

**Department of Agribusiness and Applied Economics**

**North Dakota State University**

**January 1 to December 31, 2003**

**Annual Report**

**The Mission of the Department of Agribusiness and Applied Economics**

The mission of this Department is to provide objective economic analysis to support informed decision making in areas of resource allocation, business management, and public policy for the people of North Dakota and beyond. Faculty and staff shall provide high-quality education programs for undergraduate and graduate students and for audiences across the state reached through University outreach efforts.

*from:*

*Departmental Rules of Governance*

*September 26, 2000*

<http://www.ext.nodak.edu/homepages/aeddept/minutes/Rules-of-Governance.htm>

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## **Introduction and Departmental Overview**

The Department of Agribusiness and Applied Economics strives to improve public and private decision making through teaching, research, and outreach activities soundly based on economic science.

Teaching programs include offering undergraduate majors in Agribusiness, Agricultural Economics, and Economics. A graduate M.S. degree is offered in Agribusiness and Applied Economics with areas of concentration in applied research, agribusiness, transportation, and natural resource management. A new M.S. degree was initiated in the fall of 2003 in International Agribusiness, a program offered jointly with l'École Supérieure d'Agriculture of Angers, France. The Department is involved in four Ph.D. programs: Transportation and Logistics, Food Safety, Environmental and Conservation Sciences, and Natural Resource Management.

Research projects resulted in 15 journal articles and 30 departmental publications in 2003. Topics ranged over a variety of production, marketing, and economic development topics relevant to the state and nation. The Department generated new extramural funds totaling \$1,176,412 in 2003.

Extension activities included service to North Dakota citizens through cooperative education programs, development and extension of analytical tools for farmers developing optimal responses to the new 2002 Farm Bill, community economic development projects, and marketing, management and financing workshops for agricultural producers and Extension staff.

Additional information about the Department and its associated research and outreach Centers can be found at:

The Department of Agribusiness and Applied Economics at North Dakota State University:

<http://www.ext.nodak.edu/homepages/aeddept/index.html>

The Center for Agricultural Policy and Trade Studies:

<http://www.ag.ndsu.nodak.edu/capts/>

The Quentin Burdick Center for Cooperatives:

<http://www.ag.ndsu.nodak.edu/qbcc/>

The North Dakota State Data Center:

<http://www.ndsu.nodak.edu/sdc/>

# **I. GOALS/ACCOMPLISHMENTS CURRENT YEAR (COLLEGE/UNIT)**

## **A. DISSEMINATION - INSTRUCTION AND STUDENT SUCCESS**

### **1. Teaching Initiatives**

Teaching initiatives in 2003 primarily consisted of further refinements in the department's courses and programs of study. Faculty continued to participate in NDSU's Faculty Institute for Excellence in Learning (FIEL). The FIEL program emphasizes techniques involving active learning, cooperative learning, and problem-based learning for the improvement of student learning.

### **2. Incorporation of Technology in Teaching**

The Department continues to adopt new technology to enhance teaching. All classes are available to students via BlackBoard. The mix of webpages, downloadable files, and other features of web-based delivery vary by instructor.

Cole Gustafson continues to improve the web-based format for ECON 202 (Principles of Macroeconomics). One section of ECON 202 was completely online in spring, 2003. Cheryl Wachenheim completed her distance education delivery version of AgriSales, which was available for the first time in spring 2003. The course was delivered to Dickinson State University. Enrollment in the DSU course included foreign students participating in the course from their home countries.

The Department's internet site continues to be updated with reports of student activities. New additions to the OnLocation site this year include reports from the NAMA team during the competition in Kansas City and daily entries from the students participating in this year's summer exchange program with the École Supérieure d'Agriculture in Angers, France.

### **3. Advising Efforts**

Students are assigned individual advisors. A rotating schedule of assignments assigns three faculty to incoming freshmen and transfer students each year. Faculty retain the same advisees during the students' progress through their undergraduate programs unless students request changes. The number of advisees assigned to each faculty member averages 13 students. There were 164 undergraduate students listed as majors at the beginning of the fall 2003 semester.

Fall 2003 Advising Assignments

Advisor:	Freshmen	Sophomores	Juniors	Seniors	Graduate	Total
DeVuyst, C.	0	4	6	15	1	26
DeVuyst, E.	0	2	0	19	1	22
Gustafson, C.	0	4	3	7	2	16
Hearne, B	1	0	1	3	0	5
Herren, S.	0	2	2	9	0	13
Koo, W	0	0	0	0	2	2
Leitch, B.	1	2	14	10	0	27
Mack, L.	1	1	2	9	0	13
Nelson, B.	0	0	0	0	0	0
Nganje, W.	2	4	1	7	4	18
O'Relley, E.	1	1	2	8	0	12
Sarmiento, C.	0	0	2	1	1	4
Saxowsky, D.	0	0	0	0	0	0
Shultz, S.	0	1	0	1	1	3
Wachenheim, C.	0	3	0	4	0	7
Wilson, W.	0	0	0	8	4	12
Total	6	24	33	101	16	180
Change from 2002	-24	-10	-8	35	--	-7

In order to assess the quality of undergraduate advising, an evaluation was conducted in the spring 2003 semester. Feedback was received from 77 current students in the program providing comments on 11 faculty advisors. Results indicated divergence in students' perceptions of advising effectiveness by the different faculty. Aggregated results for the Department are listed below:

My Advisor is well prepared to help me with:	Agree Strongly	Agree	Neutral	Disagree	Disagree Strongly
Course selection	47	23	4	1	2
Career planning	42	18	13	2	2
University life	37	25	13	0	2
My advisor cares about me	49	19	4	4	1
I would recommend my advisor to others	50	16	5	1	5
Total	225	101	39	8	12

## 4. Curriculum Development

### Enrollment Trends

Student FTEs generated by level and total, AY94-AY04.

Year	100 (incl 201 & 202)	200 (excl 201&202)	300	400	600 & 700	Total FTEs
AY94	2.09	1.03	1.54	0.88	0.45	6.68
AY95	1.86	1.16	1.77	0.85	0.50	6.87
AY96	2.73	1.18	1.74	1.08	0.71	7.89
AY97	2.28	1.39	1.85	0.72	0.45	7.17
AY98	2.58	1.07	1.95	0.80	0.72	7.37
AY99	2.44	1.44	2.17	0.93	0.79	8.16
AY00	2.76	1.14	2.07	1.17	0.39	8.04
AY01	3.80	1.30	2.82	1.18	0.76	10.12
AY02	7.16	1.24	4.05	1.29	0.74	15.08
AY03	7.33	1.03	4.18	1.22	0.88	14.63
AY04	8.08	1.30	3.53	1.30	1.19	14.96

#### Notes

- AY04 values do not include summer session, 2004
- Student FTEs are reported by academic (fall semester through summer terms) rather than calendar year.

The student FTEs reported in the table illustrate both the increase in student FTEs generated by the department (increasing 124% between AY94 and AY04) and a change in the composition of courses delivered. Over half of the student FTEs now generated are in the lower level principles classes, as opposed to about 30% in these classes at the beginning of the period.

Recognizing that data are not complete for AY04, trends through AY03 indicate a rapid enrollment increase of 287% in the principles courses. Enrollment has been stable in the department's 200 level classes (primarily introductory courses in agribusiness and agricultural economics serving both our majors and students from the College). Following growth in AY02 and AY03, there was a drop in FTEs generated in the AY04 300 level classes.

- A drop of about 0.28 FTEs resulted from only offering ECON 324 once (instead of twice) during the fall semester. This change resulted from teaching an additional ECON 400 class in the fall to benefit our Economics majors.
- Student numbers fell in from 59 to 38 in AGEC 339 from AY03 to AY04.

