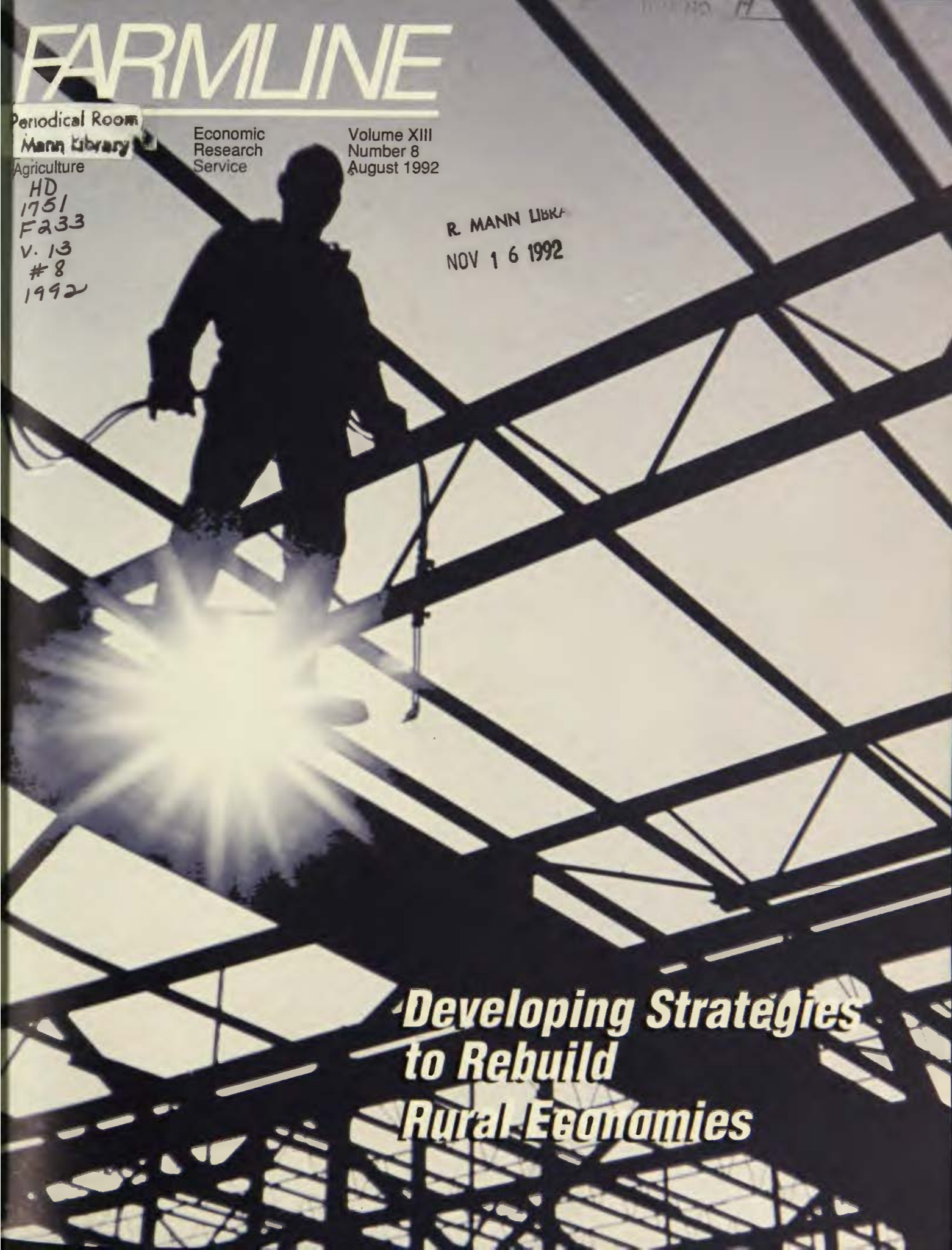
FARMLINE

Economic
Research
Service

Volume XIII
Number 8
August 1992



Developing Strategies to Rebuild Rural Economies

Editor
Priscilla B. Glynn

Staff Writers
Mary Maher
Doug Martinez
Carol Lee Morgan

Editorial Assistant
Martha Evans

Art Director
Barbara Allen

Publications Supervisor
Jack Harrison

(202) 219-0494

FARMLINE (ISSN 0270-5672) is published 11 times a year by USDA's Economic Research Service. Send questions, requests, and editorial comments to *FARMLINE*, Room 228, USDA, 1301 New York Avenue NW, Washington, DC 20005-4789.

Please include your mailing label with change-of-address and other requests related to your subscription.

Subscriber price is $12 per year to U.S. addresses ($15 foreign). Individual copies are $8. For fast, personal service, call our order desk toll-free at 1-800-999-6779 (in the United States and Canada; other areas please call 301-725-7937), and charge your order to MasterCard or VISA. When ordering by mail, make your check or money order payable to ERS-NASS and send to: ERS-NASS, P.O. Box 1608, Rockville, MD 20849-1608. Ask for *FARMLINE*. Include your complete address with ZIP code and daytime telephone number. Sorry, but refunds cannot be issued.

Use of commercial or trade names does not imply approval or endorsement by USDA.

PERSPECTIVES

Throughout the past decade, the global economy has been transformed by internationalization of markets, swift development of new information and production technologies, and a continuing decline in the importance of natural resource industries as rural employers. "So far, the new economy has been primarily an urban one," says economist David McGranahan of USDA's Economic Research Service.

The major issue confronting many rural areas in the 1990's is whether they will be able to carve out economic niches to replace those lost in the 1980's. "The past decade was difficult for rural areas," McGranahan explains. "Unemployment remained high, real earnings showed little overall growth, and many of the better educated young adults left their rural homes to pursue urban careers."

Rural per capita incomes stagnated in the 1980's, and the urban-rural income gap widened, he notes. Although the most recent recession narrowed the gap between rural and urban unemployment, disparity in earnings and outmigration of better educated rural youth persisted in 1990.

The critical problems of rural areas appear to stem from minimal participation in the new economy, McGranahan says. Rural areas have historically relied on branch manufacturing plants for new jobs—but in the past decade, national employment in such plants declined for the first time since World War II.

"Increasingly global markets and rapid technological change meant declining opportunities in traditional production occupations and new opportunities in management, research, and related occupations," he says. "Businesses offering such opportunities tended to locate in urban areas, largely because of their need for specialized skills and resources."

In addition, the remoteness of rural areas may make them unsuitable for these businesses, which depend on quick access to information, technology, and financial resources. "There is little evidence that face-to-face contacts have become less important with the advent of the new technologies," McGranahan says. "Indeed, information technology may have increased market volatility and technological change, making face-to-face contact more vital then ever."

