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Income, Wealth, and Economic Well-Being of Farm Households (AER 812)

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Since their inception in the 1930s, price and income support programs have been devised to both raise the level of farm income and close the gap between farm and nonfarm incomes. Concurrent with farm program changes over the years was a dramatic shift in the structure and organization of farms. Current farming operations are complex business entities requiring astute management of contracts, alliances, and ventures.

Farm households are faced with wide-ranging decisions about how to allocate their limited resources among farm and nonfarm activities. Just as farms are diverse in their structure, so are households in their employment, investment, and consumption.

This report surveys the factors that affect the economic well-being of farm operator households. It also addresses pertinent policy issues, such as whether farm households are inherently disadvantaged and whether they have lower incomes, lower wealth, and lower household expenditures than nonfarm households. The analysis hinges on an economic well-being concept that captures farm household wealth and expenditures in addition to more conventional income measures.

The main findings of this report are:

- **Farm households are no different than other households in pursuing two careers and diversifying earnings.** More than half of all U.S. farm operators work off-farm, with 80 percent of these working full-time jobs. Nearly half of all spouses are also employed off the farm. Off-farm work is no longer viewed as a transitional position between the agricultural and the industrial economy, but as a lifestyle choice, with farming as a second job or investment. As with most households, income flows not only from farm and off-farm employment but also from investments. Off-farm employment is often for the sake of securing retirement and health benefits.
- **The farm business as a source of income has played an increasingly smaller role in determining the well-being of farm households.** Nearly 90 percent of total farm household income in 1999 originated from off-farm sources. The contribution of earned income (off-farm) alone amounted to 53 percent of total farm household income.
- **While farm business income exhibits considerable variability, farm household income is relatively stable.** Fluctuations in farm output, commodity prices, and business cycles, along with

macroeconomic policies (as they affect interest rates and exchange rates) all contribute to the variability in farm income. Since these factors are beyond any farmer's control, many farm households have relied successfully on off-farm income to stabilize their total household income.

- **While the age and status of the farm operator (life cycle) most determines the level and sources of household income and wealth, farm type and size, operator education, farm tenure, and family size also factor in.** Of the contributing factors, perhaps the most significant is the size of the farming operation.

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Consumer Food Safety Behavior: A Case Study in Hamburger Cooking and Ordering *(AER 804)*

www.ers.usda.gov/publications/aer804

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Promoting the benefits to consumers of following food safety recommendations—through food safety education as well as through media coverage of foodborne illness outbreaks—appears to be influencing cooking and eating behavior. Cooking and ordering hamburgers well-done reduces the risk of infection by *E. coli* O157:H7 and other pathogens.

More Americans are eating their hamburgers more thoroughly cooked than before, according to several national surveys. For example, the change in behavior reported in the 1996 Hamburger Preparation Quiz (HPQ), a national survey of hamburger cooking and ordering preferences, translates to an estimated 4.6-percent lower risk of *E. coli* O157:H7 infection and an estimated \$7.4-million annual reduction in medical costs and productivity losses as well as reductions in other foodborne illnesses associated with rare and medium-rare hamburger.

Food safety messages about cooking and ordering hamburgers may encourage consumers to handle other foods more safely as well. While *E. coli* O157:H7 in hamburger is a small part of the burden of

foodborne illness—estimated at 5,000 deaths and more than \$6.9 billion in medical costs and reduced productivity annually—these findings illustrate the potential benefits from encouraging consumers to follow food safety recommendations as part of an overall strategy to reduce the toll of foodborne illness.

Consumers make their decisions on how to cook and order foods based on several factors, including taste, palatability, and perceived food safety risk. Consumer behavior has changed over time, due in part to increased awareness of the risk of foodborne illness and the importance of thorough cooking in reducing that risk.

Of respondents to the 1996 HPQ, 70 percent of those who had switched to more well-done hamburgers in the past 5 years reported they had done so out of fear of foodborne illness. Respondents with higher motivation to avoid foodborne illness were significantly less likely to cook or order hamburgers rare or medium-rare than those with less motivation, holding other factors constant. Taste preferences, however, proved even more important than motivation to avoid foodborne illness. Thus, food safety education not only must convey the risk of lightly cooked hamburgers, but also should include infor-

mation on how to retain juiciness and flavor in a thoroughly cooked hamburger.

Consumers in the South, Northeast, and in large cities were more likely to order hamburgers rare, medium-rare, or medium-pink, even after accounting for risk perceptions, tastes, and other factors. However, consumers in different regions and areas of different sizes reported similar doneness choices when cooking hamburgers for themselves. Only household size was significantly associated with how respondents say they cooked their own hamburgers, after accounting for risk perceptions and tastes. This suggests consumer education to encourage thorough cooking of hamburgers at home should be broadly dispersed rather than focused in certain regions.