Course enrollments at the 400 level have increased about 48% since AY94. This increase has been due to the growing popularity of some of the agribusiness courses (e.g., AGECEC 420), as well as minor gains from teaching senior level Economics courses.

Graduate FTEs generated increased 64% between AY94 and AY04. This increase resulted from increasing student numbers, teaching of several of the graduate courses in the department rather than in the former Economics department (e.g., AGECEC 741), addition of one credit modules covering advanced topics in econometrics, and advising associated with both the new International Agribusiness M.S. degree and the new NDSU Ph.D. programs with which departmental faculty are involved.

Tuition generated versus Appropriated Funds for AY04 Student Credit Hours

	SCHs	Tuition per credit hour	Tuition generated
Undergraduate SCH	10,131	\$176.15	\$1,784,576
Graduate SCH	421	\$175.36	\$73,827
Total	10,552		\$1,858,402
Department Appropriated Funds for Teaching			\$521,448
Department Benefit/Cost Ratio			\$3.56/\$1

Notes

- Undergraduate tuition estimates are based on an equal weighting of North Dakota resident tuition and Minnesota reciprocity tuition rates. Graduate tuition reflects North Dakota resident rates. Both numbers probably underestimate actual tuition generated given a greater nonresident population of students taught by the department.

*New or Modified Courses:*

Courses taught and FTEs generated for AY04 year are listed in Appendix A.

Only one new course was offered during the year: ECON 491 (Economic Education). This course enrolled senior majors and discussed outlets for applying economic education through the media, through educational institutions, and directly to policy makers. Students each presented at least one class period of Economics at Fargo North, Fargo South, and at Moorhead High School.

Faculty loads, AY04.

<i>Instructor</i>	<i>FTEs Generated</i>	<i>Appointment</i>	<i>Overload</i>
Beladi, H*	0.06	0.00	0.06
Bitzan, J*	0.06	0.00	0.06
Clarke, C*	0.02	0.00	0.02
Devuyst, C	0.42	0.30	0.12
Devuyst, E	0.72	0.35	0.37
Gibb, H*	0.26	0.00	0.26
Gustafson, C	0.59	0.20	0.39
Hearne, R	0.21	0.10	0.11
Herren, R	1.36	1.00	0.36
Jin, Hyun*	0.04	0.00	0.04
Kim, M*	0.21	0.00	0.21
Koo, W	0.29	0.10	0.19
Lambert, D	0.25	0.25	0.00
Leitch, B	3.22	1.00	2.22
Mack, L	2.97	1.00	1.97
Nelson, W	0.40	0.45	-0.05
Nganje, W	0.45	0.50	-0.05
O'Relley, E	1.66	1.00	0.66
Sarmiento, C	0.03	0.30	-0.27
Saxowsky, D	0.24	0.25	-0.01
Shultz, S	0.58	0.20	0.38
Skripnitchenko, A*	0.01	0.00	0.01
Tolliver, D*	0.01	0.00	0.01
Wachenheim, C	0.68	0.40	0.28
Wilson, W	0.40	0.32	0.08
<b>Totals</b>	15.16	7.72	7.44

\* - Indicate faculty from other units or nonteaching faculty or students teaching courses in Agribusiness and Applied Economics.

## 5. Accreditation or Other Reviews

No accreditation or other reviews were conducted during 2001-2002.

## **6. Activities in Student Recruitment/Retention, Enrollment Management, and Other Student Activities**

### Student Recruitment/Retention

#### *Undergraduate Students*

New efforts to attract and retain majors will be undertaken in AY05 through adoption of cohort scheduling and the assignment of one of our best undergraduate advisors, Becky Leitch, to be solely responsible for Freshman advising starting June 2004.

#### *Graduate Students*

New graduate student numbers for the calendar year 2003 term totaled twelve (1 in spring 2003, 11 in the fall). This number is close to the long-term average of new graduate students. Recruitment in 2003 included personal contact, recruitment of French students from ESA for the new International Agribusiness M.S. program, and site visits to Grad School fairs (University of Minnesota (St. Paul and Morris)).

#### *Enrollment Management*

Enrollment management records are maintained by our office support staff. Recruitment rather than retention and management seem to be more important student issues for the department.

#### *Other Student Activities*

*Clubs* – The primary clubs for agricultural economics majors are the Agribusiness Club, the student chapter of NAMA, and Collegiate Farm Bureau. The Agribusiness Club hosts many fundraising and social events during the year. An annual award banquet in the spring honors both outstanding undergraduates and leaders in the state's agribusiness industry. The NAMA chapter works all year in developing a marketing plan for an innovative agribusiness product. The chapter's efforts culminate in presentations at the annual NAMA competition. Lack of faculty time due to other teaching commitments this year led to the course being taught for the second time by Collin Clark, a member of the regional professional NAMA chapter.

*Scholarships* - The Department of Agribusiness and Applied Economics has one of the most successful scholarship programs on campus, awarding approximately \$40,000 each year to students in our different programs.

## **7. Employment of Graduates**

Both graduate and undergraduate students from the Department continue to encounter excellent job prospects. Long term trends indicate approximately 30% of the graduating seniors return to family farming. The majority of the remaining graduates find employment with firms such as John Deere, ADM, Cenex, Farm Services Administration, and other

agribusiness companies. The average entry level salary of the undergraduates, excluding those returning to farming, was over \$30,000.

## **8. Senior Professors Teaching Freshman and Transfer Students**

There is no departmental policy emphasizing the teaching of freshman and transfer students by senior faculty.

## **9. Summer School Activities**

Since assuming responsibility for the Economics program in July 2001, the Department now offers several summer courses. Courses offered during the summer of 2003 include ECON 201 (Principles of Microeconomics), ECON 202 (Principles of Macroeconomics), and ECON 324 (Money and Banking). In addition, faculty are involved in summer teaching through the Food Safety Institute (SAFE 470/670 and 490/690) and the summer study abroad program in France.

Summer graduate school efforts during the summer are focused on advisement of graduate students and overseeing thesis research.

## **10. Awards and Recognition of Faculty/Students**

The following faculty awards were received during calendar year 2003:

- Dr. Cheryl DeVuyst. Food Distribution Research Society Presidential Award for Excellence in Research and Communication for Outstanding Published Article in Journal of Food the Distribution Research Society, 2002-2003.
- Dr. Won Koo. The 45<sup>th</sup> NDSU Faculty Lectureship Award, April 8, 2004
- Dr. Won Koo. Chamber of Commerce Distinguished Professor, August, 2003.
- Kathleen Tweeten. Bismarck-Mandan Convention and Visitors Bureau VIP award recipient

## **11. Extension Service Teaching**

*Highlights of Extension Service Teaching Programs in CY03:*

### **Crop Insurance Conference**

This conference provides information on the latest changes in the industry. Insurance agents may receive continuing education credits for this conference.

### **Agricultural Lenders Conferences**

Conferences were held for agricultural lenders in four locations across the state. Approximately 250 lenders from North Dakota, Minnesota and South Dakota attended.

### **Devils Lake Round-up**

The Round-up is a two-day workshop and trade show that has been running for nearly twenty years. Extension economists made presentations on key features of the 2002 Farm Bill and cropping considerations for 2003.

**Cow-Calf Schools (Minot, Ellendale, Carrington)**

These were one-day schools covering management and marketing of beef cattle.

**International Crop Expo in Grand Forks**

This is a two-day crop show and educational conference held at the Alerus Center.

**In-service training for county agents**

Extension economists continue to provide in-service training for all of the county agricultural agents. Primary focus in CY02 was on the 2002 Farm Bill.

**Marketing Club Facilitation**

Extension economists continue to provide necessary state support for the 43 Marketing Clubs throughout North Dakota.

**Carrington Irrigation Workshop**

This workshop was for beginning and potential irrigators. I discussed the costs of irrigation investment as well as the cost and returns for various crop rotations under irrigation.

