The Center for Privatization and Economic Reform (CPER) has been established at the Ukrainian Institute for Agricultural Economics (IAE) in Kiev, Ukraine. CPER is a three-year project administered by the Institute for Policy Reform (IPR) and funded by the U.S. Agency for International Development (USAID). Under direction from CARD, the center provides assistance, analysis, and expertise to the Ukrainian government during and beyond the transition to a market economy.

The project aims to create a capacity within IAE to provide policy analysis and trained professionals to serve the future market-based agriculture in Ukraine. Importantly, the CPER project builds on a long period of collaboration between Stanley Johnson, CARD director and ISU vice-provost for extension, and Petro Sabluk, IAE director and former Ukraine first deputy minister for agriculture. (See the article, “Highlights of CARD Initiatives in the Former Soviet Union” in this issue.)

Agriculture is responsible for approximately 12 percent of the gross domestic product and more than 21 percent of employment in Ukraine. Once an area of exceptional agricultural productivity, Ukraine has the potential to again become a major force in international agricultural markets—given a proper policy environment. Developed under the planned economy of the Former Soviet Union (FSU), the Ukrainian agricultural system has been slow to adapt to the open market conditions mandated by economic reform and by the international marketplace.

Policymakers in Ukraine have continued to focus their principal concern on the gross output of the agricultural sector, which has declined drastically since reform began in 1991 (as it has in other transition economies). Little attention has been paid to identifying demand for products and assisting in the development of viable markets for inputs, land, labor, and products. Little progress has been made in privatizing agricultural enterprises, eliminating state control of farm-level decisions, or creating a viable market either in products or in land of the sort that would make it possible to generate production credit and investment from the sector’s assets.

The CPER project will assist in the transformation of Ukrainian agriculture in several ways.

- **Policy-oriented research.** The CPER project organizes and manages short- and medium-term policy research on issues of contemporary concern. This work is done collaboratively with IPR consultants and researchers from IAE and other Ukrainian institutions. Studies currently under way focus on the grain and dairy...
subsectors, agricultural finance and farm debt, and transportation. Additional work on the sugar subsection, land market development, the impact of possible Ukrainian accession to the World Trade Organization, and other topics is planned.

• **Research and data depository.** In addition to compiling statistical data and conducting a major project to employ Geographic Information System (GIS) techniques in studying Ukrainian agriculture, CPER will serve as a collection center for other relevant research. Although a great deal of research and policy work has been done by Ukrainian and western experts, much of this work has been buried in project reports or forgotten as consultants have moved on to other assignments. CPER has the capacity to become a resource for those needing research information and analysis on the economic transition and on agricultural policy issues in general. CPER already works closely with the USAID mission, the British Know-How Fund, Technical Assistance to the Commonwealth of Independent States (TACIS), the World Bank, and the German advisory group to the Ukrainian Ministry of the Economy.

• **Publication program.** CPER distributes via e-mail a free weekly overview of materials related to agricultural policy from the Ukrainian regional press in the original languages. This information is available from no other source. An abridged English-language translation is also available. The CPER project is also developing a publication series entitled the CPER/CARD Ukraine Reports. The first publication in this series is “The Ukrainian

• **Institution-building.** IAE is now adjusting to an era of budget stringency and a focus on what are, for scholars trained under the Soviet system, radically new intellectual issues and research problems. CPER works with IAE to assist in this transition. In addition, CARD and IPR experts have provided information to the Ministry of Agro-industrial Complex relative to restructuring and redefining its functions for a market-oriented system.

• **Short-term policy advice.** CPER reviews government policy proposals and provides timely advice on current issues to mid- and senior-level policymakers. Many resources are used, including those of IPR, CARD, and Iowa State University, in cooperation with the Ukrainian government’s Interministerial Commission on Agricultural Policy, the office of the Ukrainian deputy prime minister responsible for agriculture, and through its own contacts and office in the Ukrainian Ministry of the Agro-industrial Complex (formerly the Ministry of Agriculture).
A collaboration between Iowa State University and the Former Soviet Union (FSU) began after Nikita Khruschev’s 1959 visit to Iowa. Initially Dr. Earl Heady, founder of CARD, and later his successor Dr. Stanley Johnson, developed a friendship with Alexander Nikonov, then president of the USSR Lenin All-Union Academy of Agricultural Sciences (known as VASKhNIL). The three had a common interest in scientific problems related to agriculture, an interest that transcended any political or ideological differences.