What does all this mean for rural policy development? "Improving the educational levels of rural youth is critical to their future, because without significantly upgrading their skills there is a danger that rural labor will be competing with developing countries for low-skill production jobs," McGranahan says. "But this approach may not produce lasting benefits for the local rural areas—unless rural employers know how to take advantage of enhanced workforce skills."

The knowledge and skills of rural business owners and managers also need to be upgraded, he says. Providing an information-rich environment that those in rural areas can use to learn about emerging economic opportunities, new business methods, and changing markets is another key to rural viability.

Finally—given the rapidly changing nature of economic opportunities—rural development strategies with a decentralized, flexible character seem most likely to be effective, McGranahan says.

— Priscilla B. Glynn

FARMLINE

AGRICULTURE...NATURAL RESOURCES...RURAL DEVELOPMENT
Practical economic intelligence from USDA's Economic Research Service

FEATURES

DEPARTMENTS

Developing Strategies To Rebuild Rural Economies

Across the United States, policymakers are grappling with the ongoing challenge of revitalizing rural economies.

"During the past decade, leadership in rural development has gravitated toward State governments," explains social science researcher David Sears of USDA's Economic Research Service (ERS). And, however many rural-related programs a State may have, it might well benefit from bringing the key players in its government together to consider how best to organize—or reorganize—the resources devoted to rural areas.

"If these people all sat down one day and asked themselves what they could, or should, do to stimulate rural economic development within their State, they'd have a number of choices to make," Sears says.

In the spring and summer of 1990, Sears, together with economists John Redman (also of ERS), Richard Gardner (with the Idaho Governor's Office), and Stephen Adams (of the Maine State Planning Office), had the chance to observe top policy teams from 10 States addressing the substantive and organizational questions surrounding rural development policy.

There is no "right" way for a State to organize itself to promote rural economic development.

Together with other rural development specialists from across the Nation, the four analysts served as faculty and coaches for a rural policy academy, held under the auspices of the Council of Governors' Policy Advisors. There they watched representatives from Arkansas, California, Iowa, Maine, Michigan, Mississippi, Missouri, North Dakota, Pennsylvania, and Wyoming attempt to work out ways to strengthen the rural economies of their States.

The experience led the analysts to develop some effective approaches that State policymakers across the Nation might take to deal with the key issues that confront them in formulating initiatives for rural economic development.

Sears and his fellow analysts concluded that there is no one "right" way for a State to organize itself to promote rural economic development. On the other hand, there are certainly some ways that offer more promise than others. "Sound rural development initiatives must be rooted in an individual State's economic, social, cultural, organizational, and political realities," Sears notes. "What works well in one State might not in another."

Getting Started

So how can States go about invigorating their rural economies?

Many businesses located in rural areas, such as this gravel and sand operation and the masonry outfit on the opposite page, are related to the construction industry

All States have done some thinking about rural development strategies and carried out some development activities, Sears says. Many of them also have State plans, which usually include major economic development components. In addition, cities, counties, regional councils, universities, or special State commissions often have conducted studies on one or more aspects of the State's rural economy. "Consequently, in any State, a variety of documents are available that lay out the previous research and thinking on some or all aspects of rural development," Sears says. "The Wyoming policy team, for example, identified over 20 documents containing data and analysis on important aspects of the State's economy."

Of course, not all of the previous work will provide useful information or insights. "The work may be out of date, based on weak data, no data, or faulty analysis, or suffer from other problems," Sears explains. "Nevertheless, a State that plans to launch a major rural development effort is likely to find it worthwhile to look carefully at any prior work and draw from it any usable information."

The State also should seriously consider conducting a detailed analysis of its economy, the analysts say, since actions that are grounded in solid analysis of the State's economic situation have a much better chance of achieving long-term benefits than quick reactions to crises.

The State's identification of its major economic problems and opportunities is likely to be most useful if it is based on up-to-date analysis. And for each key sector of the State's economy (including those of potential as well as current importance), State leaders will find it valuable to understand how that sector is positioned in the U.S. and world economies, and how that position limits or offers expansion opportunities.

For instance, who are the competitors? What are they doing? How do they resemble or differ from State firms in this sector in terms of productivity, technology, management, investment levels, wages and salaries, workforce quality and training, and product development? How are markets and technology changing in the State, across the Nation, and around the world?

The analysts also urge State policymakers to consider building on the State's existing economic base. "When formulating alternatives for economic development, there is often a strong temptation to shift from traditional to new activities, such as biotechnology, specialty commodities, and robotics," Sears notes. "But often a State would do well to continue its economic activities of recent years, only in a different way."

The most effective State efforts to enhance rural economies generally build on the basic foundations and comparative advantages of its current economy. "Many States are looking into opportunities offered by value-added agricultural products," Sears says. "For instance, the Iowa team proposed focusing on its food processing industry to add more value to the State's agricultural output, and the North Dakota team proposed devoting more attention to its energy byproduct industry as an adjunct to State oil production."

Rural development planners are likely to find it productive to ask themselves which institutions—in the private as well as the public sector—could contribute to the development and implementation of a rural economic strategy. "Planners may want to draw up a checklist of institutions to ensure that those critical to the strategy's success are involved in its development," Sears says. The North Dakota team identified over 100 public agencies and private organiza-

Urbanization provides business opportunities for some rural areas, especially those near large cities

tions working on economic development in that State.

Pertinent questions to be asked about candidate institutions include: Which ones are active in rural development? Which have proved to be effective? Which have potentially useful resources, such as funds and skills? Which are powerful, whose support might be critical to the success of a rural development plan? Which are entrepreneurial, flexible, and in touch with their clientele?

In order to carry out this type of analysis and strategy development, State planners may want to consider establishing partnerships with knowledgeable private sector parties. Very often the individuals and organizations with the most detailed understanding of what is going on in an industry are those working in it.

"Private sector involvement will also help the State avoid proposing policies or programs which are not well targeted to actual needs, or which could even be counterproductive," Sears adds. For example, if training is to be an essential element of a rural development strategy, then comments and suggestions from employers, trainers, and potential trainees should probably be obtained. Similarly, if improved health care is to form part of the strategy, information from medical personnel and those who rely on rural health services would be valuable.

The North Dakota team got very detailed information from manufacturers within that State. Nearly every manufacturer was contacted by a team member or other top-ranking official to learn about the problems and opportunities these firms face. The Governor himself even made a few visits. "In addition to the obvious goodwill such an effort can create, the information garnered through these visits has proved to be extremely useful to the team in designing its strategy," Sears says.