**The Quentin Burdick Center for Cooperatives**

QBCC continues to offer executive training programs for the New Generation Cooperatives. Approximately 150 directors and CEOs, representing 20 cooperatives from 15 states have attended these programs. These programs have focused on governance, strategic planning and financial analysis and decision-making, director responsibilities and evaluation, and audit committee responsibilities. Evaluations have been very positive and later feedback indicates that many cooperatives are putting into practice the concepts and tools presented at the programs.

**Computer Accounting for Farm, Home, and Business**

Seventeen workshops on accounting and financial management were presented at various sites across North Dakota.

**Finpack Farm Financial Management**

Two two-day Finpack farm financial management computer workshops were conducted in 2003. Andy Swenson also presented in-class instruction on Finpack to students enrolled in AGE 420, the department's capstone course in farm management.

**Tax Management for Ag Producers**

The program was presented via interactive video to 10 sites in ND in 2003.

**Community Strategic Planning/Facilitation**

Extension Community Development specialist worked with planners and decision makers in various counties and towns around North Dakota to develop resource assessments, strategic plans, and identify funding sources for research and outreach to meet community needs.

## **Entrepreneurship and Business Retention and Expansion**

Educational materials were prepared and presented addressing Branding North Dakota, Agritainment and other farm and ranch recreation enterprises, Youth Entrepreneurship, and Marketplace of Ideas.

## **B. RESEARCH/SCHOLARSHIP**

*The mission of this unit is to provide objective economic analysis and to support informed decision making in areas of resource allocation, business management, and public policy for the people of North Dakota and beyond (from the Department's mission statement adopted February 26, 1992).*

In addition to contributing new knowledge, economics research is essential to the maintenance of effective and relevant educational and outreach efforts. Individual faculty members are encouraged to develop research programs in their areas of specialization to increase the value of their contributions to the people of North Dakota.

### **1. Highlights of Research and Scholarly Activity (Calendar year 2003)**

Departmental research addresses a wide variety of issues important to American producers and consumers:

#### **Biotechnology**

- Several projects addressing genetically enhanced crops added a research base to debates surrounding the release of GE wheat. Wilson and Dahl analyzed testing and segregation strategies, concluding that a logistics system based on testing and segregation can efficiently assure buyers of acceptable GE tolerance levels at low cost (between 0.5 and 1%).
- DeVuyst and Koo have expanded their world wheat model to incorporate the market effects of various adoption and nonadoption strategies by producers around the world, quantifying both price effects and changing trade patterns resulting from GE wheat introduction.
- In an exciting new application of biotechnology, Eric DeVuyst, Marc Bauer, Dave Lambert and Larry Leistritz have initiated research to base cattle feedlot management on animal genetics. The research exploits newly available data demonstrating linkages between genotype, feed conversion, and carcass grading. The results of the research could encourage widespread adoption of genetic testing and significantly improve feedlot profitability.

#### **International Trade**

- Research conducted by Bill Wilson and his students and staff on price transparency, price discrimination, and Canadian rail rates and legislation contributed to the U.S. Department of Justice decision in favor of the ND Wheat Commission leading to anti-dumping fines on imports of Canadian spring wheat.
- Won Koo and his CAPTS staff evaluated the impacts of exchange rates on U.S. agricultural competitiveness in world markets. Since a quarter of U.S. production is exported, understanding of factors most important in improving U.S.

competitiveness is vital. Exchange rates were found to be one of the major factors affecting U.S. competitiveness. The results have been used by the North Dakota Congressional delegation to formulate policy alternatives enhancing U.S. competitiveness.

- An analysis conducted by Dr. Koo and CAPTS staff on the impact of CAFTA on the U.S. sugar industry quantified the impacts of relaxing tariff-rate quotas on Red River Valley growers and processors and contributed to the continued imposition of tariff-rate quotas on sugar imports.
- A survey by Koo of barriers to expanding trade of North Dakota farm products identified phytosanitary regulations and transportation costs as the leading problems facing North Dakota producers. Other barriers included labeling and other regulatory requirements, paperwork load, and cultural and language difficulties. Strategies are suggested for improving exporter access to new foreign markets.

### **Variety Development**

- Markets for agricultural products may be inefficient when signals do not adequately reflect product characteristics important to market participants. Lambert and Wilson developed a procedure to derive the value of different varieties in meeting buyer demands. Compared to Russ, popular varieties Oxen, Grandin, Butte 86, Amidon, 2375, Reeder, Alsen, Keene, Parschall, and Gunner imposed added costs to processors ranging from 1.1 to 4.9% to meet specified levels of absorption, peak time, and mix tolerance. Farmers adopt varieties based on agronomic traits, which may differ in end use traits preferred by processors. The research underscores the need for plant breeders, producers, and end users to collaborate on variety development.
- In another approach to wheat variety valuation, Dahl, Wilson, Johnson, and Njanje developed a model to value tradeoffs for grower and end-user characteristics. The model captured effects of variability in agronomic, quality, and economic variables. Empirical results indicate two experimental varieties provide improvements in grower and end-use value over most current varieties. An alternative risk adjusted portfolio model indicated similar results, yet permits simultaneous consideration of correlation between grower and end-use values.

### **The Farm Economy**

- Farm efficiency and solvency varies widely among producers. Using data from the North Dakota Farm and Ranch Business Management Program, Lambert and a graduate student found that farms efficient in production consistently reported superior solvency indicators. Returns on assets were similarly positively influenced by adoption of technological innovation by the sample farms.
- Annualized yields with more intensive cropping (IC) systems tend to be greater than those of spring wheat-fallow (SW-F). However, long-term economic effects of tillage system and fertilization may differ. In this study by Eric DeVuyst, two dryland cropping systems in North Dakota were evaluated. An IC rotation (spring wheat -winter wheat –sunflower) and a SW-F rotation were studied. Tillage systems included conventional-till (CT), minimum-till (MT), and no-till (NT). Nitrogen rates varied across plots. The IC system generated higher profits than the SW-F system,

but the IC profits were more variable. Within the IC system, MT generated higher profits than corresponding N-treatments under CT and NT, but MT profits were more variable. Of the N-rates evaluated, the largest N-rates generated the largest profits. The dryland IC system with MT and NT was more profitable than the best SW-F system using CT for this location. Stochastic dominance analyses revealed that the SW-F system and IC system CT treatments were economically inefficient when compared to the IC system with MT and NT.

### **North Dakota**

- North Dakota ranks fifth nationally in terms of population percentage age 65 or older. By 2020, 23% of the state's population will be over 65. Medicaid costs have soared, now consuming approximately 18% of the state's budget. At the request of the North Dakota legislature, Dr. Rathge, in collaboration with the Center for Rural Health, conducted surveys to estimate current and future demand for long-term elderly care and to identify policy recommendations to deal with this aging problem. Dr. Rathge recommended program initiatives and tax incentives for home-based services to reduce the state's burden in providing long term care.
- Larry Leistritz and his staff examined the local socioeconomic impacts of new agricultural processing plants in four communities and new or expanded manufacturing and/or exported services facilities in three other communities. This information was compared to economic trends in communities with no new developments. Improved job opportunities and enhanced incomes were generally seen as major positive effects of each of the new economic development initiatives. Aside from some management and engineering positions, most of the new jobs appeared to represent employment opportunities for area workers. Residents' incomes were enhanced both by the plants' jobs and payroll and by increased incomes for area farmers. Local leaders indicated community-based plants had stabilized the local economy and population. Comparison of population trends in the development and control communities supported these claims.