White respondents, those with higher income, those with larger families, and those who had experienced foodborne illness had higher motivation to avoid foodborne illness, as did those whose main sources of food safety information were magazines, cookbooks, television, and government sources (such as hotlines).

Conveying the consequences of foodborne illness may help motivate consumers to follow food safety recommendations.

Adoption of Bioengineered Crops *(AER 810)*

www.ers.usda.gov/publications/aer810

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Rapid adoption of new technologies within the U.S. agricultural sector has resulted in sustained increases in agricultural productivity, contributed to economic growth, and ensured an abundance of food. More recently, U.S. farmers are adopting biotechnology innovations that, beyond their impact on productivity, have caused concerns about their potential impact on the environment and opened a Pandora's box of issues surrounding consumer choice, particularly in Europe. These innovations (bioengineered crops) are embedded in the seeds and derive from the use of genetic engineering tech-

niques, which modify organisms by recombinant DNA.

This report summarizes and synthesizes research findings addressing farm-level adoption of genetically engineered (GE) crops. Because there are nonfarm concerns about the technology, an accurate read on benefits and costs to farmers is an important component of a more complete social welfare calculus. Chief among the priorities of this research, given available data, were the following research questions. What is the extent of adoption of first-generation bioengineered crops, their diffusion path, and expected adoption rates over the next few years? What factors have affected the adoption of bioengineered crops and how? And what are the

farm-level impacts of the adoption of bioengineered crops available as of the 1990s?

The most widely and rapidly adopted bioengineered crops in the United States are those with herbicide-tolerant traits. These crops were developed to survive the application of specific herbicides that previously would have destroyed the crop along with the targeted weeds, and provide farmers a broader variety of herbicide options for effective weed control. Herbicide-tolerant soybeans became available to farmers in limited quantities in 1996. Use expanded to about 17 percent of the soybean acreage in 1997, 56 per-

Continued on page 4

cent in 1999, and 68 percent in 2001. Herbicide-tolerant cotton expanded from 10 percent of cotton acreage in 1997 to 42 percent in 1999, and reached 56 percent in 2001. In contrast, the adoption of herbicide-tolerant corn has been much slower and has yet to exceed 10 percent. Bt crops containing the gene from a soil bacterium, *Bacillus thuringiensis*, are the only insect-resistant GE crops commercially available as of 2002. The bacteria produce a protein that is toxic to certain Lepidopteran insects (insects that go through a caterpillar stage), protecting the plant over its entire life. Bt has been built into several crops, including corn and cotton.

After its introduction in 1996, Bt corn grew to 8 percent of U.S. corn acreage in 1997 and 26 percent in 1999, but fell to 19 percent in 2000-01. Bt cotton expanded rapidly from 15 percent of U.S. cotton acreage in 1997 to 32 percent in 1999 and about 37 percent in 2001. The growth rate of Bt crop adoption will vary over time, mainly as a function of the infestation levels of Bt target pests. The growth rate for Bt corn adoption is likely to be low since adoption has already occurred where Bt protection can do the most good. On the other hand, adoption of herbicide-tolerant crops will likely continue to grow, particularly for cotton, unless there is a radical change in U.S. consumer sentiment.

In most cases, the growth of GE crops estimated in this report is validated by the 2001 plantings. The adoption of herbicide-tolerant soybeans is found to be invariant to farm size, as expected since GE crop technologies only require changes in variable inputs (such as seeds), which are completely divisible. However, the adoption of herbicide-tolerant and Bt corn is found to be positively related to farm size. For herbicide-tolerant corn, this appears due to its low overall adoption rate, which implies that adopters were largely innovators and other early adopters. As other researchers have observed, adoption is more responsive to farm size at the innovator stage and this effect generally diminishes as diffusion increases. The observed relationship between Bt corn adoption and farm size

may have arisen because Bt corn targets a pest problem that is generally most severe in areas where operations are largest.

GE crop adoption is found to be positively and significantly related to operator education, experience, or both. More educated or experienced operators are more likely to understand that the greatest economic benefits of new technologies accrue to early adopters. The use of contracting (marketing or production) is positively associated with GE crop adoption in most cases, possibly reflecting the greater importance placed on risk management by adopting farms. Contracting also ensures a market for GE crops, reducing price and any market access risk that could result from uncertain consumer acceptance.

Farm-level impacts of GE crop adoption vary by crop and technology. The estimates are based on 1997 field-level data and 1998 whole-farm data and are obtained from marginal analyses, meaning that the estimated impacts are associated with changes in adoption around the aggregate level of adoption. The adoption of herbicide-tolerant corn improved farm net returns among specialized corn farms (deriving more than 50 percent of the value of production from corn). The limited acreage on which herbicide-tolerant corn has been used is likely acreage with the greatest comparative advantage for this technology. The positive financial impact of adoption may also be due to seed companies setting low premiums for herbicide-tolerant corn relative to conventional varieties in an attempt to expand market share.