Political Support Crucial

The analysts caution that the success of a rural development strategy will depend as much on its political support as on its operational design. For instance, involving the Governor, top staff, and legislators in shaping the strategy can be vital to its success, since their leadership can help to forge a consensus on goals and actions among numerous organizations.

"North Dakota's success hinged very largely on having the active participation of the Governor's chief of staff and the legislative leaders of both parties," Sears explains. "Their commitment encouraged other key players, such as the Bank of North Dakota and the State universities, to participate fully in the rural development strategy."

Once the State has assembled a group of organizations and individuals to craft its rural economic strategy, the group will likely find it worthwhile to establish clear priorities. Such goals will help the group focus limited resources on actions that are most likely to stimulate the rural economy.

"Given the political and economic realities in most States, often the best approach

To Find Out More About Strategy Development. . .

The recommendations presented in this article are spelled out in detail in a new book entitled *Gearing Up for Success: Organizing a State for Rural Economic Development,* by Sears, Redman, Gardner, and Adams.

The book also lays out key choices a State must make in formulating a rural development plan, as well as the pros and cons of various answers that might be chosen. The book is replete with examples that underscore and clarify the general points covered.

It is available from the Aspen Institute (a nonprofit organization whose membership consists primarily of corporate executives) at (202) 736-5800.

would be to keep the long-term vision in mind, but devote immediate efforts to achieving short-term objectives that support the overall strategy," Sears says. "Pursuing limited objectives can lead to a string of small accomplishments that will encourage State rural development efforts."

Finally, evaluation can be a very effective component of a State's rural development strategy. "Evaluation can be used periodically to examine whether the strategy makes sense, or should be modified to increase its effectiveness," Sears says.

The analysts believe that such rigorous evaluation can yield large political dividends, since its presence may help convince decisionmakers that the resources will be used prudently. Moreover, if the evaluation can demonstrate that the strategy has produced positive results, it can bolster support for continued funding. ■

Based on information provided by David Sears and John Redman, Agriculture and Rural Economy Division, Economic Research Service, and by Richard Gardner, Idaho State Governor's Office, and Stephen Adams, Maine State Planning Office.

Top 10 States in Livestock Receipts

Top 10 States in Receipts for Cattle, Hogs, and Broilers, 1991

	Cattle and Calves		Hogs and Pigs		Broilers*	
		$ billion		*$ billion*		*$ billion*
1	Texas	6.16	Iowa	2.92	Arkansas	1.37
2	Nebraska	4.78	Illinois	1.17	Alabama	1.15
3	Kansas	4.27	Minnesota	0.91	Georgia	1.13
4	Colorado	2.24	Nebraska	0.88	North Carolina	0.78
5	Oklahoma	2.23	Indiana	0.83	Mississippi	0.58
6	Iowa	2.06	North Carolina	0.66	Texas	0.51
7	California	1.68	Missouri	0.53	Delaware	0.39
8	South Dakota	1.47	Ohio	0.42	Maryland	0.38
9	Minnesota	0.98	South Dakota	0.40	California	0.33
10	Wisconsin	0.92	Kansas	0.32	Virginia	0.31
	U.S. Total	**39.63**	**U.S. Total**	**11.06**	**U.S. Total**	**8.39**

* Broiler data is for year ending November 30, 1991.
Source: USDA, National Agricultural Statistics Service.

Farm Population Decline of 1980's Follows Long-Term Trend

Only about 2 out of every 100 Americans live on a farm, but 25 of every 100 reside in a rural area. (As defined by the U.S. Census Bureau, rural areas are places with fewer than 2,500 inhabitants or open-country areas.)

And despite the decline in the Nation's rural farm resident population during the 1980's, the overall number of Americans living in rural areas increased over the same decade.

"The number of persons living in areas that were rural in 1980 grew by 7.5 million during the 1980's," says sociologist Laarni Dacquel of USDA's Economic Research Service. "This increase of 12.6 percent compares with an increase of 7.2 percent, or 12.1 million persons, in the population of urban areas during the same period."

"Most employed farm residents no longer work primarily in farming."

She notes that some of the decade's increase in rural area residents was no doubt caused by the suburban expansion of urban areas into land that was rural in 1980.

"Between 1980 and 1990, by far the greatest rural area population growth—91.9 percent—occurred within metropolitan areas, which contain both urban and rural sections," says Dacquel. The rural portion of metropolitan areas grew 28.6 percent, an increase of 6.9 million persons. The number of rural residents outside metropolitan areas increased by only 1.7 percent, or about 608,000 persons. Metropolitan areas are comprised of one or more counties containing either a place with a minimum of 50,000 residents or a Census Bureau-defined urbanized area and a total metropolitan area population of at least 100,000 residents. Urbanized areas are settlements of 50,000 or more residents.

In contrast to rural population growth, the farm population dropped by nearly a fourth—24.1 percent—in the 1980's, with 1.5 million Americans moving off the farm.

"This means that the overall rate of decline among farm residents during the 1980's was essentially the same as that in the 1970's, when it was 25.4 percent," says Dacquel.

Dacquel and her colleague, geographer Don Dahmann of the U.S. Census Bureau, recently examined data from the Current Population Survey conducted by the Census Bureau. The most recent survey shows that in 1990, nearly 4.6 million persons lived on farms. That comes to 1.9 percent of the Nation's population. (The Census Bureau defines a farm as a place that sold agricultural products valued at $1,000 or more in

The Number of Persons Living on U.S. Farms Has Dropped Sharply Over the Past Century

*1980 and 1990 estimates use current farm definition.

the year preceding the survey. The relatively small number of farms located in urban areas was not included in its analysis.)

A Long-Term Decline

"Although the latest count of the number of Americans living on farms shows no significant change from the 1989 figure, the current level continues a long-term decline," says Dacquel.

In 1910, when the U.S. farm resident population reached its all-time decennial (every 10 years) peak of 32.1 million persons, about one-third (34.8 percent) of all Americans lived on farms. By 1930, the proportion on farms had dropped to one quarter of all Americans. In 1960, the percentage of Americans living on farms had fallen below 10 percent and by 1970 had dropped to about 5 percent.