## 2. Grants/Contracts/Research

### Department of Agribusiness and Applied Economics – 2003 Grants and Contracts

<b>Investigator(s)</b>	<b>Agency</b>	<b>Project</b>	<b>Awarded</b>
Gustafson, Cole and Leistriz, F. Larry	ND Oilseed Council	Strategic Economic Feasibility and Impact of Biodiesel in North Dakota	<b>\$4,000</b>
Koo, Won	DHS/U.S. Customs Service	Analysis of U.S. Farm and Trade Policies	<b>\$750,000</b>
Landblom, Doug Wachenheim, Cheryl	Dickinson REC Agribusiness and Applied Economics	Effects of Fat Supplementation Among Beef Cows on Post Calving Reproductive Performance, Calf Growth and Economics	<b>\$17,661</b>
Leistriz, F. Larry	ND Department of Agriculture	The Role of Agriculture in North Dakota	<b>\$5,000</b>
Leistriz, F. Larry	ND Farmers Union	The Role of Agriculture in North Dakota	<b>\$5,000</b>
Leistriz, F. Larry	DOI/ND Game and Fish Department	Time-Series and Cross-Sectional Analysis of Sportmen Expenditures, 1976-2002	<b>\$21,764</b>
Lougheed, Margaret, Nelson, William	City of Fargo	Child Care Cooperative Feasibility Study	<b>\$8,350</b>
Nelson, William Wachenheim, Cheryl	USDA/Michigan State University	Hybrid Striped Bass Aquaculture – Marketing	<b>\$22,487</b>
Rathge, Richard and Olson, Kay	DHHS/ND Department of Health	Prenatal Risk Assessment Monitoring System (PRAMS)	<b>\$87,300</b>
Rathge, Richard Gillispie, Mary Alice – Pharmacy Practice Ross, James – Information Technology Services	NDSU Development Foundation	Healthcare Information System for Refugees	<b>\$10,000</b>
Rathge, Richard	Annie E. Casey Foundation	North Dakota Kids Count 2003 Activities	<b>\$75,000</b>
Rathge, Richard	Annie E. Casey Foundation	Rural Great Plains Collaboration – Technical Assistance	<b>\$14,831</b>
Rathge, Richard	DHHS/NIH/NLM/Family HealthCare Center	Healthcare Information System for Refugees	<b>\$12,900</b>
Swenson, Andrew	USDA/Economic Research Service	Analysis of Income Variability and Stabilization	<b>\$25,000</b>
Swenson, Andrew Aakre, Dwight	USDA/RMA/Montana State University	Targeted Commodity Education and Information for Montana, North Dakota, South Dakota: South Dakota and Wyoming Producers	<b>\$18,180</b>

<b>Investigator(s)</b>	<b>Agency</b>	<b>Project</b>	<b>Awarded</b>
Tweeten, Kathleen	Ewing Kaufman Foundation	Mini-Society	<b>\$26,000</b>
Wilson, William	ND Grain Growers Association	Issues in Development and Adoption of GM Wheats	<b>\$20,000</b>
Wilson, William	USDA/ARS	Demand for Wheat Protein in International Markets	<b>\$40,000</b>
Wilson, William	ND Wheat Commission	Market Development Support	<b>\$15,000</b>
Agribusiness & Applied Economics Total:			<b>\$1,178,473</b>

### 3. Articles/Books/Publications (Calendar year 2003)

#### 2003 Research Publications

The following list of publications provides an overview of the breadth of research conducted by economists in the Department of Agribusiness and Applied Economics during 2003.

With the exception of the peer-reviewed journal articles and chapters in books, all of these papers can be viewed from the departmental publications website:

<http://www.ext.nodak.edu/homepages/aeddept/aemisc/publist.htm>

#### 2003 PEER-REVIEWED JOURNAL ARTICLES

1. Beladi, H., and C.C. Chao. "The Role of Export Subsidies in Balance-of-Payments Crises." *European Journal of Political Economy* 19:4(2003):875-884.
2. Beladi, H., and S. Marjit. "Possibility or Impossibility of Paradoxes in the Small Country Harris-Todaro Framework: A Unifying Analysis." *Journal of Development Economics* 72(1):387-400, Oct. 2003.
3. Flakerud, George, and Jean-Paul Nicoletti. "What French Farmers are Doing That May be of Interest to U.S. Farmers." *Journal of the American Society of Farm Managers and Rural Appraisers*, p. 19-25, 2003.
4. Gustafson, Cole R. "Biodiesel - An Industry Poised for Growth." *Choices*, August 2003, <http://www.choicesmagazine.org/current/2003-3-03.htm>.
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1. 2003 No. 527  
[Trends and Characteristics of Hunter and Angler Spending, North Dakota, 1981 through 2001](#), Bangsund, Dean A., F. Larry Leistriz
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[Strategic Use of Futures and Options by Commodity Processors](#), Bullock, David W., William W. Wilson, Bruce L. Dahl
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[2003 Outlook of the U.S. and World Wheat Industries, 2002-2012](#), Koo, Won W., Richard D. Taylor
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17. 2003 No. 511  
*The Role of Agricultural Processing and Farm Input Manufacturing in the North Dakota Economy*, Coon, Randal. C., F. Larry Leistritz
18. 2003 No. 510  
[U.S. Agricultural Trade with Latin American Countries and Effects of the Free Trade Area of the Americas on Specific Commodities](#), Mattson, Jeremy, and Won W. Koo
19. 2003 No. 509  
*Issues in Development and Adoption of Genetically Modified (GM) Wheats*, Wilson, William W., Edward L. Janzen, Bruce L. Dahl, Cheryl J. Wachenheim
20. 2003 No. 508  
*Results of the Rural Cass County Business and Services Preference Survey*, Hodur, Nancy M., Randal C. Coon, F. Larry Leistritz
21. 2003 No. 507  
[Resident and Nonresident Hunter and Angler Expenditures, Characteristics, and Economic Effects, North Dakota, 2001-2002](#), Bangsund, Dean A., F. Larry Leistritz  
[2003 No. 507-S \(24-Page Summary\)](#)
22. 2003 No. 506  
[The Effect of Food-Safety Related Information on Consumer Preference: The Case of the BSE Outbreak in Japan](#), Jin, Hyun J., Changyou Sun, Won W. Koo

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1. 2003 No. 193  
*Food Safety Risk Perception and Consumer Choice of Specialty Meats*,  
Nganje, William, Simeon Kaitibie

#### **2003 STAFF PAPERS:**

1. AAE 04001  
[\*Estimating the Contribution of the FARGODOME to the Area Economy\*](#),  
Hodur, Nancy M., Dean A. Bangsund, F. Larry Leistritz, John Kaatz
2. AAE 03006  
[\*Financial Analysis of Small Food Manufacturing and Retailing Businesses\*](#),  
Gustafson, Cole R.
3. AAE 03005  
[\*North Dakota Land Valuation Model\*](#), Aakre, Dwight, David M. Saxowsky,  
Harvey G. Vreugdenhil
4. AAE 03004  
[\*How an Online Course Compares\*](#), Wachenheim, Cheryl J.
5. AAE 03003  
*Rural Small Business Finance: Evidence from the 1998 Survey of Small  
Business Finances*, Gustafson, Cole R.
6. AAE 03002  
*North Dakota Lignite Energy Industry's Contribution to the State Economy for  
2002 and Projected for 2003*, Coon, Randal C., F. Larry Leistritz
7. AAE 03001  
*Results of the North Dakota Land Valuation Model for the 2003 Agricultural  
Real Estate Assessment*, Aakre, Dwight G., Harvey G. Vreugdenhil

#### **2003 BOOK CHAPTERS**

1. Johnson, D. Demcey, George K. Flaskerud, Richard D. Taylor, and  
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2. Leistritz, F. Larry. "Measuring the Economic Impact of Producer  
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## STATE DATA CENTER PUBLICATIONS

(North Dakota State Data Center, Department of Agribusiness and Applied Economics)