Nikonov was an agricultural economist. He was instrumental in developing the ideas that supported and implemented Glasnost, and he was a close advisor of Mikhail Gorbachev.

In 1987-88 Stanley Johnson initiated discussions with VASKhNIL scientists that resulted in a five-year research exchange agreement with CARD and ISU. In 1990 two major symposia were held—one in Ames and one in Suzdel, Russia—that broadened the joint research efforts and added commercial and educational components to the exchange. As economic reforms were beginning in the Soviet Union, the thought was that the agricultural sciences could support those reforms and contribute to the understanding of modern market systems.

In July 1991, 25 agricultural practitioners from the Newly Independent States (NIS) of the Former Soviet Union (FSU) arrived in Iowa for a 12-week stay. CARD developed a research exchange with the Lithuanian Institute of Agrarian Economics in 1989. Similar agreements were established with Latvia and Estonia in the early 1990s. These collaborations, which have been fostered by Dr. William Meyers, the interim director of CARD, have generated projects on agricultural policy, economic structure issues, export potential and linkages to international markets, and the environmental impacts of agricultural production. CARD has published a series of Baltic research papers, and has facilitated visits to Iowa by scholars, government officials, producers, and agribusiness people from the Baltic countries. The goal was to provide a practical learning experience for farmers and agribusiness people from the NIS and to provide an opportunity for U.S. farmers and agribusiness people to help their counterparts make the transition to a market economy.

CARD collaborated with the Ukrainian Institute for Agricultural Economics (IAE) to calculate the technical efficiency of Ukrainian agriculture. Three CARD faculty members—Alicia Carriquiry, Aziz Bouzaher, and Helen Jensen—worked at the Institute for brief periods in 1991 to evaluate the Ukrainian data. Funding was provided by the National Council of East European and Soviet Research. This was the first time that farm-level data from the FSU was used to calculate the efficient frontiers for production and to estimate technical efficiency for individual farms.

The results of the Carriquiry, Bouzaher, Jensen study were presented at the Allied Social Science Association’s 1994 annual meeting and published in the August 1994 issue of the American Journal of Agricultural Economics (also CARD Staff Report 94-SR 72, “The Structure of Ukrainian Agriculture: Comparative Efficiency with International Agriculture and Implications for Policy Reform”). Additional funding was provided by the U.S. Department of Agriculture’s Organization for International Cooperation and Development (OICD).

In 1992, two agribusiness centers were established on working farms in Kherson, Ukraine, and Stavropol, Russia. A year later, the Ukraine center was relocated to the White Church region near Kiev. As part of CARD’s public policy research program, these centers provided information and training on economic and technical problems.

The latest CARD initiative in Ukraine is the Center for Privatization and Economic Reform (CPER), a three-year program beginning in 1997, funded by the U.S. Agency for International Development, and located in Kiev at the Ukrainian Institute for Agricultural Economics.
In July 1997, CARD/FAPRI analysts V. Premakumar and Sudhir Chaudhary conducted a two-week training session on the FAPRI economic modeling system for staff members of the Center for Privatization and Economic Reform (CPER) in Kiev, Ukraine. On the basis of a proposal written by Premakumar and Chaudhary, the U.S. National Research Council provided matching funds for this project.

During the training session, Premakumar and Chaudhary, along with CARD Interim Director William Meyers, participated in a one-day international seminar entitled “Agricultural Market Situation and Analysis: The FAPRI 1997 World Outlook,” held at the Ukrainian Institute of Agricultural Economics (IAE). Meyers and CPER Codirector Don Van Atta developed the idea for the seminar, which was cosponsored by CPER, IAE, the Chemonics USAID Commodity Exchange Project, CARD/FAPRI, and the Economic Research Service of the U.S. Department of Agriculture (ERS/USDA).