The adoption of herbicide-tolerant soybeans did not have a significant impact on net farm returns in either 1997 or 1998. Since these findings were obtained from marginal analysis, they imply that an increase from the average adoption rate (45 percent of acreage) in 1998 would not have a significant impact on net returns. However, this is not to say that GE crops have not been profitable for many adopting farms. As a recent study comparing weed control programs found, the use of herbicide-tolerant soybeans was quite profitable for some farms, but the prof-

itability depended specifically on the types of weed pressures faced on the farm and on other factors. This suggests that other factors may be driving adoption for some farms, such as the simplicity and flexibility of herbicide-tolerant soybeans, which allow growers to use one product instead of several herbicides to control a wide range of both broadleaf and grass weeds, and makes harvest "easier and faster." However, management ease and farmer time savings are not reflected in the standard calculations of "net returns to farming."

Adoption of Bt cotton had a positive impact on net returns among cotton farms but adoption of Bt corn had a negative impact on net returns among specialized corn farms. This marginal analysis suggests that Bt corn may have been used on some acreage where the value of protections against the European corn borer (ECB) was lower than the Bt seed premium. Because pest infestations differ across the country (for example, ECB infestations are more frequent and severe in the western Corn Belt), the economic benefits of Bt corn are likely to be greatest where target pest pressures are most severe. Some farmers may also have made poor forecasts of infestation levels, corn prices, and yield losses due to infestations. A reduction in the Bt corn adoption rate between 1999 and 2000-01, from 25 to 19 percent, may be due in part to producers learning where this technology can be used profitably.

On the environmental side, the analysis shows an overall reduction in pesticide use related to the increased adoption of GE crops (Bt cotton; and herbicide-tolerant corn, cotton, and soybeans). The decline in pesticide use was estimated to be 19.1 million acre-treatments, or 6.2 percent of total treatments (1997). Total active ingredients also declined by about 2.5 million pounds. The pounds of active ingredients applied to soybeans increased slightly, as glyphosate was substituted for other synthetic herbicides. However, this substitution displaced other synthetic herbicides that are at least three times as toxic to humans and that persist in the environment nearly twice as long as glyphosate.

Households *from page 1*

- **Income available to farm households can support a standard of living equal to or above that of nonfarm households.**

Associated with the considerable rise in total farm household income in recent years have been a rise in expenditures (on goods and services) and a rise in savings and/or investments. Farm households, on average, are better able to support their consumption needs with income.

- **Consumption expenditures of farm households are lower than for all U.S. households.** Farm household expenditures appear to be lower than nonfarm household expenditures, even when the analysis controlled for differences in income, age, location, and size of farm.

- **For most nonfarm households owning businesses, the business is the main source of income; for most farm proprietorship households, the farm detracts from total household income.** Based on a comparison of either median or average incomes, farm operator households are now on par with all U.S. households. The closing of the income gap has been substantially driven by the increase in income

from off-farm sources. Despite the convergence of the income levels, farm businesses were much more a household liability than nonfarm businesses. For more than 60 percent of farm households in 1998, the business was a detriment to a household's before-tax income. Only 4 percent of nonfarm businesses incurred income-reducing losses.

- **Despite conventional thinking, farm households are not financially disadvantaged compared with other U.S. households.** Almost half of farm households have both higher incomes and greater wealth than U.S. households as a whole. Of these households, 98 percent reported household income greater than consumption expenditures.

- **Average wealth of farm households has increased, and farm households have broadened their portfolio to include more nonfarm investments.** Nominal wealth of the average farm household grew by 54 percent over 1993-99. With the growth in average wealth, farm operator households have broadened their investments to include cash, money market accounts, corporate stocks, mutual funds, IRA, and 401K accounts. The share

of this wealth in 1999 stood at more than twice its 1993 level, but can be expected to contract as it had expanded with the 1990s booming nonfarm economy.

- **Even for farms located in rural areas, off-farm income is still the dominant source of household earnings.** Income and wealth of farm households based on the location of the farm follow a similar pattern: those households in or near a metro area tend to be significantly better off than nonmetro households. Farm households in metro areas depend heavily on off-farm income (95 percent of total income). Through their off-farm work, these households can invest in nonfarm assets.

Taken together, these findings demonstrate that it is no longer suitable to class all farm households together and consider them either disadvantaged or without financial problems. While the economic well-being of most farm households eclipses that of all households, 6 percent of farm households clearly remain disadvantaged relative to both the farm and nonfarm population in terms of their low income and wealth.

Characteristics and Production Costs of U.S. Wheat Farms *(SB-974-5)*

www.ers.usda.gov/publications/sb974-5

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Wheat is the principal cereal grain crop used for food consumption in the United States and most of the world. In terms of value of production and planted acreage, wheat is typically the Nation's fourth largest field crop. Only corn, hay, and soybeans are more important. Wheat is also a leading U.S. export crop, with exports accounting for almost half of total wheat production. U.S. wheat farmers are facing many challenges despite a strong domestic market demand for wheat products. Many wheat farmers are not able to cover all of their production costs, even after Government payments are added to their income.