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2. Clemenson, Mandy and Richard Rathge. 2002. *2003 Informal Caregivers: 2002 Outreach Survey* (101pp.).
3. Clemenson, Mandy, Richard Rathge, Ramona Danielson, Sara Johnson, Jordyn Nikle, Steph Noehl, Kay Olson, Lindsey Bergeron, and Tammy Karlgaard. 2003. [\*Informal Caregivers: 2002 Phone Survey\*](#) (83pp.).
4. Danielson, Ramona, and Richard Rathge. 2003. *Regional Tobacco and Secondhand Smoke Survey: 2002* (69pp.).
5. Danielson, Ramona, and Richard Rathge. 2003. *Tobacco and Secondhand Smoke Survey of Administration, Faculty, and Staff, 2002: North Dakota State University* (42pp.).
6. Danielson, Ramona, and Richard Rathge. 2003. *Student Tobacco and Secondhand Smoke Survey, 2002: North Dakota State University* (50pp.).
7. Danielson, Ramona, and Richard Rathge. 2003. *Tobacco Awareness Campaign Evaluation for Administration, Faculty, and Staff, 2003: North Dakota State University* (14pp.).
8. Clemenson, Mandy, and Richard Rathge. 2003. *Tobacco Cessation Program Evaluation, 2003: North Dakota State University* (10pp.).
9. Olson, Kay, Ramona Danielson, and Richard Rathge. 2003. *Tobacco and Secondhand Smoke Survey, 2002: Richland County, North Dakota* (75pp.).
10. Olson, Kay, and Richard Rathge. 2003. *Student Tobacco and Secondhand Smoke Survey, 2002: North Dakota State College of Science* (47pp.).
11. Olson, Kay, and Richard Rathge. 2003. *Student Tobacco and Secondhand Smoke Survey of Administration, Faculty, and Staff, 2002: North Dakota State College of Science* (39pp.).
12. Karen Olson, and Richard Rathge. 2003. *2003 North Dakota Kids Count! Fact Book. North Dakota Kids Count!* (159pp.).

## C. OUTREACH

### 1. Professional Service

Several faculty members occupy national or regional positions in professional organizations. Cheryl DeVuyst serves on the American Agricultural Economics Association's Employment Services Committee, the Committee for Women in Agricultural Economics, is co-editor of the Committee's newsletter, and was selected to the Board of Directors of the Western Agricultural Economics Association. Eric DeVuyst is on the Advisory Board of the Hettinger Research and Extension Center. Stan Herren is the Director for Public Affairs for the Missouri Valley Economic Association. Larry Leistritz is Chair of Committee Assignments Task Force for the International Association for Impact Assessment. Richard Rathge is on the Board of Directors and the Advisory Committee of the Midwest Sociological Society, is on the Steering Committee of the National State Data Center

Program, and serves on the Development Committee of the Rural Sociological Society. Bill Wilson continues to serve as a Director of the Minneapolis Grain Exchange.

## **2. Alumni Events and Other Community-Related Activities**

Department faculty are active in agricultural fraternities and sororities, attend graduation, reunions, and honors banquets, and participate in agricultural shows and events in which College alumni are frequently present.

## **3. Fund-Raising Accomplishments**

The Department of Agricultural Economics offers the largest scholarship program on campus. Over \$40,000 was granted to students in Agricultural Economics this year. Coordination and judging of applicants is done by Becky Leitch. Departmental faculty generously provided financial support totaling approximately \$1,000 to several scholarships in early 2003 to offset poor returns from NDSU Development Foundation investments resulting in distributions substantially below the memorial scholarship amounts desired by the families of the donors.

Fund-raising for individual department-sponsored events, such as travel of the student NAMA chapter to the national competition in Kansas City in April, was conducted by students with organizational oversight by individual faculty members.

## **4. Other Outreach Activities**

Department faculty continue to provide talks, lead discussions, and provide media information to a variety of state and national requests.

## **D. SPECIAL INITIATIVES**

### **1. Cultural Diversity**

The Department reflects and encourages diversity. Cheryl DeVuyst, one of the department's three women faculty members, is active in national professional organization subcommittees promoting the role of women in agricultural economics. William Nganje is an active participant in the NDSU TOCAR effort. Assistant research professors in the Department come from Sierra Leone, Korea, and China. The new International Agribusiness M.S. program strengthens ties with France and the European Union to increase educational and research opportunities for faculty and students.

### **2. Affirmative Action/Equal Opportunity**

The department continues to stress equal access to advertised positions. Selections for interviews, hiring decisions, annual evaluations, and promotion and tenure decisions are based entirely upon merit.

### 3. Cooperation Programming/Interdisciplinary Efforts/Interinstitutional Activities

Below is a listing of multistate research projects in which departmental faculty were involved in 2003:

<b>Principal Investigator</b>	<b>Regional Committee/Title</b>
DeVuyst, Cheryl S.	NC-221, Agricultural Finance Markets in Transition
DeVuyst, Cheryl S.	W-1177, Enhancing the Competitiveness of U.S. Meats
DeVuyst, Cheryl S.	S-222, Fruit and Vegetable Marketing Innovations and Demand Assessment
DeVuyst, Eric A.	IEG-70/SERA-IEG-31, Economics and Management of Risk in Agriculture and Natural Resources

<b>Principal Investigator</b>	<b>Regional Committee/Title</b>
Gustafson, Cole R.	NC-221, Agricultural Finance Markets in Transition
Hearne, Robert	W-190, Water Conservation, Competition and Quality in Western Irrigated Agriculture
Koo, Won W.	S-287, Impacts of Trade and Domestic Policies in the Competitiveness and Performance of Southern Agriculture
Koo, Won W.	WCC-101, Assessing the Chinese Market for U.S. Agricultural Products
Lambert, David K.	NC-1003, Impact Analysis and Decision Strategies for Agricultural Research
Lambert, David K.	NCA-012, Agricultural Economics
Leistritz, F. Larry	NE-162, Rural Economic Development: Alternatives in the New Competitive Environment
Leistritz, F. Larry	NC-222, Impact of Technology on Rural Consumer Access to Food and Fiber Products
Leistritz, F. Larry	NE-1011, Rural Communities, Rural Labor Markets and Public Policy
Nelson, William C.	NCR-194, Improving the Management and Effectiveness of Cooperatively Owned Business Organizations
Nelson, William C.	NC-221, Agricultural Finance Markets in Transition
Rathge, Richard W.	NCA-013, Rural Sociology
Rathge, Richard W.	W-1001, Population Change in Rural Communities
Schultz, Steven D.	W-1133, Benefits and Costs of Natural Resources Policies Affecting Public and Private Lands
Wachenheim, Cheryl J.	WCC-072, Agribusiness Research Emphasizing Competitiveness
Wilson, William W.	NC-224, Economic Assessment of Value Added Products and Competitiveness of U.S. Grains and Oilseeds in Global Markets

#### **4. International Activities**

Faculty participated in many international activities this year. Cheryl Wachenheim continues to coordinate the university's involvement with the summer undergraduate program with the *Ecole Supérieure d'Agriculture* in Angers, France. Won Koo was invited to collaborate with faculty at two Chinese universities to establish joint teaching and research programs in agribusiness and international trade. Dave Lambert traveled to Angers, France in January 2003 to finalize details for creation of a new joint M.S. degree with *l'École Supérieure d'Agriculture* in International Agribusiness. The program was launched in the fall of 2003 with three French students and one domestic student (who

actually entered January 2004). Bill Wilson made presentations on wheat market differentiation and criteria for release of new wheat varieties in Argentina, grain procurement strategies in Tunisia, and discussed a variety of grain trade topics to NCI Trade Teams from Belgium, Peru, the EU, Japan, Italy, and Mexico.