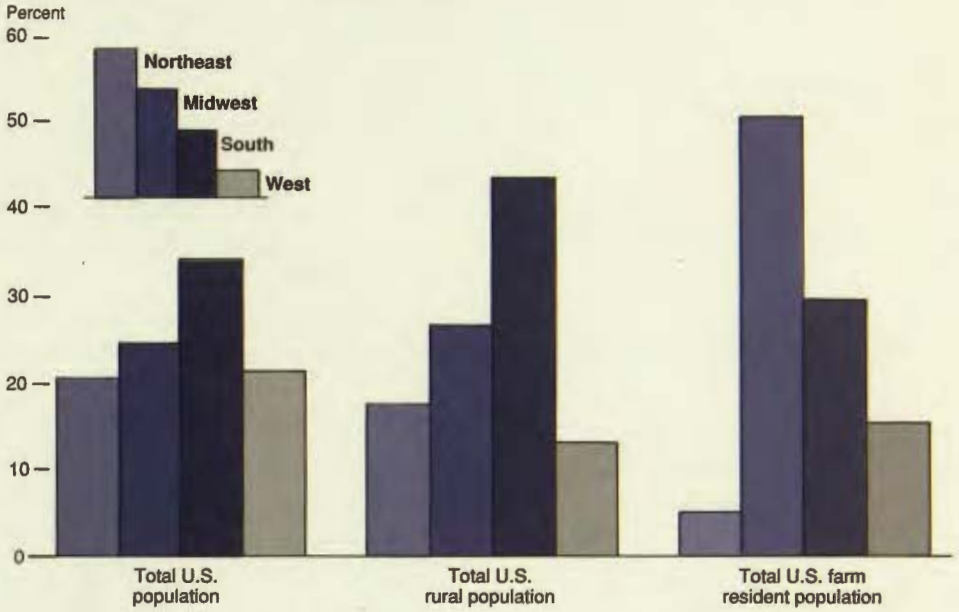
Overshadowing this trend, of course, is the rural-to-urban shift in population that started even earlier.

"Around the time of the 1890 census, when the Superintendent of the Census declared that the unsettled portion of the Nation was 'so broken into by isolated bodies of settlement that there can hardly be said to be a frontier line,' most Americans lived in decidedly rural settings," says Dacquel. "At that time, 64.9 percent of the Nation's 63 million persons lived in rural areas and 39.3 percent resided on farms."

Since then, the Nation's dominant type of settlement—in terms of where the largest number of people lived—shifted first from rural to urban, and then to metropolitan settlements. Early results of the 1990 census show that more Americans now reside in metropolitan areas of 1 million or more persons than in any other type of area.

In 1920, 51.2 percent of the population resided in urban areas, while 30.2 percent lived on farms. By 1950, Dacquel says, more than half (56.1 percent) of the Nation's population resided in metropolitan areas and only 15 percent lived on farms.

In 1990, the Midwest and the South Had the Highest Concentrations of Persons Living in Rural Areas and on Farms



"However, most rural farm residents continue to live outside metropolitan settlements," says Dacquel. In 1990, 73.6 percent of the Nation's 4.6 million rural farm residents lived in nonmetropolitan areas.

A Regional Concentration

The U.S. farm population is also concentrated in particular regions of the country.

"In fact, the Midwest was home to 50.5 percent of the Nation's farm population in 1990—about 2.3 million persons," says Dacquel. The Midwest includes the States of Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

The South contains the second largest number of farm residents—1.4 million, or 29.4 percent. The farm populations of the West and Northeast are considerably smaller—691,000 and 230,000 persons, respectively.

"Even though more farm residents live in the Midwest than in any other region, they still represent only 3.9 percent of that region's total population," says Dacquel. "This small proportion of total residents should not, however, be interpreted to mean that the farm resident population, or farming more generally, is of little significance in the Midwest."

For instance, when farms are considered as a geographic element, their importance in the Midwest becomes much more apparent, she says. The 1987 Census of Agriculture reported that at least half of the total land area of all but 2 of the Midwest's 12 States was in farmland, and half of the region's States have 80 percent or more of their land in farms: Nebraska has 92.4 percent; North Dakota, 90.9 percent; South Dakota, 90.8 percent; Kansas, 89.1 percent; Iowa, 88.3 percent; and Illinois, 80.1 percent.

"The current regional distribution of farm residents differs dramatically from that of only 40 years ago," says Dacquel. In 1950, the respective proportions of the Nation's farm residents living in the South and the

Midwest were virtually the reverse of their current distribution. At that time, the South was home to about half of all farm residents (51.6 percent, or 11.9 million persons), and the Midwest was home to about one-third (32.3 percent, or 7.4 million).

The Farm Exodus

Dacquel attributes the change in regional distribution of farm residents between 1950 and 1990 to the exceptionally large decline in the number of southern farm residents. Between 1950 and 1990, this number dropped from 11.9 to 1.4 million.

"The substantial loss of farm residents in the South accounts for 57.1 percent of the Nation's total net loss of 18.5 million farm residents during the period," says Dacquel.

She cautions that the data on farm residents may be misleading in some ways. Many people live on farms but do no farm work and, increasingly, many farmers and farm employees do not reside on farms.

"Most employed farm residents no longer work primarily in farming," says Dacquel. "As of 1990, about 55 percent of all employed farm residents worked mainly in nonfarm occupations, as measured by number of hours worked."

While 59.7 percent of the 1.5 million employed farm resident men worked solely or principally in farm occupations in 1990, only 22.1 percent of the 963,000 employed farm resident women worked primarily in farm-related occupations.

"And, contrary to the general image associating farm work with farm residence, only 34 percent of all persons engaged in farming as an occupation lived on farms in 1990," says Dacquel. "However, the tendency of persons employed in farm occupations to live off farms differed sharply between operator-managers and farm workers or other persons with farm-related occupations."

She says that 67.7 percent of farm operators or managers lived on farms, compared with 13.5 percent of persons employed as farm workers.

Dacquel goes on to say that the number of persons employed in farming has now declined to an estimated 3.3 million, or 2.8 percent of the 118 million workers in the United States. About 37.9 percent of all persons in farm occupations were operators or managers, and 62.1 percent were engaged as farm workers or in other farm-related occupations, such as nursery work, groundskeeping, or gardening.

Typically, farm resident workers are more often self-employed than workers living elsewhere. Among employed farm residents in 1990, 38.2 percent were self-employed, 3.7 percent were unpaid family workers, and 58.1 percent were wage and salary workers. This compares with only 8 percent self-employed, 0.2 percent unpaid family workers, and 91.8 percent wage and salary workers among nonfarm resident employees. Among farm resident men working primarily in agricultural industries, the self-employment rate was 72.7 percent.

Farm Income Higher

On the income side, farm residents appear to be doing better than they were just a few years ago. The $28,824 median income that 1990 farm resident households received during the 1989 calendar year was virtually the same as the $28,908 median

income of nonfarm resident households. But this current median income represents a significant gain for farm resident households compared with other households since 1987. At that time, the median was $24,129 for farm resident households and $26,026 for nonfarm households.

"Similarly, farm resident families lived in poverty no more frequently than nonfarm resident families, 9.6 percent compared with 10.3 percent," says Dacquel. The average poverty threshold for a family of four in 1989 was $12,675.