Wheat land area has dropped from the early 1980s because of declining returns relative to other crops and alternative options under Government programs. The price of wheat has dropped sharply since

the 1996 peak and averaged \$2.78 per bushel during the past 4 crop years (1997/98 through 2000/01). The elimination of planting restrictions under the 1996 Farm Act facilitated expansion of soybeans, corn, and other crops in wheat areas. Also, loss of wheat acreage to row crops was due to strong genetic improvements in corn and soybean varieties that could be planted farther west and north (areas with drier conditions or shorter growing seasons).

U.S. wheat can be grown under many different topographic and soil situations and is adaptable to extreme weather conditions. Wheat production generally occurs in diversified farming operations. About a third of farms with wheat also raise livestock. U.S. farmers planted wheat on 65.8 million acres in 1998, 6.4 percent below 1997 acreage levels, and produced 2.55 billion bushels, up 2.8 percent from the 1997 level. Because of favorable weather, 1998 winter wheat yields surged to a

record 46.9 bushels per harvested acre, 5 percent above the previous record yield in 1997. Wheat grown in the United States is either "winter wheat," or "spring wheat" depending on the season it is planted.

Winter wheat varieties are sown in the fall and usually become established before going dormant when cold weather arrives. In the spring, they resume growth and grow rapidly until summer harvest. Winter wheat production accounts for over three-fourths of the total U.S. wheat crop. Virtually all hard red winter (HRW) wheat States planted less wheat in 1998, with Oklahoma's wheat area going unchanged. The 1998 wheat area in Kansas was down 700,000 acres from 1997, its lowest level since 1988. Spring wheat varieties are planted in the spring, when the ground is workable, and grow continuously until harvest in late summer or fall.

Agricultural Productivity and Efficiency in Russia and Ukraine: Building on a Decade of Reform *(AER 813)*

www.ers.usda.gov/publications/aer813

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This study examines the impact of agriculture-specific and economywide institutional reform in Russia and Ukraine on the productivity and efficiency of agricultural production. Production in the agricultural sector in Russia and Ukraine has fallen since reforms began in 1992. The decline is to a certain extent an inevitable result of reform as input and output prices realign to world prices. However, some of the decline is due to incomplete agriculture-specific and economywide institutional reform. The analysis shows that Russia and Ukraine have the potential to increase grain exports significantly if reforms are implemented.

Russia and Ukraine have undergone rapid economic and political changes since they became independent in 1992 and began to pursue economic reforms. In both countries, the economywide reforms have led to steep declines in per capita income, which has only recently started to

rebound. Agricultural production and trade patterns also changed dramatically. Grain production fell by 46 percent from 1988-90 to 1998-2000, and similar declines were observed for other crops and livestock. From 1992 to 2000, net grain imports fell from 10 percent of world grain imports to less than half of 1 percent. In contrast, since reforms began, Russia has become a significant meat importer. In 2001, Russia's meat imports totaled 2.5 million metric tons (mt), about 19 percent of total world meat imports by volume. U.S. poultry meat exports to Russia were slightly over 1 million mt in 2001, accounting for about 79 percent of total Russian poultry imports and 33 percent of total U.S. poultry exports.

The transformation of the agricultural sector began with the general reform programs in 1992. Some of the proposed reforms were agriculture-specific, such as bankruptcy procedures for insolvent farms and land reform, but they were not implemented early on. The reforms that affected agriculture the most were economywide, such as price and trade reform, as

well as institutional reforms such as privatization. The expectation was that output would contract initially as subsidies were eliminated, but eventually recover as farm managers increased their productivity, eventually leading to an increase in exports. The actual result of reforms to date has been a large drop in production, but no corresponding rise in output or productivity. This report shows that several measures of productivity and efficiency have declined since reform began.

This study argues that the productivity decline is due to incomplete reform. The price and trade reforms have been fully implemented, but agriculture-specific and economywide institutional reforms have been only partially implemented.

Agriculture-specific reforms not yet fully implemented include: Bankrupting insolvent Russian and Ukrainian farms. Currently, farms can avoid bankruptcy simply by rolling over their debt. By removing the threat of bankruptcy, this practice eliminates an incentive for farmers to produce efficiently.

The Changing Landscape of U.S. Milk Production *(SB 978)*

www.ers.usda.gov/publications/sb978

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The dairy industry underwent dramatic restructuring in the last 50 years. The 1997 U.S. Department of Agriculture report by Manchester and Blayney, *The Structure of Dairy Markets: Past, Present, Future*, described selected dairy product markets, firms in the markets, and changes in the markets and firms from 1975 to 1999.

This report provides a similar examination of milk production. Structural changes in milk production are a result of long-term evolutionary processes such as adoption of technological innovations, changes in the production system, and specialization. The key features of milk production examined in this report are the quantity of milk produced, and the loca-

tion, number, size, and business organization of dairy farms.