## **5. Economic Development Efforts**

One of the primary missions of the department is to aid in economic development efforts in North Dakota. Several faculty members are directly involved in economic development as a major component of their job responsibilities. Many of the grants, publications, presentations, and workshops listed earlier in the annual report reflect these efforts. Larry Leistritz, Richard Rathge, and Kathy Tweeten have primary responsibilities in economic development. Kathy Tweeten was successful in achieving approval for the new Center for Community Vitality, an umbrella for numerous economic and business development activities in the state. She is serving as Director of the new Center. Cole Gustafson worked on several initiatives concerning ethanol and biofuel development for the state.

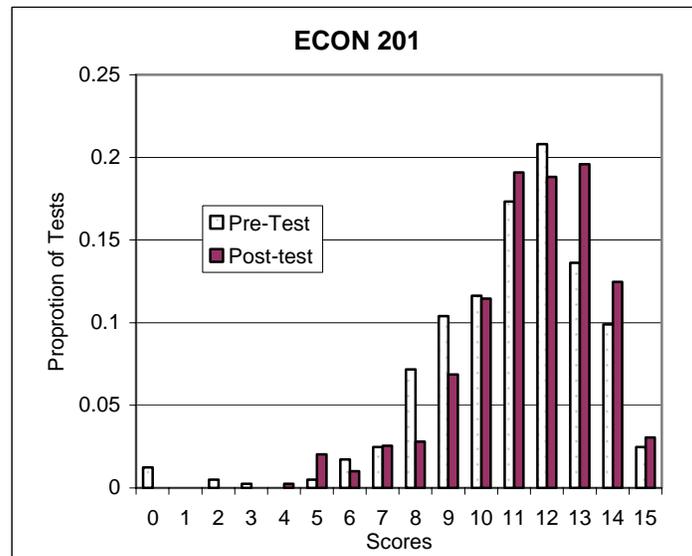
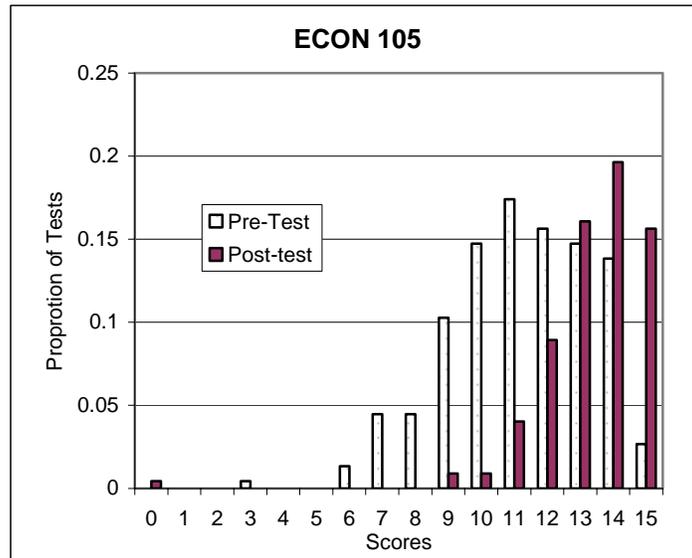
## **6. Assessment**

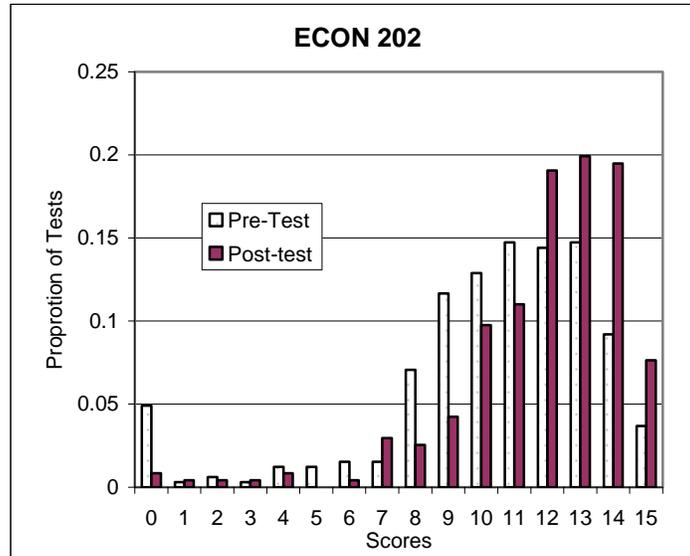
### Economic Principles Courses

Pre-and post-tests were administered during the fall 2003 semester to students in ECON 105 (Elements of Economics- a combined micro-macro course), ECON 201 (Principles of Microeconomics) and ECON 202 (Principles of Macroeconomics). The pre-test was administered the first day of the semester. Questions from the post-test were added to the students' final examinations in all courses. Questions for the exam were downloaded from the National Council for Economic Education website:

<http://www.ncee.net/cel/test/index.php>

Histograms of pre-and post-test scores are repeated below:





Summary statistics and t-test of comparison of means for the tests are:

	Pre-test	Post-test
<b>ECON 105. Elements of Economics</b>		
Number of tests graded	224	149
Average score	11.21	13.33
Mode Score	11	14
$H_0: \mu_{pre} = \mu_{post}$ $H_a: \mu_{pre} < \mu_{post}$	t = 5.003 (Prob = 0.0)	
<b>ECON 201. Principles of Microeconomics</b>		
Number of tests graded	404	393
Average score	10.92	11.45
Mode Score	12	13
$H_0: \mu_{pre} = \mu_{post}$ $H_a: \mu_{pre} < \mu_{post}$	t = 1.369 (Prob = 0.086)	
<b>ECON 202. Principles of Macroeconomics</b>		
Number of tests graded	326	236
Average score	10.34	11.81
Mode Score	12	13
$H_0: \mu_{pre} = \mu_{post}$ $H_a: \mu_{pre} < \mu_{post}$	t = 1.792 (Prob = 0.037)	

T-test results (t = 5.003) indicate the mean of student scores in ECON 105 improved at all levels of statistical significance between the pre- and post-tests. The increase in mean scores

was also significant in ECON 202 ( $t = 1.792$ , with an associated  $\alpha$  of 0.37). Although there was some improvement in mean and mode test scores in ECON 201, the improvement in mean scores from 10.92 to 11.45 was not statistically significant ( $\alpha$  equals 0.086 for the one-sided test).

Several explanations may apply for these assessment results:

1. Test questions included both micro and macroeconomics questions. Students in ECON 201 have not recently been exposed to macro concepts, hence improvements on the macro questions would not be expected. Students in ECON 202 presumably have taken micro, so would be expected to score well on these micro questions, with improvements in their response to the macro questions over the semester of ECON 202. ECON 105 students receive both micro and macro concepts, so would be expected to improve their responses to all test questions.
2. There was a significant drop in the number of students taking the pre- and post-tests in ECON 105 (-33%) and 202 (-28%). Students doing poorly on the pre-test may have dropped the class.

Additional test questions collected information on student major, previous exposure to economics, age, etc. However, test summaries did not include the student specific data to allow testing of relationships among these variables and student performance on the pre-test or on changes in scores between the beginning and end of the semesters.

## **7. Addressing Institutional Purposes**

Teaching – Departmental resources have been diverted to meet University objectives of developing graduate programs in transportation, food safety, and natural resource management. Additional resources have been allocated to providing distance education courses in Cooperatives, AgriSales and in Agricultural Law to students enrolled in other universities and to a small number of nontraditional distance learners.

Research – Research programs in international agricultural trade are well respected around the country. Several researchers continue to produce respected articles in nationally reviewed academic journals. Dr. Hamid Beladi, a Senior Research Professor working for the Center for Agricultural Policy and Trade Studies, is an eminent scholar in international trade. Dr. Beladi was recently ranked as the 91<sup>st</sup> most productive economist in the world (<http://student.ulb.ac.be/~tcoupe/update/authorsarticles.html> ). Dr. Beladi is a founding member of the International Economics and Finance Society and is the co-editor of the *International Review of Economics and Finance*. NDSU is enjoying a transitory national reputation that Dr. Beladi brings to the institution during his employment in the Department. Research of other non-tenure track researchers in the Center for Agricultural Policy and Trade Studies is appearing in a growing number of disciplinary journals.