Among the most difficult concepts for economists trained in the Soviet tradition to understand are price mechanisms, according to Premakumar. The Ukrainians, he said, remain skeptical about free-market price mechanisms. Their policy analysts still attempt to determine prices using formulas that consider factor prices but not market equilibrium conditions. The Ukrainians often try to “get the equation right” without taking into account the market for the product. The seminar focused on the 1997 FAPRI World Outlook, the ERS/USDA Market Reports, and the steps that would be necessary to develop similar market analyses for Ukraine.

**CARD Project in Ukraine (continued from page 2)**

State Grain Order,” written to meet a need of the international donor community to better understand the government’s system of grain procurement, a system that seriously threatens private-sector contracts. A second paper describing the FAPRI/CPER model of Ukrainian agriculture, written by Lyubov Kurkalova (a CARD graduate student) in collaboration with the CPER staff, is in production. These publications are available in English from CARD and in translations from CPER. The project will publish the results of the joint research projects as they become available.

**• Work with USAID.** Finally, project staff are working closely with the USAID mission in Ukraine and employees of other AID contractors in monitoring events and preparing policy responses.

The contract to establish the CPER project was signed by USAID and IPR in January 1997, naming CARD interim director William Meyers as the principal investigator and project manager. Johnson, Meyers, and Don Van Atta, project chief-of-party and CPER codirector, met with Ukrainian government and business leaders and U.S. Department of Agriculture and USAID officials in Ukraine. During a subsequent visit to Iowa by Sabluk, the subcontract agreement between Iowa State University and IAE was signed. According to the agreement, IAE provides a codirector for CPER (Sabluk), office space, and free access to IAE libraries, departments, and data collections. CPER and IAE staff work jointly in designing

Continued on page 6
At the seminar, Chaudhary presented the FAPRI outlook for world market prices and trade. Meyers followed with an outlook for Ukraine. Meyers qualified the Ukraine outlook because “we still have very limited data and analytical tools to evaluate the prospects for Ukraine and other countries in the region.” According to Meyers, the agricultural situation in Ukraine has not developed at a pace equal to that of the nations in Central and Eastern Europe.

Crop production in the Former Soviet Union republics has been declining for several years and, said Meyers, “we are projecting only a slow recovery in planted area and yield . . . over the next decade.” Ukraine prices for wheat and barley, cattle and hogs, chickens, and milk are low when compared to world market prices, while Ukraine prices for butter and sugar are high. These data indicate that Ukraine is “not yet well integrated with the world market.” Meyers pointed out, however, that Ukraine prices seem to be gradually coming into line with world market expectations, an indication that “Ukrainian farmers have much to gain from more market integration with the world market, as that will significantly increase prices for most products.”

According to Premakumar, shortly after Ukraine became independent there was a brief period when—eager to implement market-oriented reforms—the government discontinued its control over the agricultural sector. The resulting prices for commodities were low, but the purchasing power of most Ukrainians was even lower. As a result, domestic demand was suppressed and there was an outflow of basic agricultural commodities to other countries. At the very least, domestic security was at stake, and the government reverted quickly to the old system of government control and procurement.

Ukrainians recognize, however, that without economic reform, the market integration they have been seeking will not be realized. CPER has been established to provide assistance in the transition to a market economy.

The Center for Privatization and Economic Reform presently has a staff of six economists and the state-of-the-art computer equipment necessary for developing baselines. Premakumar and Chaudhary believe that CPER can provide a valuable advisory component as the Ukrainian government and private sector attempt once more to allow the market to determine the prices of agricultural commodities.

**State Grain Order Is Subject of Ukrainian Policy Paper**

CARD and the Center for Privatization and Economic Reform (CPER) in Kiev, Ukraine, have established a new publication series on Ukrainian agricultural policy. The policy papers in this series are authored by CPER and CARD staff members and by researchers who will be contracted by the Institute for Policy Reform (IPR) to work on specific policy issues. (See the article, “CARD Project in Ukraine” in this issue).

The first article in the series is “The Ukrainian State Grain Order” by Don Van Atta, CPER codirector, and Sergei Zoria, Maia Betlyi, and Aleksandr Shanin, CPER staff members.