Total U.S. milk production in 2000 was about 167.7 billion pounds, about 45 percent more than in 1975. Milk was produced in every State, but long-term milk production growth in California and more recent production growth elsewhere (for instance, southern Idaho, eastern New Mexico, eastern Washington State, and southwestern Kansas) changed the landscape of production. The number of farms with milk cows as well as the number of specialized dairy farms declined dramatically, while the herd size grew. The noticeable changes in the number and size of dairy farms were not matched by any major changes in business organization (ownership). Commercial dairy farms continue to be owned and operated mainly by individuals and families.

Regional milk production shares generally were unchanged over the 1975-2000 period, with the Mountain and Pacific shares growing, while the remaining regional shares were relatively unchanged or at best increasing slowly.

Most dairy farms were still located in the traditional regions (Northeast, Lake States, and Corn Belt). In an industry with a great increase in milk output per animal, a more important regional issue is the location of the cows. A general decline in the shares of the milking cow herd (or at best a slow growth) describes all regions except the Southern Plains, Mountain, and Pacific. Marked differences in milk production per cow between western regions and the rest of the country have emerged since the mid-1980s. Individual or family dairy farm ownership dominates in all

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U.S. Red Meat & Poultry Exports May Hit Record Levels in 2003

Total U.S. meat exports are expected to increase nearly 9 percent in 2003 from weak 2002 levels and may approach record measures, likely bolstered by a resolution of recent food safety issues and a stronger world economy. In contrast, total 2002 meat exports will likely decline 8-9 percent from the 2001 record as a result of the strong dollar, slow world economic growth, and animal disease and food safety concerns. *Dale Leuck; (202) 694-5186; djlleuck@ers.usda.gov*

Corn & Soybean Plantings Change Little from Spring Intentions

Planted area for the eight major U.S. field crops (corn, sorghum, barley, oats, soybeans, wheat, cotton, and rice) is estimated at 249.1 million acres in 2002, up slightly from last year, based on USDA's Acreage report. Increases in corn, wheat, barley, and oats are partially offset by decreases in soybeans, cotton, rice, and sorghum. Hay area is estimated up more than 1 million acres. *William Chambers; (202) 694-5312; chambers@ers.usda.gov*

U.S. Wheat Output and Exports to Decline in 2002/03

Prospects for the lowest U.S. wheat exports in more than 30 years are dominating the 2002/03 U.S. wheat outlook. Smaller U.S. supplies, shrinking global imports, and intense competition are combining to reduce U.S. exports. Despite a further drop in U.S. ending stocks this year, bleak export prospects dampen the price advantages from declining stocks. Projected price range for 2002/03 is \$2.75-\$3.35 per bushel. *Gary Vocke; (202) 694-5285; gvocke@ers.usda.gov*

Is There a Tobacco Quota Buyout in the Future?

Several tobacco buyout bills have been submitted in Congress that would modify the tobacco program and provide for government purchase of quota from growers or other quota owners. Declining demand for tobacco is limiting the amount of quota available, and use of marketing contracts is reducing the amount of tobacco eligible for price support. Some growers

seem ready to accept buyouts and give up price support for greater freedom in production and marketing decisions.

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Rural Residential Land Use: Tracking Its Growth

Among the most rapidly growing land uses in the United States is land for rural residences. Residential land use in rural areas has increased more rapidly than in urban areas, in percentage terms and in absolute numbers. While land in residential use in rural areas is a small proportion of total U.S. land use, this phenomenon has implications for farmland prices and the availability of land for agriculture and forestry, and can affect rural amenities and the rural environment. *Marlow Vesterby; (202) 694-5528; vesterby@ers.usda.gov*

The African Growth and Opportunity Act: How Much Opportunity?

For Sub-Saharan Africa (SSA), trade could play a crucial role in economic development. To help create incentives for SSA countries to implement domestic economic and political reforms and improve market opportunities, Congress passed the African Growth and Opportunity Act (AGOA) in May 2000. AGOA provides preferential access to U.S. markets for designated Sub-Saharan countries and improved access to credit and technical expertise. *Stacey Rosen; (202) 694-5164; slrosen@ers.usda.gov*

The Services Sector: Its Role in World Food Production & Trade

Trade in services is growing faster than merchandise trade. In the United States and other developed economies the services sector accounts for more than two-thirds of gross domestic product. The food system is increasingly affected by service sector growth—a growing share of consumers' food expenditures and farmers' input costs are for services. It may be time to shift the focus of policy reform from agricultural production to the broader food system. *William T. Coyle; (202) 694-5216; wcoyle@ers.usda.gov*

Trade Remedy Laws & Agriculture

Governments of industrialized nations

have long employed three basic trade remedies—countervailing duties, antidumping provisions, and safeguards—against imports causing injury to domestic industry. The Uruguay Round of global trade negotiations attempted to discipline inappropriate use of these measures, but they are increasingly employed by World Trade Organization (WTO) members against value-added agricultural products. U.S. agriculture has substantial interest in the outcome of WTO negotiations on these measures in the Doha Round.