Research important to the people of North Dakota is provided by Bill Wilson (addressing the introduction of genetically modified wheat), William Nganje (identifying costs associated with plant disease) Larry Leistriz (determining the local importance of agribusiness processing industry and the costs of invasive species to agricultural

production), and Steve Shultz (providing economic analyses of natural resource issues such as floodplain management).

Outreach/Extension – Extension is the quintessential model of the engaged university. Tim Petry has contributed to livestock economic analysis since his transfer to Extension in 2002. Involvement with agribusiness firms and groups by several of the faculty increase the opportunities for mutually beneficial engagement. Neither Larry Leistritz nor Richard Rathge receive Extension support, yet both conduct numerous applied research projects having a direct impact on local and state government decision making. Research-based outreach provided by Bill Wilson in grain markets, by Won Koo in agricultural trade and policy issues, and by Eric DeVuyst in farm management increase the profile of the department and the university in the state.

## **8. College/Unit Planning; Functions/Activities/Accomplishments**

Several meetings are held during the year to address needs in undergraduate and graduate programs. An intensive review of the department's course offerings was initiated in late 2003 in order to rationalize and improve departmental courses and programs of study.

### **E. Other Goals**

Goals continue to be to provide an excellent learning environment for our students, to conduct research useful to the state as well as gaining disciplinary recognition for the quality of research conducted by departmental faculty, and to provide outreach education to enable people in the state to make economically sound decisions in the private, public, and business endeavors.

## **II. COMMENTS**

*What each department's future plans are, future challenges and program strengths, as well as the overall unit.*

Teaching – We will continue to provide rigorous training in economics and agribusiness. The Department continues its commitment to focusing on agribusiness and trade as key areas of expertise. The M.S. program has had three extremely good years in terms of recruitment and funding of new students (2001-2 through 2003-4). The new International Agribusiness M.S. program represents an important contribution to meeting educational and research needs for the region while requiring few additional resources. Shrinking resources in transportation economics are reducing involvement in the new Ph.D. program in Transportation and Logistics.

Research – Continued emphasis on publication of research results in highly regarded disciplinary journals will increase the stature of the faculty publishing in these outlets, with subsequent benefits for the department and the university. In addition, there is an increasing perception that wide dissemination of departmental research through Department Reports available electronically will increase the impact of departmental programs on improving the quality of life for all North Dakota citizens. Continued pursuit of extramural funds is

essential to offset reductions in real terms in state support, as well as to increase resources available for faculty research and graduate programs.

Extension – Continued interaction between Extension economists and research/teaching faculty will improve the quality of the products delivered to people in the state, as well as improve the application of faculty research to real world problems.

*How each department makes use of assessment data in decision making within the framework of the institution's mission and purpose.*

Assessment of student math skills requires continual communication of instructors through the program of study to assure necessary skills are taught and/or reinforced in prerequisite classes. The decision to apply strict adherence to course prerequisites this year indicates departmental response to an assessed need to improve student quantitative skills.

Performance on the pre- and post-test economics tests administered this year reinforces student improvement in our principles courses, especially in ECON 105 and 202.

### III. APPENDIX. 2003-4 courses

#### Spring 2004

Instructor	Prefix	Course No	Title	Credits	Enrollment	Course Rating	Instructor Rating	FTEs
O'Relley, E	ECON	105	Quant. Econ	3	120	3.7	3.8	0.450
Gibb, H	ECON	105	Quant. Econ	3	69	3.4	3.6	0.259
Leitch, R	AGEC	150	Quant. Econ	2	23	4.9	4.5	0.058
Leitch, R	AGEC	201	Principles of Microeconomics	3	176	4.1	4.3	0.660
Mack, L	ECON	201	Principles of Microeconomics	3	168	3.6	3.6	0.630
Leitch, R	AGEC	201	Principles of Microeconomics	3	181	4.1	4.5	0.679
Mack, L	ECON	202	Principles of Microeconomics	3	97	3.5	3.6	0.364
Mack, L	AGEC	202	Principles of Macroeconomics	3	164	3.5	3.4	0.615
Gustafson, C	AGEC	202	Principles of Macroeconomics	3	150	4.1	4.4	0.563
Wachenheim, C	AGEC	244	Agric Mktg, Livestock Emphasis	3	108	3.6	3.2	0.405
Devuyst, C	AGEC	246	Agricultural Finance I	4	36	4.3	4.6	0.180
Devuyst, C	AGEC	246	Agricultural Finance I	4	23	4.3	4.6	0.115
Herren, R	ECON	324	Money&Banking	3	54	3.6	3.8	0.298
Herren, R	ECON	324	Money&Banking	3	49	4.0	4.3	0.270
Nganje, W	ECON	341	IntermedMicro	3	42	4.3	4.7	0.232
Herren, R	ECON	343	IntermedMacro	3	67	3.5	3.3	0.369
Kim, M	AGEC	344	Agricultural Price Analysis	3	36	3.5	3.5	0.199

Nganje, W	AGEC	346	Agricultural Finance II	3	29	4.3	4.6	0.160
Wachenheim, C	AGEC	350	AgriSales	3	31	4.3	4.5	0.171
Wachenheim, C	AGEC	350	AgriSales Online	3	9			0.050
Nelson, W	AGEC	374	Cooperatives	3	23	3.3	3.3	0.127
Nelson, W	BUSN	374	Cooperatives	3	7	3.3	3.3	0.039
Saxowsky, D	AGEC	375	Applied Agricultural Law	3	2	4.0	4.5	0.011
Saxowsky, D	AGEC	375	Applied Agricultural Law	3	2	4.0	4.5	0.011
Devuyst, E	AGEC	420	Integrated Farm/Ranch Mngmt.	3	36	4.4	4.7	0.199
Gustafson,C	AGEC	446	Agribusiness Finance	3	12	4.5	4.5	0.066
Clarke, C	AGEC	451	NAMA	2	6	4.9	4.4	0.022
O'Relley, E	ECON	461	Economic Development	3	17	4.3	4.5	0.094
Beladi, H	ECON	476	Monetary Theory and Policy	3	6	4.7	4.8	0.033
Berwick, M	ECON	472	Adv Logistical Analysis	3	0			0.000
Nelson, W	ECON	484	Agricultural Policy	3	43	3.5	3.6	0.237
Lambert, D	AGEC	491	Sem/Economics Education	1	4			0.007
Herren, S.	ECON	494	Evolution/Economic Ideas	3	2			0.011
DeVuyst, C	AGEC	496	Field Experience	3	2			0.011
Gustafson, C	AGEC	646	Agribusiness Finance	2	1	5.0	5.0	0.007
O'Relley, E	ECON	661	Economic Development	3	1	5.0	5.0	0.010
Beladi, H	AGEC	676	Monetary Theory and Policy	3	3	4.3	4.7	0.031