Since 1927, some form of “state order” has been the primary instrument for collecting agricultural produce from Ukrainian farms.

This paper summarizes the history of the grain procurement system and what is known about the state order system as it currently exists. As the supporting data presented in tables and charts indicate, not since 1981 has the state order been fully met. Given a record of under-fulfillment and the requirements for repayment of past arrears in the current year’s state order documents, it seems unlikely, according to Van Atta and his coauthors, that there will be enough grain available to private traders and input suppliers for them to fulfill their own obligations in a timely manner. Even if it is, the use of state power to enforce its own grain collections will, once again, make it very difficult for nonstate grain traders to prosper, or even survive.

“...Throughout the Soviet period, managerial performance was reputedly judged above all by success in achieving the planned gross output and sales to the state. The ‘first commandment’ for Soviet farm managers was fulfillment of their delivery plan. The habits of management this system engendered, especially disregard for production costs and the desire to hit the output target at all costs, remain...”

**CARD Project in Ukraine (continued from page 4)**

and carrying out the major research projects. The CPER project also benefits from the assistance of an advisory board of U.S. and Ukrainian agricultural experts chaired by Johnson and Sabluk. Because it is important that CPER analyses are timely, project work plans will be drafted on an annual basis. The CPER staff together with the advisory board will select the issues and problems that will be investigated during each 12-month period.

**Contact Information**
Sandra Glass, Program Assistant
CARD
Iowa State University
578 Heady Hall
Ames, IA 50011-1070
phone: 515/294-2614; fax: 515/294-5179
e-mail: sglass@gcard.iastate.edu

CPER office
IAE
UAAS
Suite 311B315
Heroiv Oborony st., 10
Kyiv, 252127

UKRAINE
phone: (38-044) 247-76-56; fax: 247-78-43
e-mail: root@cper.kiev.ua or dvanatta@cper.kiev.ua
CARD Profile: Don A. Van Atta

Don A. Van Atta comes to the Center for Privatization and Economic Reform (CPER) project with many years’ experience in Soviet and Former Soviet Union (FSU) studies. Van Atta: “I have been working on issues involving the FSU since I was twenty years old and dealing with agricultural policy there when a student asked me an offhand question in a graduate seminar in 1976.”

Raised in California, Van Atta received his Ph.D. in political science from the University of California, Berkeley, with a Certificate in Russian and Eastern European Studies. He is fluent in Russian, having attended Russian language schools at both Middlebury College in Vermont and Leningrad State University.

Van Atta has taught government and political science at Hamilton College, San Francisco State University, and San Jose State University and has served as a consultant on a number of projects involving the FSU. He is an internationally known expert on agricultural policy in the FSU and has published a number of articles on the subject in both the academic and popular press. Prior to accepting the position as chief-of-party for the CPER project, Van Atta was an administrator in the Directorate for Food, Agriculture and Fisheries of the Organization for Economic Cooperation and Development (OECD) in Paris, where he followed economic trends in the agricultural and food sectors in the FSU.

Having spent a total of three days in Ames, Iowa, Van Atta believes, nonetheless, that there is a certain symmetry in his working on an Iowa State University project. His father received a degree in chemistry at ISU and worked at the Ames Lab for several years. Also, his uncle was a member of the first graduating class in the ISU TV school in 1954.

Van Atta met Tamara Gavrilenko when he was studying in Leningrad. He said, “We were married in a great hurry because those were days when they wouldn’t let you back for that kind of thing. We didn’t go back for several years because we weren’t sure they wouldn’t keep her or the kids (who were both born in the United States).” Since January 1997, the Van Attas have made their home in Kiev with their fourteen-year-old son, Daniel. They also have a daughter, Alissa, who is attending college in the United States.
Soil properties vary; crop yields vary. Can yields be increased by varying fertilizer applications within fields using precision agriculture technologies? This question forms the basis of a research study conducted by Bruce Babcock, head of the CARD Resource and Environmental Policy Division and Greg Pautsch, division researcher.