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Assessing the Economic Well-Being of Farm Households

While farm income or commodity prices are often cited as indicators of the economic well-being of farm households, the resulting picture is certainly incomplete and most likely distorted. A comprehensive assessment of well-being must consider household wealth as well as income and consumption. Nearly half of all farm operator households had both higher income and higher wealth than all U.S. households in 2000. *Ashok Mishra; (202) 694-5580; amishra@ers.usda.gov*

USDA administers 15 domestic food assistance programs. The programs served about one in six Americans at some point during 2001 and accounted for about half of total USDA outlays. ERS's Food Assistance and Nutrition Research Program has created the Issues in Food Assistance series to address a variety of topics related to the USDA food assistance programs. Issues briefs that are currently available cover changes in the Child and Adult Care Food Program, food insecurity, and the standard deduction in the food stamp benefit formula. Upcoming briefs will cover such topics as low-income rural Americans, private food aid (food pantries, food kitchens, etc.), low-income families, unemployment, the U.S. economy, and self-sufficiency among former food assistance receivers.

Program Targeting: Effects of Reimbursement Tiering on the Child and Adult Care Food Program (26-1)

A 1995 study of the family child care homes portion of the Child and Adult Care Food Program (CACFP) found that nearly 80 percent of children served came from middle and higher income families. To refocus the program on low-income children, the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA) mandated an income-targeted meal reimbursement structure and called for a study of its effects. The U.S. Department of Agriculture (USDA) contracted with Abt Associates Inc., for a study of the effects of tiered meal reimbursement on the family child care homes portion of the CACFP. This comprehensive study was based on administrative data and nationally representative samples

of participating family child care homes, their sponsoring organizations, and the parents of the children they served.

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Reducing Food Insecurity in the United States: Assessing Progress Toward a National Objective (26-2)

The U.S. Government set an objective of reducing the rate of food insecurity of the Nation's households to half of its 1995 level by 2010. Is progress through 2000 on track to reaching this target? What factors will affect success in achieving it?

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The Standard Deduction in the Food Stamp Benefit Formula (26-3)

The standard deduction is an important but inconspicuous component of the Food Stamp Program's benefit formula. This deduction is a fixed dollar amount subtracted from household cash income before a family's benefit allotment is determined. The deduction is designed to compensate for certain essential expenses that may reduce the income available for food purchases. The standard deduction greatly increases the average food stamp benefit amount.

For almost two decades, lawmakers left the standard deduction unchanged as a fixed dollar amount per household, except for inflation adjustments in some years (these cost-of-living adjustments were eliminated in 1996). In 2001 and 2002, however, the standard deduction played an important role in proposed legislative changes during the reauthorization of the Food Stamp Program. This issue brief

explains the role of the standard deduction in the food stamp benefit formula and analyzes options for changing the level of the standard deduction.

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Milk *from page 6*

regions and, if partnerships (many likely involving family members) are included, the share in the two categories jumped to well over 90 percent in every region.

Today's production structure is the foundation for future milk production. As the 20th century ended, concentration and industrialization of agricultural industries became widely debated topics. Dairy

farming is more industrialized today than previously, and prospects for the continuation of that process exist but are not totally unconstrained.

Environmental concerns are increasing since several key milk-producing areas are in environmentally sensitive locations. Milk production concentrated in particular geographic areas may be disrupted by

adverse weather conditions, such as El Niño or the severe cold weather in upstate New York in early 2000. The importance of larger dairy operations and the continued use of many different milk production systems are likely to continue into the foreseeable future—trends suggesting structural change in the dairy industry will remain a topic of interest.

Re-Engineering the Welfare System—A Study of Administrative Changes to the Food Stamp Program: Final Report *(FANRR 17)*

www.ers.usda.gov/publications/fanrr17

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All States in a recent study undertook at least one “re-engineering” activity in their Food Stamp Programs (FSPs) as a result of the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA). In addition, 35 States implemented changes in 3 or more re-engineering categories, while 24 States planned changes for FY 2000 in 2 or more categories. PRWORA dramatically changed the systems that provide cash assistance and food stamps to low-income Americans.

Along with mandatory changes in food stamp eligibility, States were given greater flexibility to administer their programs to meet their unique needs. While States had begun changing the way program services were delivered before passage of welfare reform legislation, PRWORA provided additional opportunities for them to “re-engineer” FSPs. The purpose of the study was to examine State-level administrative changes to FSPs as a result of PRWORA, both those made before fiscal year (FY) 2000 and those planned for FY 2000.