Koo	AGEC	711	Adv Top/Econ/Estimate/Demand Sys	1	1			0.003
Sarmiento, C	AGEC	711	Adv Top/Ec/Forecasting	1	5			0.017
Jin, Hyun	AGEC	711	Adv Top/Ec/Time Series Anal I	1	8	4.9	4.9	0.028
Jin, Hyun	AGEC	711	Adv Top/Ec/Time Series Anal II	1	4	4.7	5.0	0.014
Lambert, D	AGEC	739	Analytical Methods	1	8	4.3	4.3	0.014
DeVuyst, E	AGEC	739	Analytical Methods	3	8	4.0	4.0	0.042
Wachenheim, C	AGEC	744	Agbus I: Ag PR Mktg/Agbus Str	3	10	4.2	4.2	0.034
DeVuyst, C	AGEC	744	Agbus I: Ag PR Mktg/Agbus Str	3	10	3.7	3.7	0.034
Wilson, W	AGEC	744	Agbus I: Ag PR Mktg/Agbus Str	3	10	4.1	4.6	0.034
Gustafson, C	AGEC	797	Masters Paper	3	1			0.010
DeVuyst, E	AGEC	798	Masters Thesis	3	1			0.010
DeVuyst, C	AGEC	798	Masters Thesis	1	1			0.003
Hearne, R	AGEC	798	Masters Thesis	4	1			0.014
Shultz, S	AGEC	798	Masters Thesis	1	1			0.003
Gustafson, C	AGEC	798	Masters Thesis	3	1			0.010
Wilson, W	AGEC	798	Masters Thesis	1	1			0.003
Wilson, W	AGEC	798	Masters Thesis	6	1			0.021
Tolliver, D	AGEC	798	Masters Thesis	1	1			0.003
<b>Spr Total</b>								<b>7.942</b>

Fall 2003

Instructor	Prefix	Course No	Title	Credits	Enrollment	Course Rating	Instructor Rating	FTEs
O'Relley,E	ECON	105	Elements of Economics	3	116	3.4	3.4	0.435
O'Relley,E	ECON	105	Elements of Economics	3	121	3.5	3.4	0.454
Leitch, B	ECON	201	Principles of Microeconomics	3	223	4.1	4.4	0.836
Leitch, B	ECON	201	Principles of Microeconomics-Econ	3	224	4.1	4.5	0.840
Mack, L	ECON	202	Principles of Macroeconomics	3	165	3.7	3.5	0.619
Mack, L	ECON	202	Principles of Macroeconomics-Econ	3	164	3.8	3.9	0.615
Leitch, B	AGEC	220	World Agricultural Development	3	37	4.0	4.3	0.139
Devuyst, E	AGEC	242	Intro/Agricultural Management	4	40	4.4	4.7	0.200
Devuyst, E	AGEC	242	Intro/Agricultural Management	4	33			0.165
Devuyst, E	AGEC	242	Intro/Agricultural Management	4	20			0.100
Herren, R	ECON	324	Money & Banking	3	51	3.7	4.0	0.281
Lambert, D	AGEC	339	Quant Methods & Decision Making	3	29			0.160
Lambert, D	AGEC	339	Quant Methods & Decision Making	3	9	3.5	3.3	0.050
O'Relley, E	ECON	341	Intermediate MicroEconomics	3	39	3.9	4.0	0.215

Mack, L	AGEC	342	Farm & Agribusiness Management 2	3	23	2.8	3.1	0.127
Shultz, S	AGEC	347	Principles of Real Estate	3	19	3.6	3.1	0.105
Shultz, S	BUSN	347	Principles of Real Estate	3	79	3.6	3.1	0.436
Saxowsky, D	AGEC	375	Applied Agricultural Law	3	40	4.2	4.3	0.221
Wilson, W	AGEC	444	Crops Marketing	3	20	4.3	4.2	0.110
Wilson, W	AGEC	445	Agribusiness Industry Strategy	3	28	4.3	4.3	0.154
Wachenheim, C	AGEC	450	NAT Agrimarketing Assoc (NAMA) 1	1	10	4.3	4.3	0.018
Herren, R	ECON	465	Labor Economics	3	22	4.4	4.7	0.121
Koo, W	ECON	472	Adv International Economics	3	22	2.7	2.9	0.121
Hearne, R	ECON	482	Environmental Economics	3	7	4.0	4.3	0.039
Devuyst, C	AGEC	491	Sr Agribusiness Seminar	1	20	3.8	4.4	0.037
Nganje, W	AGEC	494	IS/Feasability Analysis	2	1			0.004
Leitch, B	AGEC	494	IS/Legal Issues	3	1			0.006
Devuyst, C	AGEC	496	Field Experience	2	3			0.011
Leitch, B	AGEC	496	FE/Agric Communication	3	1			0.006
Leitch, B	AGEC	496	FE/Agric Appraisal	1	1			0.002
Herren, R	ECON	665	Labor Economics	3	1	4.0	4.5	0.010
Koo, W	ECON	672	Adv International Economics	3	1	5.0	5.0	0.010
Shultz, S	AGEC	701	Research Philosophy	1	9	4.0	4.3	0.031

Koo, W	AGEC	710	Econometrics	3	14	3.9	3.9	0.146
Hearne, R	AGEC	741	Advanced Microeconomics	3	13	4.3	3.9	0.135
Wilson, W	AGEC	746	Agbus 11/AgFin/Comm Tra	3	9	4.2	4.1	0.094
Devuyt, C	AGEC	746	Agbus 11/AgFin/Comm Tra	3	9	3.7	4.0	0.094
Nganje, W	AGEC	746	Agbus 11/AgFin/Comm Tra	3	9	4.2	4.4	0.094
Bitzan, J	AGEC	771	Economics/Transportation Systems	3	6	4.3	4.6	0.063
Sarmiento, C	AGEC	790	SEM/Microeconomic Theory	3	1			0.010
Skripnitchenko, A	AGEC	790	SEM/Microeconomic Theory	3	1			0.010
Kim, M	AGEC	790	SEM/Microeconomic Theory	3	1			0.010
Wilson, W	AGEC	791	TTT/Spreadshet Dec Models	1	8			0.028
Hearne, R	AGEC	793	IS/Environmental Economics	3	2	4.0	4.5	0.021
Nganje,W	AGEC	797	Masters Paper	3	2			0.021
Gustafson,C	AGEC	798	Masters Thesis	4	1			0.014
Bitzen,J	AGEC	798	Masters Thesis	3	1			0.010
Koo, W	AGEC	798	Masters Thesis	4	1			0.014
Wilson, W	AGEC	798	Masters Thesis	3	1			0.010
Nganje,W	AGEC	798	Masters Thesis	2	1			0.007
Wilson,W	AGEC	798	Masters Thesis	3	1			0.010
Tolliver,D	AGEC	798	Masters Thesis	1	1			0.003
							<b>Fall Total</b>	<b>7.472</b>

Summer 2003

Instructor	Prefix	Course No	Title	Credits	Enrollment	Course Rating	Instructor Rating	FTEs
O'Relley,E	ECON	201	Principles of Microeconomics	3	28			0.105
Herren, R	ECON	202	Principles of Macroeconomics	3	14			0.053
Herren, R	ECON	324	Money & Banking	3	21			0.116
Nganje, W	SAFE	470	Econ/Fd Safety	3	16			0.029
Nganje, W	SAFE	670	Econ/Fd Safety	3	5			0.017
DeVuyst,C	AGEC	496	FE/Agribus Major Internship	2	13			0.048
DeVuyst,C	AGEC	496	Field Experience	2	1			0.004
DeVuyst, E	AGEC	496	FE/Internship/Agric Finance	3	1			0.006
DeVuyst,C	AGEC	496	FE/Farmers Union Internship	3	1			0.006
Leitch, B	AGEC	496	FE/Agec/Hort Internship	3	1			0.006
Deckard, E	AGEC	499	ST/Issues/Int'l Integration Trade	3	13			0.072
Wilson, W	AGEC	797	Masters Paper	1	1			0.003
Bitzan, J	AGEC	798	Masters Thesis	4	1			0.014
Nganje, W	AGEC	798	Masters Thesis	6	1			0.021
Wilson, W	AGEC	798	Masters Thesis	1	1			0.003
Wilson, W	AGEC	798	Masters Thesis	1	1			0.003
Wilson, W	AGEC	798	Masters Thesis	4	1			0.014
<b>Sum Total</b>								<b>0.518</b>