The participants addressed several key issues during this session. Green, Hines, and

sues during this session. Green, Hines, and Petrulis presented a national perspective on financial stress in farming. The recent USDA study analyzing non-metropolitan counties by economic base was overviewed, keying on agriculturally-dependent counties. Richardson and Bowker discussed agricultural policy impacts in relation to both the agricultural industry and the community. Doeksen addressed the dependence of rural communities

ORGANIZED SYMPOSIA impacts of a decline in the numproperties on an example count AGRICULTURE AND COMMU-

AGRICULTURE AND COMMU-NITY ECONOMIC DEVELOP-MENT: IMPACTS OF A CHANGING FARM ENVIRON-MENT ON RURAL COMMUNI-

TIES (Moderator: Mike D. Woods, Texas A & M University).

Organizer: Mike D. Woods, Texas A & M University.

Presenters: Bernal Green, Fred K. Hines, and Mindaugas F. Petrulis, NRED, ERS, USDA; James W. Richardson and James M. Bowker, Texas A & M University; Gerald A. Doeksen, Oklahoma State University; and Lonnie L. Jones and H. L. Goodwin, Texas A & M University.

A great deal of interest has recently surfaced in agricultural economics and the Land-Grant System regarding the linkages between agriculture and rural communities. This interest has occurred because of several factors: a financial crisis in agriculture; the changing structure of agriculture; and realization that agricultural policy also impacts communities. Agriculture provides income and employment for rural residents both directly and indirectly. As agricultural transitions occur, residents and communities dependent upon agriculture are affected. There will be increasing pressures on rural communities to maintain the appropriate level of services as funding and perhaps population decrease. It should be noted that the linkages between agriculture and communities flow in two directions. Many farms depend on off-farm income to supplement total family income. Development in the non-farm economy in general provides more opportunities for farm families to supplement income and remain in the industry.

on agriculture, focusing on the estimated impacts of a decline in the number of farm properties on an example county. Jones and Goodwin completed the session with a discussion and comparison of farm and off-farm income trends at the national and regional levels.

EMERGING AGRICULTURAL RESOURCE ISSUES FOR THE SOUTHEASTERN UNITED STATES COASTAL PLAIN (Moderator: Katherine Reichelderfer, ERS, USDA).

Organizers: Upton Hatch, Auburn University and Michael Wetzstein, University of Georgia.

Presenters: Upton Hatch, Auburn University; Gary Lynne, University of Florida; Stanley Spurlock, Mississippi State University; and Michael Wetzstein, University of Georgia.

The Coastal Plain of the Southeastern United States has relatively ample water resources in comparison with Western States and the larger urban concentrations in the Northeast. The challenge to southeastern resource policymakers is to capitalize on this comparative advantage in water through possible regional shifts in agricultural production. Issues such as urban and agricultural competition, supplemental irrigation, pest management, and non-point source pollution impinging on this potential comparative advantage should be addressed before determining water management policies.

THE 1985 FARM BILL, AGRICUL-TURAL FINANCIAL STRESS, AND IMPLICATIONS FOR THE GENERAL ECONOMY (Moderator: Bruce Bullock, University of Missouri-Columbia).

Organizer: Stanley Johnson, Iowa State University.

Presenters: Greg Hanson, ERS, USDA; Stanley R. Johnson, Robert Jolly, and William H. Meyers, Iowa State University; John Penson, Texas A & M University; James Plaxico, Oklahoma State University; and Abner Womack, University of Missouri-Columbia.

The Food and Agricultural Policy Institute and CARD at Iowa State have been involved in three studies which were summarized in the symposium. These studies relate to the *Farm Journal* survey on the financial condition of U. S. agricultural farms, an evaluation of alternative proposals for the 1985 Farm Bill, and an uplinkage using the survey data and Farm Bill evaluations to the general economy. The uplinkage analysis was by Wharton Econometrics.

The function of the symposium was to provide an update on these studies and to subject the analysis in these studies to a broader professional evaluation within agricultural economics. The farm financial situation, if as serious as indicated in the *Farm Journal* survey and the recently released ERS survey, has important implications for U. S. agriculture, financial markets, and the general economy.