To facilitate analysis of the broad array of State FSP re-engineering changes, the information gathered for this study was categorized into six subject areas, as follows:

1. Changes in State organizational structure;
2. Changes in the role of the caseworker;
3. Efforts to improve program accessibility and client certification;
4. Changes in client tracking and accountability systems;
5. Attempts to conform the FSP and TANF program rules; and
6. Efforts to increase program monitoring and evaluation.

The major research questions driving the study were:

- To what extent have States implemented administrative or operational changes to their FSPs from the passage of PRWORA through FY 1999?
- To what extent were States planning to make changes to their FSP administrative practices or program operations during FY 2000?
- What were the primary motivating factors identified by States for making administrative and operational changes to their FSPs, and to what extent did the re-engineering efforts require the approval of different branches of government?
- How did efforts to re-engineer FSPs vary between States with county-administered programs and those who administer their FSPs at the State level?

Overview of the Study Methodology and Organization of the Final Report

A total of 49 States and the District of Columbia agreed to participate in the study. Data were collected from States by a three-step process. First, States were asked to provide documents that contained descriptions of their re-engineering efforts, such as budget proposals, strategic planning documents, and legislative initiatives. A total of 24 States were able to provide these documents, and data for each of the 6 re-engineering categories were abstracted from them. Second, all States in the study participated in a followup telephone survey, either to clarify data in the descriptive documents or to provide data not available through written sources. Finally, a series of six case studies was conducted to examine local implementation of re-engineering efforts. This report presents the findings from the data abstraction process and the followup survey.

The report is organized into two sections. Section I is divided into four chapters. Chapter I provides an overview of the study and discusses the methodology used for data collection and analysis. Findings from the study are organized into chapters II and III, with chapter II providing “the big picture” of State re-engineering efforts

and chapter III examining findings within each of the six categories of re-engineering change. Chapter IV provides a summary of key findings and implications for future research. Section II presents data from the case study reports. The data collection instrument, *Re-engineering the Welfare System—A Study of Administrative Changes to the Food Stamp Program: State Data Collection Instrument*, can be found at: www.ers.usda.gov/publications/efan01009

Summary of Key Findings on State Re-engineering Efforts

All the States included in the study undertook at least one re-engineering activity as a result of PRWORA, with many States implementing and planning reengineering efforts in more than one category. Thirty-five States implemented changes in 3 or more re-engineering categories, while 24 States planned changes for FY 2000 in 2 or more categories.

Because State FSP agencies are likely to have limited resources, activities in multiple re-engineering categories might not be expected. The fact that 35 States (70 percent) implemented activities falling into 3 or more categories shows the importance of FSP re-engineering to State program administrators.

Additional key findings:

- A significant effort was focused on improving access to the FSP. Thirty-nine of the 50 States (78 percent) implemented changes to improve program accessibility. In addition, 28 States planned to implement changes in FY 2000. This may be related to the fact that States have become concerned about the decline of FSP case-loads since welfare reform.
- With the opportunity to bring FSPs into conformity with TANF programs, it was expected that States would take steps to consolidate program functions by changing their organizational structures. Thirty-four States (68 percent) took steps to conform TANF and FSP rules, and 11 States reported changing their organizational

Continued on page 10

Re-engineering *from page 9*

structures. However, only three cited conforming TANF and FSP as the goal of their organizational changes. It would appear that PRWORA had a modest impact on changing organizational structures of FSP offices.

- Twenty-four States implemented increased program monitoring and evaluation, while 15 States planned to implement some form of monitoring and evaluation in FY 2000. FSP client participation rates were the primary focus of increased monitoring, followed by tracking and evaluating FSP client satisfaction with program services and efforts to improve program accessibility.

- County-administered States (those in which FSP administration has been devolved to the county) were expected to show less re-engineering activity at the State level—the level of this study—than those whose FSPs were State-administered, since it was assumed that re-engineering efforts by the former would be at the county level. In fact, 87 percent of county-administered States undertook changes in three or more re-engineering categories, as compared with 67 percent of the State-administered States. In addition, almost all (92 percent) of the county-administered States undertook changes to improve program accessibility.

Data from this study provide a thorough overview of the administrative and operational changes States have made or were planning to make to their FSPs in response to welfare reform. These data provide baseline information about program changes that can be used for future evaluations of the consequences of reengineering efforts. In addition, this report can be used by State FSP administrators planning changes in a particular category to help generate ideas about approaches that may work for their State.

Consolidated Markets, Brand Competition, and Orange Juice Prices *(AIB 747-06)*

www.ers.usda.gov/publications/aib74706

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In the United States, no single orange grower produces enough product to influence the price he or she receives in the market, nor does any group of consumers purchase enough product to influence the price they pay. However, between those two endpoints in the marketing system, the processing, packaging, and distribution stages of the orange juice supply chain have become increasingly concentrated, with several companies controlling large shares of the orange juice market at different stages along the supply chain.