But there are some major differences in these types of households.

"Farm residents tend to be older than other Americans," says Dacquel. "The median age of persons who lived on farms in 1990 was 38.9 years, significantly higher than the 32.8 years for nonfarm residents."

Having a high median age is typical of a group whose numbers are declining. The proportion of adults who are middle age or older is much larger among farm residents than among nonfarm residents. Persons age 45 years or older made up 41.4 percent of farm residents, but only 30.8 percent of nonfarm residents.

Another significant difference between the farm and nonfarm population involves race and ethnic origin.

"The current farm resident population is overwhelmingly white," says Dacquel. In 1990, farm residents were 97.5 percent white, 1.5 percent black, and 1 percent other races. Nonfarm residents, in contrast, were 83.8 percent white, 12.5 percent black, and 3.7 percent other races.

As recently as 1960, the proportions of whites and blacks living on and off farms were roughly equal. At that time, 88.2 percent of farm residents were white and 11.0 percent were black. Of the nonfarm residents, 88.6 percent were white and 10.5 percent black.

"Farm residents in 1990 were also less often of Hispanic origin than nonfarm residents," says Dacquel. "Persons of Hispanic origin represented 2.7 percent of farm residents, but 8.6 percent of nonfarm residents." (Persons of Hispanic origin may be of any race.)

"In addition, male farm residents outnumber females," says Dacquel. "In 1990, there were 108 males for every 100 females living on farms, compared with 94 males for every 100 females residing off farms."

She says the relatively higher ratio of males to females on farms today is essentially the same as in 1920, when the male/female ratio was 109 to 100.

And persons residing on farms are much more likely to be married and living with their spouses than other Americans—69.5 percent compared with 55.3 percent.

"Farm women were more likely to be married and residing with their husbands than nonfarm women, 71 percent compared with 53 percent," says Dacquel. ■

Based primarily on information provided by sociologist Laarni Dacquel, Agriculture and Rural Economy Division, Economic Research Service.

Farm Real Estate Values Up Slightly in 1991

The average value of U.S. farm real estate increased 1 percent during 1991, the fifth consecutive annual rise.

The January 1, 1992, national average value of farmland and buildings was $685 per acre. This was 14 percent above the low of $599 in 1987 but still 17 percent below the record high of $823 set in 1982, according to economist Roger Hexem of USDA's Economic Research Service (ERS). The farm financial crisis of the mid-1980's caused a substantial decline in farmland values in most areas of the Nation.

Recent increases in values have been small, averaging only 1 to 2 percent nationwide in the past 3 years. Regional and State averages have varied more widely.

In real (inflation-adjusted) terms, the national average of farm real estate values fell 3 percent in 1991. Inflation for the year was 3.6 percent. Real values have been falling since 1981, Hexem says, and are now 49 percent below the peak level.

Average values for regions and States vary significantly.

What determines farmland values?

"Expected economic returns, interest rates, and inflation provide the basis for the prices that most buyers are willing to pay for farm real estate," Hexem says.

Several factors in 1991 did not support higher U.S. farmland values, he notes. Net cash income fell 8 percent and net farm income dropped 17 percent. Inflation-adjusted interest rates remained high, even though nominal rates declined. The previously declining farm debt-to-asset ratio leveled off.

Also, sluggish economic conditions lessened demand for farmland for nonagricultural uses, particularly near urban areas. And some areas of the country, mainly in the West, experienced severe drought.

"Beyond 1991, the uncertainties in regard to farmland values include the timing and strength of economic recovery and the consequent effects on interest and inflation rates," Hexem says. He adds that trade negotiations and economic conditions in importing countries are critical, because the export market represents the major opportunity for expanded demand for U.S. farm commodities.

The largest State increase in farmland values in 1991 occurred in West Virginia, with 15 percent. The largest declines took place

in Colorado and Wyoming: in both these States, values dropped 10 percent. California, the Nation's leading agricultural State, experienced a 1-percent decline in farm real estate values.

Regional averages ranged from 3-percent gains in the Corn Belt and Appalachia to 3-percent losses in the Southeast and the Delta States. Other gains were 2 percent in the Northern Plains and 1 percent in the Northeast, the Lake States, and the Mountain States. Other regional declines were 2 percent in the Southern Plains and 1 percent in the Pacific region.

Over the past 5 years, the highest State increases in farmland values were 53 percent in South Dakota and New Mexico, 50 percent in Iowa, 49 percent in Minnesota, and 42 percent in Nebraska. The biggest losses were 15 percent in Texas, 12 percent in Wyoming, and 6 percent in Utah.

Economic conditions in sectors other than agriculture affect farmland values. The declines in farmland values in Texas, Louisiana, and Oklahoma in the past decade were partly the result of hard times in the oil and gas business, Hexem notes.

This year, the two highest regional averages were $1,712 per acre in the Northeast and $1,212 in the Southeast. The two lowest were $288 in the Mountain region and $449 in the Northern Plains.

The annual land values report covers rental rates as well as farm real estate values. This past year, changes in cash rents varied within and among regions without any consistent pattern, Hexem says.

The highest cash rent averages for nonirrigated cropland were $104.60 per acre in Iowa, $103.30 in Illinois, and $101.50 in Florida. The highest averages for irrigated land were $179.60 in California, $128.10 in Arizona, and $114.30 in Idaho.

Pasture rental rates ranged from $44.40 per acre in Delaware to $3.60 in Wyoming.