Professional capacity for evaluating economy-wide impacts of such financial conditions in agriculture is presently limited. For this reason, the participants were especially anxious for the Wharton study and the papers leading to that study to be communicated widely to the agricultural profession and as well, of course, closely evaluated by the profession.

FARM COMMODITY PROMO-TION PROGRAMS: RESEARCH ISSUES AND APPROACHES (Moderator: Olan D. Forker, Cornell University).

Organizer: Henry Kinnucan, Auburn University.

Presenters: William T. Manley, AMS, USDA; Ronald W. Ward, University of Florida; W. Bernard Lester, Florida Department of Citrus; Gregory J. Rathjen, D'Arcy, Masius, Benton, and Bowles, Inc.; Henry Kinnucan, Auburn University.

The primary purpose of the symposium was to identify the key research issues relative to farm commodity promotion programs as seen by four diverse groups: academia, industry, government, and advertising agencies. Ward discussed contributions in advertising theory, quantitative methods, and data systems that might be expected from the academic community. Lester's paper discussed the information needs of the Florida Department of Citrus, especially with respect to product allocation of advertising funds. Manley gave an overview of the government's role in commodity promotion and indicated the need to do research concerning the refund provision in promotion programs, the types of advertisements to permit, and whether program evaluation should be mandatory. Rathjen emphasized the need for agricultural economists to take a broader approach in attempts to evaluate advertising effectiveness so that, for instance, feedback on how well specific commercials worked would be provided. Kinnucan presented a synthesis of views expressed by the previous speakers.

CONDUCTING POSTHARVEST INTERDISCIPLINARY RE-SEARCH IN FOOD SCIENCE AND AGRICULTURAL ECO-NOMICS (Moderator: Anna A. V.A. Resurreccion, Georgia Experiment Station).

Organizers: Anna A. V.A. Resurreccion and Jeffrey L. Jordan, Georgia Experiment Station.

Presenters: Jeffery L. Jordan and Robert L. Shewfelt, Georgia Experiment Station; Gale R. Ammerman, Mississippi State University; and Gary Wells, Clemson University.

The major breakthroughs in agricultural research in the next decades will likely result from interdisciplinary research. The issues and problems to be confronted by agricultural researchers are not contained neatly in any one discipline. Innovative avenues of investigation are needed to study the problems associated with postharvest handling. Conventional, single disciplinary approaches are often confined to specific objectives and may solve the identical problem at the expense of later operations.

The annual meetings of the Southern Association of Agricultural Scientists (SAAS) provided a unique opportunity to advance and accommodate the discussion of interdisciplinary research. No other regional or national meeting brings together researchers from most agricultural disciplines under "one-roof." Expression of the experiences of researchers in the Southern region in conducting interdisciplinary research provides a set of useful ideas for those interested in working on such projects.

This organized symposium served two purposes. First, it provided a forum for discussion of conducting non-traditional types of research, including benefits of interdisciplinary work. Second, and potentially more important, the symposium was the first joint session of Food Scientists and Agricultural Economists at a SAAS meeting and likely fostered working relationships between the two disciplines.

The session provided a definition of interdisciplinary research which differs from the usual interaction of departments. The session explored the lessons learned by researchers involved in interdisciplinary work and an evaluation of the benefits as well as the costs of interdisciplinary work.

MACROECONOMIC POLICY AND ITS MICROECONOMIC IMPLICATIONS FOR AGRICUL-TURE AND RURAL SOUTHERN COMMUNITIES (Moderator: Brady J. Deaton, Virginia Polytechnic Institute and State University).

Organizers: Deborah M. Markley, University of Tennessee and David Orden, Virginia Polytechnic Institute and State University.

Presenters: Deborah M. Markley, University of Tennessee; James Hite, Clemson University; and David Orden, Virginia Polytechnic Institute and State University.

Increasingly, changes in the farm and nonfarm sectors of rural economies are influenced by macroeconomic policies at both the national and international levels. The wellbeing of the farm economy is influenced by such factors as the value of the dollar, commodity support programs, international trade policy of the United States and our trading partners, and the overall level of prosperity in the developing countries of the world. While some of these factors are sector-specific, many are determined in important respects by macroeconomic policy. Macroeconomic policies also affect the cost and effectiveness of specific agricultural policies.