This paper examines how consolidation in the marketing system affects prices for orange juice. It isolates the pricing behavior of brand marketers, wholesalers, and retailers by observing the retail prices for specific orange juice products, including leading national brands and private label brands, in 54 U.S. markets over a one-year period. The data provided little compelling evidence that consolidated markets engaged in non-competitive pricing behavior. Increased brand competition, particularly between private labels and leading national brands, did, however, appear to lower average market prices.

There are far fewer sellers and buyers along the orange juice supply chain today than there were only 10 years ago. This paper presents comparisons of pricing behavior in 1990 between markets more advanced in the marketing consolidation process and markets far less so. The findings indicate that retail orange juice prices were generally lower in markets where a few grocery chains controlled large shares of the area grocery market. We also found lower prices in markets where large grocery wholesalers and/or integrated retailers dominated market sales.

Also observed from this data was an apparent relationship between private label products in a market and lower prices for leading national orange juice brands. Related to this, price increases were more pronounced in areas with strong private label competition, and this appeared to reflect smaller cost-to-price margins in these markets. These smaller margins meant there was less of a buffer for retailers or brand producers to hold prices steady when grower prices increased with the freeze-induced commodity shortage.

While prices appeared to be higher in markets where average household incomes were high, these findings were less pronounced. Taken together, the data show how consolidation along the orange juice supply chain, such as occurred over

much of the 1990s, could have contributed to lower market prices. Also apparent in this data is some indication that diminished competition, particularly diminished private label competition, leads to higher market prices.

Since the period of this analysis, there has been more widespread consolidation of grocery retail and wholesale operations, and private label/store-brand products have flourished. Consumer preferences have substantially shifted from frozen to refrigerated juice varieties, and with this shift, brand market shares have also changed. So, while it appears that the cost-reducing forces have outweighed the anti-competitive forces as consolidation has advanced in the orange juice supply chain, continuing consolidation has not diminished the potential that anti-competitive forces may push up retail orange juice prices in the future.

Also Off Press

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In addition to the reports fully summarized in this issue of ERS Information, the following reports were recently released.

Fruit and Tree Nuts Outlook (7/23)

The index of prices received by growers increased seasonally, and was above the previous two years for the first time this season. The higher index in May strongly reflected the higher orange prices as marketing ended for navel oranges and supplies were tight. In June, grape marketing increased as orange and strawberry supplies in the market declined. The Consumer Price Index for fresh fruit continued to rise this spring, averaging higher than the last 2 years. Prices were higher for all fresh fruit in April and May than a year ago.

Livestock, Dairy, and Poultry Outlook (7/16)

Total red meat and poultry production is expected to be about 85.1 billion pounds this year and may decline slightly in 2003. This year's large meat production, combined with an 8-9 percent decline in exports and a 2-3 percent increase in imports, is resulting in an abundant supply of meats for domestic consumption.

Wheat Outlook (7/15)

Projected 2002/03 ending stocks of wheat are down 35 million bushels from last month as lower production more than offsets reduced domestic use and higher reported carryin stocks. Forecast winter

wheat production is 60 million bushels below last month due to lower yields and reduced area.

Feed Outlook (7/15)

The June Acreage report and the July Crop Production report were major factors shaping the July outlook. Planted area for corn, barley, and oats were lower than spring intentions, while planted area for sorghum was higher. Survey-based yield estimates for corn and sorghum will be made available in August.

Cotton and Wool Outlook (7/12)

USDA's forecast for 2002/03 indicates that global cotton stocks will decline for the first time in 2 seasons as lower production and record use are projected. World cotton ending stocks are forecast at 41.2 million bales for 2002/03, 12 percent or nearly 6 million bales below a year earlier and the lowest since 1995/96.

Rice Outlook (7/12)

Total U.S. rice supplies for market year 2002/03 were lowered 8.4 million hundredweight (cwt) to 253.3 million (rough basis), fractionally below a year earlier's record. The production forecast was lowered 4 million cwt to 204 million based on smaller plantings.

Oil Crops Outlook (7/12)

Actual 2002 soybean plantings for the nation were 73.0 million acres, which vary little from the March intentions. Assuming a return to average summer conditions, a soybean yield of 39.7 bushels per acre is anticipated. Based on a harvested area estimate of 72.0 million acres, 2002 soybean production is forecast at 2,860 million bushels, compared with the record 2001 crop of 2,891 million.

U.S. Agricultural Trade Update (6/21)

A \$400-million decrease in U.S. agricultural exports in April compared with March, sharply reduced October-April 2002 export growth. Fiscal 2002 exports are \$33 billion, just 2.4 percent more than in the same period of 2001. In contrast, cumulative U.S. agricultural imports continued increasing in April, rising nearly \$200 million to equal \$23.9 billion.

Vegetables and Melons Outlook (6/20)

Shipping-point prices for fresh market vegetables averaged about 10 percent below a year earlier during the second quarter (Apr.-June). Shipment volume during the second quarter will likely exceed that of a year earlier as smaller marketings during April will be outweighed by stronger volume in May and June.

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