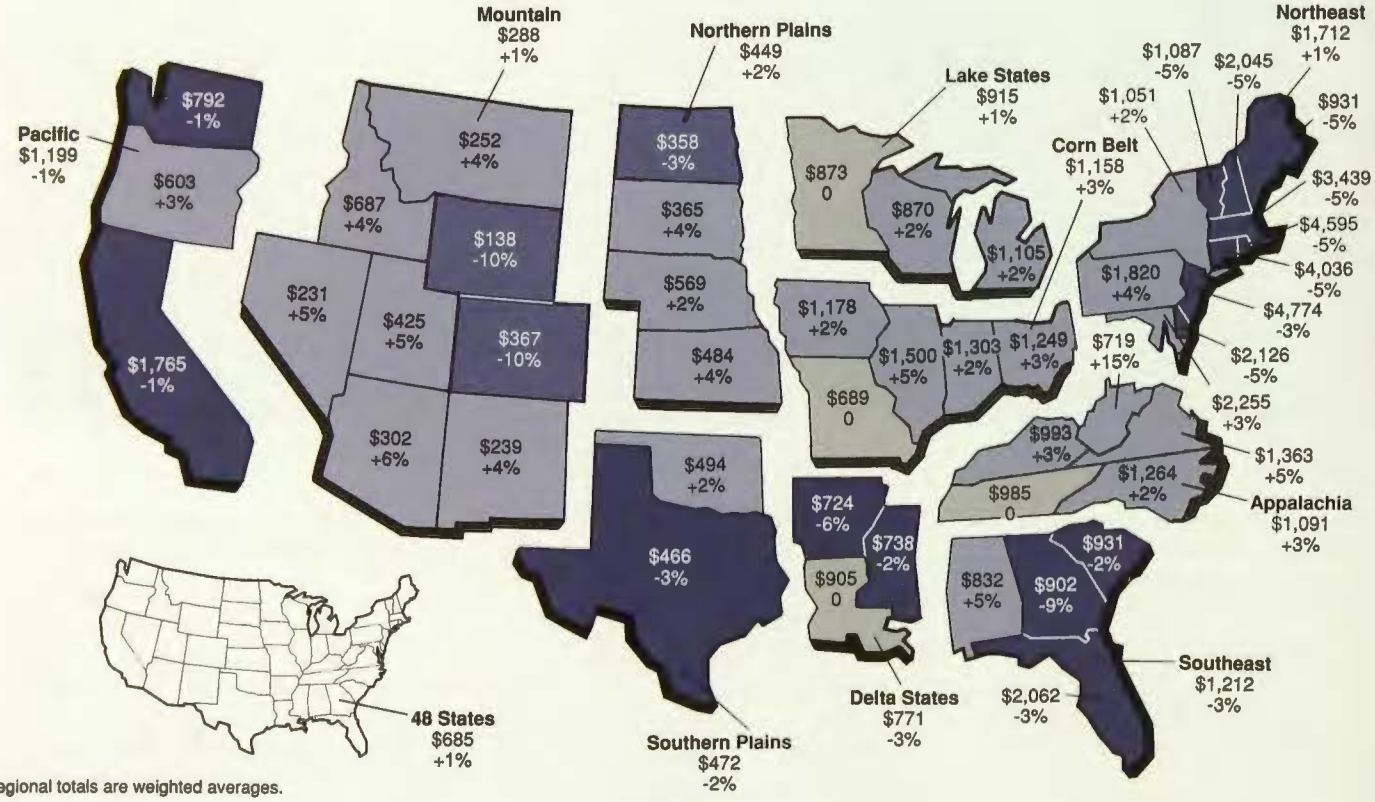
Average Per-Acre Value of Farm Real Estate, 1988-92[1]

State	As of Feb. 1		As of Jan. 1			
	1988	1989	1990	1991	1992	
			Dollars			*% change, 1991-92*
Northeast:	1,586	1,763	1,722	1,703	1,712	1
Maine	962	1,019	1,019	978	931	-5
New Hampshire	2,112	2,237	2,237	2,148	2,045	-5
Vermont	1,124	1,190	1,190	1,142	1,087	-5
Massachusetts	3,553	3,763	3,763	3,612	3,439	-5
Rhode Island	4,748	5,028	5,028	4,827	4,595	-5
Connecticut	4,171	4,417	4,417	4,240	4,036	-5
New York	993	1,024	974	1,031	1,051	2
New Jersey	3,969	4,543	4,634	4,912	4,774	-3
Pennsylvania	1,579	1,874	1,807	1,757	1,820	4
Delaware	1,765	2,058	2,259	2,248	2,126	-5
Maryland	2,261	2,462	2,420	2,196	2,255	3
Lake States:	788	819	841	906	915	1
Michigan	971	983	1,005	1,085	1,105	2
Wisconsin	826	846	803	853	870	2
Minnesota	700	745	805	873	873	0
Corn Belt:	1,003	1,100	1,096	1,129	1,158	3
Ohio	1,199	1,262	1,204	1,217	1,249	3
Indiana	1,158	1,244	1,244	1,275	1,303	2
Illinois	1,262	1,383	1,389	1,433	1,500	5
Iowa	947	1,101	1,102	1,157	1,178	2
Missouri	640	673	679	689	689	0
Northern Plains:	368	398	425	440	449	2
North Dakota	319	326	340	368	358	-3
South Dakota	269	291	328	351	365	4
Nebraska	457	523	550	556	569	2
Kansas	413	435	462	467	484	4
Appalachia:	1,037	1,077	1,111	1,059	1,091	3
Virginia	1,198	1,333	1,516	1,295	1,363	5
West Virginia	682	702	613	625	719	15
North Carolina	1,263	1,317	1,263	1,243	1,264	2
Kentucky	896	911	981	962	993	3
Tennessee	1,001	1,002	996	988	985	0
Southeast:	1,130	1,194	1,253	1,254	1,212	-3
South Carolina	871	939	909	948	931	-2
Georgia	920	998	1,012	995	902	-9
Florida	1,790	1,887	2,085	2,133	2,062	-3
Alabama	800	822	839	791	832	5
Delta States:	781	797	782	797	771	-3
Mississippi	697	713	728	754	738	-2
Arkansas	761	778	750	770	724	-6
Louisiana	940	954	915	905	905	0
Southern Plains:	531	516	495	482	472	-2
Oklahoma	480	521	497	486	494	2
Texas	544	515	495	481	466	-3
Mountain:	257	260	267	286	288	1
Montana	205	209	238	243	252	4
Idaho	572	595	661	659	687	4
Wyoming	147	142	149	153	138	-10
Colorado	369	367	358	410	367	-10
New Mexico	180	191	196	230	239	4
Arizona	279	274	263	285	302	6
Utah	425	421	389	403	425	5
Nevada	227	234	194	219	231	5
Pacific:	1,089	1,129	1,163	1,206	1,199	-1
Washington	739	757	779	798	792	-1
Oregon	542	535	571	583	603	3
California	1,575	1,657	1,704	1,787	1,765	-1
48 States	632	661	668	681	685	1

1. Nominal dollars. Details in *Agricultural Resources: Agricultural Land Values and Markets Situation and Outlook Report*, USDA, Economic Research Service, June 1992.

1991 Farmland Values Were Higher in 25 States, Lower in 19, and Unchanged in 4

$ average values in states and regions*
% change from Jan. 1991 to Jan. 1992



*Regional totals are weighted averages.

The farmland values and cash rent estimates come from the annual Agricultural Land Values Survey that is conducted near the beginning of each year for ERS by USDA's National Agricultural Statistics Service. The farmers and ranchers surveyed are asked to estimate the average value of farmland in their home counties—"the value at which farm or ranch land could be sold, at full market value, including the influence of nonagricultural factors." ■

Based primarily on information provided by economist Roger Hexem, Resources and Technology Division, Economic Research Service.