The nonfarm sectors of the rural economy are likewise affected by macroeconomic policies. Rural financial markets are becoming more intergrated into national and international capital markets as financial deregulation progresses. The future of the U. S. textile, shoe, and automobile industries is directly affected by monetary and fiscal policies and by the industrial development policies of such countries as China and Japan. These macroeconomic impacts on U. S. industries have substantial effects on rural communities.

While the influence of macroeconomic policies on the Southern rural economy is increasing, and is increasingly recognized by policymakers, understanding of the microeconomic implications of these changes is lacking. Three different areas were addressed in this symposium: (1) the nature of macroeconomic policy in an integrated world economy with particular impacts on the agricultural sector highlighted, (2) the microeconomic implications for rural communities, using the example of financial market deregulation to suggest the types of changes that may occur, and (3) the impact of macroeconomic policy on an important rural industrial sector, manufacturing.

The future of United States farmers and the linkage of agricultural exports with international events has helped to raise awareness about the extent of "internationalization" of the rural economy. For many Southern rural communities, the effects of industrial integration into the world economy are of equal or greater magnitude. It is important that agricultural economists and economists with understanding of both the farm and nonfarm sectors of the rural economy begin to discuss the important relationships between the macroeconomic policy and its farm and nonfarm microeconomic impacts as they pertain to economic development in rural areas.

CREATING, REVIEWING, AND PUBLISHING MICROCOMPU-TER SOFTWARE (Moderator: Neil R. Martin, Jr., Auburn University).

Organizers: Jeffery L. Jordan, Georgia Experiment Station and Preston E. LaFerney, University of Arkansas.

Presenters: James McGrann, Texas A & M University; Richard A. Levins, University of Maryland; Jeffery L. Jordan, Georgia Experiment Station; Ted Nelson, Oklahoma State University; and Ernest Ben-

tley, Farm Computer Center, Inc., Christiansburg, Virginia.

The microcomputer has quickly become an important tool for land-grant institutions in serving agriculture. Agricultural economists have been in the forefront in the development and dissemination of microcomputer software, particularly extension economists. The SAEA has supported software development by including in its annual meetings sessions on computer applications. As software development becomes a more accepted function of agricultural economists, programming, reviewing, and publishing standards need to be established.

The Southern Agricultural Economics Association (SAEA) through the Southern Journal of Agricultural Economics (SJAE) has become the first journal outlet within the profession for microcomputer software articles. The introduction of microcomputer software articles in the SJAE is intended to provide an avenue of publication for an increasingly important segment of the profession. The experiences of the SAEA's microcomputer software committee in creating, reviewing, and publishing software articles provides the profession with a set of standards useful for all those interested in this area.

This organized symposium served two purposes: (1) it provided a forum for the dissemination of information about the *SJAE's* publication of software articles and (2) the symposium helped SAEA members better understand the process of creating, reviewing, and publishing software materials. AN OPEN FORUM ON COM-PUTERS IN THE AGRICUL-TURAL ECONOMICS CLASS-ROOM: CURRENT USES AND FUTURE PROSPECTS (Moderator: James Kliebenstein, University of Missouri).

Organizers: James Kliebenstein, University of Missouri and Daryll Ray, Oklahoma State University.

Presenters: Kerry Litzenberg, Texas A & M University; Daryll Ray, Oklahoma State University; David Laughlin, Mississippi State University; and Dorothy Comer, University of Florida.

Computer use in the agricultural economics classroom has developed gradually over the last 3 to 4 years. However, just recently the pace has quickened and usage is destined to grow more rapidly in the future. Among the issues discussed were: how microcomputers are used to reinforce economic concepts; administration of computer facilities; curriculum adjustments; use of special teaching techniques; software programs in use; and student expectations. Comer discussed the use of computers in analyzing agricultural data and firm-level farm problems. Laughlin and Kliebenstein described the use of microcomputers in undergradute and graduate farm management courses. Litzenberg related his experiences in teaching computer literacy courses and using micros in agribusiness management courses. Ray discussed teaching microcomputer applications in conjunction with teaching quantitative methods.