The traditional approach has been to apply fertilizer at a single rate to an entire field or group of fields using single rate technologies, or SRT. An alternative approach applies inputs at variable rates, and this is known as variable rate technologies, or VRT. Directly affected are yields, costs (and waste) of inputs, soil and water contamination, and, last but not least, farmer income.

Babcock and Pautsch have completed a study estimating the potential value of switching from the SRT approach to the VRT approach. Their study was conducted using data from twelve Iowa counties (see list in the accompanying table).

Excessive use of nitrogen by U.S. farmers is a major concern among agronomists, environmentalists, and the water industry. And, the environmental impacts of excess application of chemicals on cropland has drawn increased public concern over the past several years. Using VTR has implications for decreasing the environmental impacts of fertilizer application as well as improving production efficiency.

**Study Results**

In the twelve-county study area, fields with lower overall productivity, on average, possess greater yield variability. The study’s results indicate that the value of using VRT, on average, will be greater for less productive fields than fields with higher productivity levels. To show the impacts of replacing SRT with VRT, Babcock and Pautsch estimate the potential yield variability, along with nitrogen use and farmer profits, for individual fields and for entire counties. Their estimates are based on a fertilizer decision model developed at CARD whose parameters were established from the results of previous studies.

### SRT to VRT: Returns over Fertilizer Costs

In CARD Working Paper 97-WP182, “Moving from Uniform to Variable Fertilizer Rates on Iowa Corn: Effects on Rates and Returns,” Babcock and Pautsch present several tables, and an appendix containing extensive data on SRT acres that are oversupplied, undersupplied, and properly supplied with nitrogen fertilizer (for the 12 Iowa counties in the study). An excerpt from the paper follows:

“The table presents the per-acre change in returns over fertilizer costs when switching from SRT to VRT applications of nitrogen fertilizer. The table results assume that optimal nitrogen rates are relatively responsive to maximum yields. The largest increase in returns, $7.43 per acre, occurred in Adair County and the smallest increase in profit, $3.40 per acre, occurred in Henry County. Over the whole study area, switching to VRT would increase returns over fertilizer costs by $4.44 per acre.

The table also presents the source of the increase in returns when switching to VRT. The vast majority of the increase (86 percent) came from reducing excess fertilizer applications. Profit-maximization using SRT leads to excess applications because the payoff from reducing yield shortfalls in high-yielding portions of fields is greater than the cost savings from reducing rates on low-yielding portions. With VRT, farmers possess information about the locations of their soils and the ability to vary fertilizer rates. This knowledge and ability leads to lower production costs from reduced fertilizer applications without a yield loss. In Pottawattamie County, for example,
eliminating the over application of nitrogen fertilizer contributed to 95 percent of the increase in profit. In Carroll County, the contribution is lowest, but still quite substantial at 70 percent.”

**Continuing Research Needed**

At present, the precision agriculture industry lacks a method to readily use available data and decision rules to replicate the VRT process and accurately assess the value of using VRT. Babcock and Pautsch believe that “a fertilizer decision model could provide assistance to local extension agents and the agricultural community in examining the commercial and environmental benefits of the widespread implementation of VRT.”

There is a growing need for research that estimates the potential value to farmers of acquiring and using improved information about spatial variability within their fields. Farmers who are trying to estimate the potential value of investing in precision agriculture equipment need reliable data and analysis. And, equipment manufacturers need decision models that translate the technology into value for farmers. Babcock and Pautsch have addressed these needs by estimating the potential value of using information about the distribution of soil productivity within fields to guide nitrogen fertilizer rates.

### Increase in farmer returns over fertilizer costs using VRT in 12 Iowa counties ($/acre) when optimal nitrogen rates are relatively responsive to maximum yields