Number of Rural Doctors Has Increased

The number of medical doctors in the United States increased by 76 percent between 1970 and 1988, from 268,000 to 472,000.

Rural areas, however, still lagged behind urban areas in the ratio of doctors to total population, according to demographer Paul Frenzen of USDA's Economic Research Service.

In 1988, the ratio was 226 physicians for every 100,000 persons in metropolitan areas, but only 98 physicians per 100,000 persons in nonmetropolitan areas.

Physicians in nonmetro areas were least likely to locate in "rural counties." Those physicians who did locate in nonmetro areas preferred "urbanized remote counties" instead of counties close to metro areas. This reduced competition from physicians in metro areas.

A *metro* area is defined as a county or counties with a population of 50,000 or more and any adjoining counties that have a "metropolitan character." *Nonmetro* areas include all other counties. *Urbanized remote* counties are nonmetro counties with 20,000 or more urban residents that are not adjacent to metro areas. *Nonmetro rural* counties are nonmetro counties with fewer than 2,500 urban residents.

In 1988, there were 226 physicians for every 100,000 metro area residents, but only 98 for every 100,000 nonmetro residents.

The preference for urban locations is even more pronounced among specialists than among primary care physicians. More than half of all physicians in the United States are specialists, the most common types being surgeons, radiologists, anesthesiologists, pathologists, and psychiatrists.

There were 243,000 specialists in the United States in 1988. Of this total, 220,000 were in metro areas, while only 22,000 were in nonmetro areas. "Most physicians in nonmetro rural counties are primary care physicians, but more than half of the physicians in nonmetro urbanized remote counties are specialists," Frenzen says.

"By 1988, urbanized remote counties had eight times as many specialists as rural counties, and twice as many primary care physicians," Frenzen says. "Specialists are attracted to urbanized remote counties in part because these areas have become medical centers for regions outside major cities."

Why are physicians more attracted to urban areas than to rural ones?

For many of the same reasons other people are attracted to them, namely such amenities as cultural and recreational facilities. "In addition," Frenzen says, "the uneven distribution of physicians is partly due to the concentration of medical educational facilities, research activities, and specialized care in urban areas."

Most medical training facilities are located in urban areas. "Medical students often develop personal ties where they are trained, so they tend to stay in that area," Frenzen says.

Even though the number of nonmetro physicians is considerably smaller than the number of metro physicians, the nonmetro

physician count did improve during the 1980's—the ratio of physicians in nonmetro areas grew from 83 to 98 per 100,000 persons.

Education Programs Important

In the early 1970's, the National Health Service Corps (NHSC) was created to offer scholarships to medical students and later to other health care trainees. In exchange, the recipients agreed to work in rural areas or inner cities identified as Health Personnel Shortage Areas (HPSA's). After graduation, they worked in HPSA's for 1 year for each year of financial aid, with a minimum 2-year obligation. Over 16,500 health professionals were placed in federally designated HPSA's under the program.

Funding for the NHSC was drastically reduced during the 1980's, partly because a study done by the Graduate Medical Education National Advisory Committee for the Secretary of Health and Human Services projected an oversupply of physicians by 1990. Some Federal officials concluded that the rising number of physicians would make rural areas more attractive to physicians, since there would be increasing competition for jobs in urban areas.

Another study, by the RAND Corporation, found that many physicians moved into smaller towns during the 1970's. The study predicted that physicians would continue to do so in the future as the number of physicians rose.

Although the number of physicians in nonmetro areas did increase during the 1980's, 29 percent of the nonmetro population still lived in HPSA's in 1988. In contrast, only 9 percent of the metro population lived in HPSA's.

In 1988, there were 1,307 HPSA's in nonmetro areas. It was estimated that these areas would need nearly 1,800 additional primary care physicians to lose the HPSA designation.

The Government recently increased funding for the NHSC in response to the continuing need for physicians in underserved areas. The NHSC budget totaled $11.3 million in fiscal year 1990, and rose to $48.7 million in fiscal 1991.

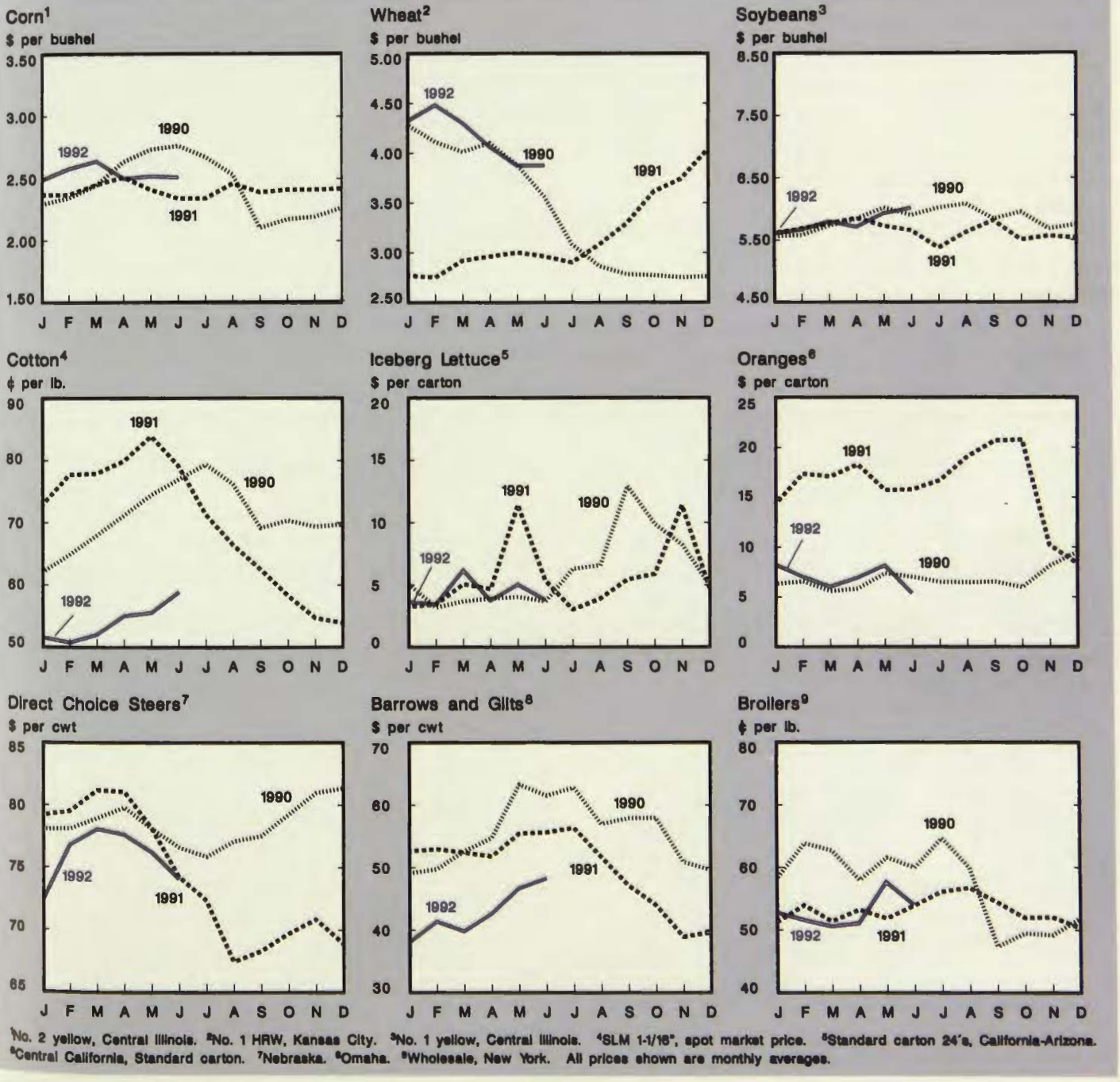
The NHSC scholarship program has been replaced by a loan repayment program. Graduates of medical schools and other health professional programs can now arrange to have their educational loans repaid by the Government in return for working in an HPSA. Loans are repaid at a rate of up to $20,000 for each year of work in an HPSA, and participants must serve from 2 to 4 years.

