate the effects of the North America Free Trade Agreement (NAFTA). It was found that Mexico gains from NAFTA only when it also removes domestic distortions in agriculture. In that case, agriculture can generate allocative efficiency gains large enough to offset the terms of trade losses that arise because Mexico has higher initial tariffs than its NAFTA partners. When an RTA forces a developing country to reform its domestic distortions that are linked to trade restrictions, it becomes a building block to multilateralism.

Presentations at Professional Meetings and Conferences

BAKER, Matthew J., Assistant Professor, "The Customary Gender Division of Labor," American Economic Association, Washington, D.C., January 2003.

BAKER, Matthew J., Assistant Professor, "The Customary Gender Division of Labor," University of Connecticut/Wesleyan University Joint Research Conference, May 2003.

CUNNINGHAM, Brendan M., Assistant Professor, "A Theory of Broadcast Media Concentration and Commercial Advertising," Federal Communications Commission (FCC) Broadcast Media Working Group Seminar, Washington, DC, 2 June 2002.

CUNNINGHAM, Brendan M., Assistant Professor, "The Distributional Heterogeneity of Growth Effects: Some Evidence," Growth and Business Cycles in Theory and Practice Conference, University of Manchester, Manchester, England, 20 June 2002.

CUNNINGHAM, Brendan M., Assistant Professor, "Faculty: Thy Administrator's Keeper? Theory and Evidence," Villanova University, Villanova, PA, 22 November 2002.

CUNNINGHAM, Brendan M., Assistant Professor, "Financial System Regulatory Policy and Macroeconomic Performance: a General Equilibrium Analysis," Financial Markets, Business Cycles, and Growth Conference, University of London, London, England, 14 March 2003.

GOODMAN, Rae Jean B., Professor, "Integrating Growth into the Principles Course," AP Economics: Strategies to Improve Instruction at Fourth National Conference (sponsored by E. Angus Powell Endowment and the Federal Reserve Bank of Richmond), 6-8 October 2002.

McCOSKEY, Suzanne K., Associate Professor, "Panel Data Tests for a Common Break Point in a Cointegrated Regression: An Application of Bootstrapping Critical Values for Non-Stationary Processes," Seventh Annual Conference on Econometric Modeling for Africa, Kruger National Park, South Africa, July 2002.

SCHMITT, Pamela M., Assistant Professor, and SWOPE, Kurtis J., Assistant Professor, "Multi-Period Rent-Seeking with Expenditure Carry-Over: Theoretical and Experimental Evidence," Southern Economic Association, New Orleans, LA, November 2002.

SCHMITT, Pamela M., Assistant Professor, and STOCK, Melanie J., Second Lieutenant, (USMC), "Horizontal and Vertical Product Differentiation: Theory and Evidence from the Minneapolis Retail Gasoline Market," Southern Economic Association, New Orleans, LA, November 2002.

SWOPE, Kurtis J., Assistant Professor, "Economies of Scale for Charitable Organizations? Theory and Evidence," Southern Economic Association, New Orleans, LA., November 2002.

THIERFELDER, Karen E., Professor, Burfisher, Mary E. and Robinson, Sherman, "The 'New Regionalism' Debate" Agriculture and the WTO: Where are we Heading? Conference sponsored by the International Agricultural Trade Research Consortium, Capri, Italy, 24-26 June 2003.

THIERFELDER, Karen E., Professor, Burfisher, Mary E. and Robinson, Sherman, "The Effects of an FTAA on Agricultural Trade in the Western Hemisphere," Inter-American Development Bank: Conference on Agricultural Liberalization and Integration: What to Expect from the FTAA and the WTO, Washington, D.C., October 2002.

THIERFELDER, Karen E., Professor, Burfisher, Mary E. and Robinson, Sherman, "The 'New Regionalism' Debate," International Finance and Economics Society Workshop, Central Michigan University, Mount Pleasant, MI, 6-8 June 2003.

THIERFELDER, Karen E., Professor, and Robinson, Sherman, "Trade and the Skilled-Unskilled Wage Gap in a Model with Differentiated Goods," Midwestern International Economics Meetings, Notre Dame University, South Bend, IN, 18-20 October 2002.

WHITEHEAD, John R. Midshipman 1/C, (USN), and McCOSKEY, Suzanne K., Associate Professor, "The Price is Wrong: An Analysis of the Contributing Factors to Deviations in the Law of One Price," Eastern Colleges Science Conference (ECSC), Ithaca, NY, April 2003.