<table>
<thead>
<tr>
<th>County</th>
<th>Returns over Fertilizer Cost ($/acre)</th>
<th>Percent Attributable to Eliminating SRT Over-application of Nitrogen</th>
<th>Percent Attributable to Under-application of Nitrogen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adair</td>
<td>7.43</td>
<td>93</td>
<td>7</td>
</tr>
<tr>
<td>Black Hawk</td>
<td>3.42</td>
<td>93</td>
<td>7</td>
</tr>
<tr>
<td>Carroll</td>
<td>4.24</td>
<td>70</td>
<td>30</td>
</tr>
<tr>
<td>Henry</td>
<td>3.40</td>
<td>93</td>
<td>7</td>
</tr>
<tr>
<td>Hancock</td>
<td>4.52</td>
<td>86</td>
<td>14</td>
</tr>
<tr>
<td>Hamilton</td>
<td>3.89</td>
<td>73</td>
<td>27</td>
</tr>
<tr>
<td>Poweshiek</td>
<td>5.65</td>
<td>82</td>
<td>18</td>
</tr>
<tr>
<td>Pottawattamie</td>
<td>4.27</td>
<td>95</td>
<td>5</td>
</tr>
<tr>
<td>Sioux</td>
<td>3.78</td>
<td>86</td>
<td>14</td>
</tr>
<tr>
<td>Story</td>
<td>3.55</td>
<td>80</td>
<td>20</td>
</tr>
<tr>
<td>Jones</td>
<td>6.68</td>
<td>89</td>
<td>11</td>
</tr>
<tr>
<td>Wright</td>
<td>4.34</td>
<td>90</td>
<td>10</td>
</tr>
<tr>
<td><strong>12 County Total</strong></td>
<td><strong>4.44</strong></td>
<td><strong>86</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>
DHAMU THAMODARAN
Dr. Dhamu Thamodaran is Vice President of Price Risk Management with Smithfield Foods, Inc. He was a graduate student at CARD from 1979 to 1984 and completed his dissertation under the guidance of Dr. Earl Heady, receiving his doctorate in 1983. Dhamu was a post-doctoral fellow in 1983-84. He was an economic analyst with Farmland Industries from 1984 to 1990 and director of risk management with John Morrell & Co. from 1990-95.

Smithfield Foods, headquartered in Norfolk, Virginia, is the largest producer and processor of pork and pork products in the United States. In his current position, Dhamu manages all aspects of pricing including trading and hedging futures in livestock and grain markets on the domestic and international fronts. He is a member of the American Meat Institute Pork committee, and serves as an advisor on livestock markets to the Chicago Mercantile Exchange. Dhamu told CARDreport that the superior analytical training he received here, and his interactions with people from diverse backgrounds in CARD, has provided him with the basic skills needed to excel in his current position.

From the Interim Director

T

his issue highlights the three-year policy project in Ukraine that was initiated early in 1997 with $2 million in funding from USAID. The focus of the project is to support Ukrainians in developing and sustaining an enabling policy environment for agriculture that will provide a basis for a strong sector in the future.

As indicated by the review of CARD’s long-term commitment to and involvement in various scientific and agribusiness collaborations in the Soviet Union and later in the independent countries of the region, the current opportunity to work with Ukraine in economic and agricultural development is a result of many years of cooperation and friendship with the agricultural leaders of Ukraine. Leading the CARD effort in Ukraine is Don Van Atta (profiled in this issue), who also has devoted years of his life to study and work in the region as a student, teacher, and policy expert.

CARD analytical studies summarized in this CARDreport deal with two emerging issues in the United States: the impacts of precision agriculture technologies, and the nutritional status of elderly populations. These and other applied research studies at CARD are designed to inform decision makers in government and industry and thereby improve policy and management decisions. For this reason, CARD maintains an active in-house publication program to quickly disseminate the results of such studies to a broad clientele. We encourage readers of CARDreport to peruse the list of new publications and request any that would be useful. Abstracts of new publications are available on our Web site <www.ig.iastate.edu/card>.
Assessing the Nutritional Status of U.S. Elderly Populations

Helen Jensen, head of CARD’s Food and Nutrition Policy Division, along with Mary Jane Oakland, ISU Food Science and Human Nutrition professor, and nutritionist Patricia Guenther have been investigating the way Americans eat for over five years. An earlier project they conducted in collaboration with the ISU Statistics Department involved developing research methods for assessing the nutritional adequacy of diets and identifying specific populations of Americans that are at risk for not receiving sufficient nutrition through their normal diets. Jensen, Oakland, and Guenther have recently received a two-year, $95,000 National Research Initiative Competitive Grant from the U.S. Department of Agriculture to focus the assessment methods on one segment of the population deemed at risk for being malnourished—the nation’s elderly.