In addition, a Medicare reimbursement bonus for physicians who work in HPSA's has been put into effect. This bonus, originally set at 5 percent, was increased to 10 percent on January 1, 1991. ■

Based on information supplied by demographer Paul Frenzen, Agriculture and Rural Economy Division, Economic Research Service.

Monthly Price Monitor

USDA's June 1992 inflation-adjusted index of farm prices, from the National Agricultural Statistics Service's Agricultural Prices report, was 1.4% below May and was 8.6% below a year earlier. Wholesale market prices follow. Corn held fairly steady at $2.51 per bushel, and wheat held steady at $3.88 per bushel. Soybeans, at $6.03 per bushel, reached their highest point since August 1990. Cotton prices rose to 58.8¢ per pound, the highest level since September 1991. Lettuce dropped to $3.80 per carton, and oranges fell sharply to $5.40 per carton. Prices for direct choice steers dropped to $74.02 per cwt, their lowest price since January. Barrows and gilts, at $48.22 per cwt, reached their highest level since August 1991. Broilers declined to 54¢ per pound.



[1]No. 2 yellow, Central Illinois. [2]No. 1 HRW, Kansas City. [3]No. 1 yellow, Central Illinois. [4]SLM 1-1/16", spot market price. [5]Standard carton 24's, California-Arizona. [6]Central California, Standard carton. [7]Nebraska. [8]Omaha. [9]Wholesale, New York. All prices shown are monthly averages.

FOCUS ON FOOD: COSTS AND CONSUMPTION

How much are food costs changing? Why? How much of the consumer food dollar goes to farmers and how much goes to food processors and marketers? How has American per capita food consumption changed in the past 20 years? Find the answers in these NEW products from the Economic Research Service.

Food Cost Review, 1991. August 1992. **Order # AER 662.** 60 pages. $8.00.

This annual publication reports recent developments in food prices, farm-to-retail price spreads, food spending, profits, and marketing costs in the food industry. This report also discusses price-spread changes for leading food items, such as Choice beef, milk, and bread. Topics include why consumers had to pay moderately higher prices for most foods at the supermarket in 1991 and why some food were better buys. Why the the 1991 farm value (what farmers receive) of USDA's market basket of foods was lower than in 1990. And why marketing charges (labor, packaging, transportation, and energy) made up more than three-fourths of last year's retail expenditures for food that originated on U.S. farms.

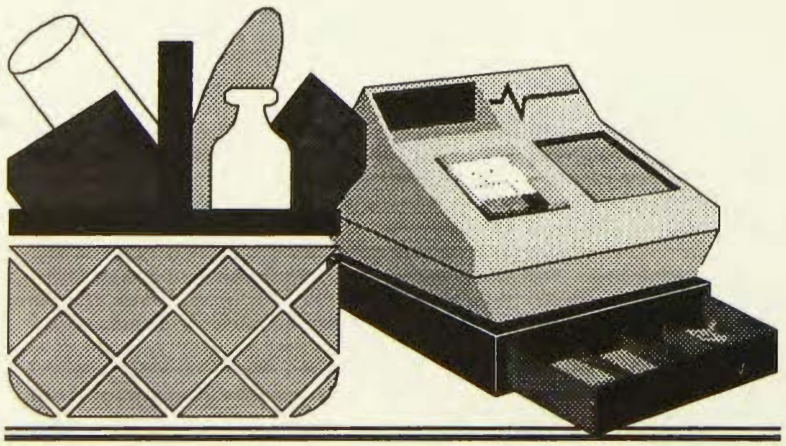
Food Consumption, Prices, and Expenditures, 1970-90. August 1992. **Order # SB 840.** 160 pages. $14.00

This report is a comprehensive and convenient source for historical data on per capita consumption of major food commodities in the United States, including the basic data on supplies and disposition from which the consumption estimates are derived. It also includes information about population, income, prices, and expenditures related to food consumption. This statistical bulletin makes good use of fact-filled tables and illustrative charts.

Food Consumption Electronic Database. July 1992. **Order # 89015B** (one 3.5" disk) [Lotus 1-2-3 (.WK1)]. $25.00.

These disks provide per capita food consumption by commodity and commodity group, 1966-90; supply and use by commodity and commodity group, 1966-90, and food expenditures, 1869-1990.

SPECIAL PACKAGE! Food Consumption, Prices, and Expenditures, 1970-90 Report AND Electronic Database. August 1992. **Order # 92PK01** (one copy of SB 840 and one 3.5" disk). $30.00.



To order these products, call the ERS-NASS order desk, toll free, **1-800-999-6779.**

Or write to : ERS-NASS
P.O. Box 1608
Rockville, MD
20849-1608

Please add 10% shipping for domestic orders; 35% for foreign (includes Canada). **Order now! Prices good through 10/92.**

United States
Department of Agriculture
1301 New York Avenue, N.W.
Washington, D.C. 20005-4789

OFFICIAL BUSINESS
Penalty for Private Use, $300

Moving? To change your address, send this sheet with label intact, showing new address to EMS Information, Rm. 228, 1301 New York Ave., N.W. Washington, D.C. 20005-4788.

BULK RATE
POSTAGE & FEES PAID
USDA
PERMIT NO. G-145