For most of us, growing older will mean making adjustments, often to life patterns as basic as how and what we eat. As we age, we become more susceptible to heart disease, cancer, hypertension, osteoporosis, and diabetes—all conditions that are affected by diet. The USDA food consumption survey data for 1994 suggest that America’s elderly may not be receiving the proper nutrients from their food. According to the USDA, the diets of the elderly often do not provide sufficient energy, vitamins, and other essential nutrients, especially calcium. Their diets are, however, higher in fat than is recommended.

Many factors may affect the way elderly people prepare and consume food. They may be living on reduced incomes, which could affect food choices. They may be spending more time at home and have more leisure time, in general, to prepare food. Also, in the past there was not as much choice as there is today. Elderly people may not know about alternative foods, and even if they are familiar with them, the food may not work in the recipes that they have used for many years. Or, they may simply prefer the foods they have always eaten.

Jensen, Oakland, and Guenther will apply their research methodology to the USDA 1994-96 Continuing

Continued on page 12
Survey of Food Intakes by Individuals and the Diet and Health Knowledge Survey (CSFII/DHKS) data to assess the adequacy of the diets of the elderly and food sources of nutrients. In this effort, the researchers will use a software program called C-Side, developed by Iowa State University with support of the Agricultural Research Service, USDA, to assess the nutritional adequacy of daily intakes of food over time (see the article in CARDreport, Vol. 9, No. 1).

The project also aims to determine the extent to which elderly Americans are educated about good nutrition. In particular, are the elderly familiar with the nutritional standards laid out in the Food Guide Pyramid? The Food Guide Pyramid is a guide to daily food choices that divides food into six groups, beginning at its base with a large number of carbohydrate servings and tapering to moderate consumption of milk and meat products and sparing use of fats, oils, and sweets. Older Americans have grown up with a different kind of food education than this pyramid. The researchers are interested not only in the kinds of nutrition education the elderly have received, but also in whether or not they are applying their knowledge in their daily diets. (The Food Guide Pyramid can be seen at the USDA website: www.usda.gov/fcs/cnpp.htm.)

A final goal of the project is to determine if the elderly population in the United States is best understood by considering additional subpopulations in order to get a clearer picture of nutritional adequacy. Which U.S. residents above the age of 50 need to modify their diets and need more nutritional education? The fastest growing segment of the U.S. population is the group of people age 85 and older. Do the people in this group have the same food consumption patterns and knowledge of nutrition as people from ages 50 to 60, for example? Do they even have the same nutritional needs? Jensen, Oakland, and Guenther hope to be able to determine what portion of the population above the age of 50 is most at risk for being nutritionally deprived.

In large part, successful aging involves being able to maintain good health and independence for as long as possible. The results of this research can be useful in developing nutritional education programs for the elderly. The project results could also become part of a comprehensive health strategy on behalf of America’s aging population. And, as is true for all age groups, changes in dietary patterns will ultimately affect demand for food and agricultural products consumed by the U.S. population.
Technical Reports

Working Papers

Baltic Reports

Baltic Basin Reports

Briefing Papers

FAPRI Outlooks
GATT Papers


Selected Staff Publications*

Book Chapters


Journal Articles


*Names in boldface indicate current CARD faculty and staff.
CARD is a public policy research center founded in 1958 at Iowa State University. Research, educational, and outreach programs at CARD are conducted in four primary areas: trade and agricultural policy, food and nutrition policy, resource and environmental policy, and rural and economic development policy.

William H. Meyers  
Interim Director

Judith Pim  
Manager, Communications and Information Division

Ellen Balm  
Staff Writer

Becky Olson  
Publication Design and Production

Contact Betty Hempe for a free subscription to the CARD Report, publication information, and address changes: CARD, Iowa State University, 578 Heady Hall, Ames, IA 50011-1070; Phone: 515-294-7519; FAX: 515-294-6336; e-mail: card@card.iastate.edu.