CENTER FOR THE STUDY OF RURAL AMERICA
Federal Reserve Bank of Kansas City

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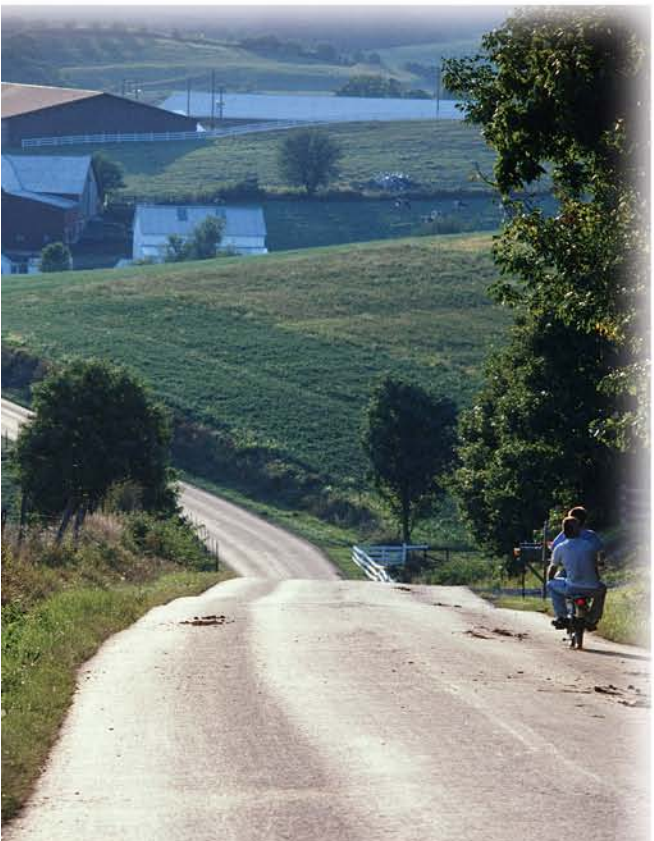
Commentary on the rural economy



An Update on Rural Broadband

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Internet use has grown faster than any other technology before its time, and high-speed data services are following a similar trend. Rural areas still trail the rest of the country in broadband access, though—for the simple reason that too few rural residents must share the high costs of new high-speed infrastructure.

While rural areas are likely to trail metro areas for some time, new technologies have emerged that promise to help rural areas bridge the digital divide. These new technologies offer alternatives to traditional cable and phone lines. Multipoint multichannel distribution systems, broadband satellite, and third generation wireless each promise to give rural areas, and even remote areas, affordable access to high-speed data services.

Broadband development

Broadband lets users move data, access the Internet, and use Internet related services at speeds that are significantly higher than those offered by standard modems. Currently, two technologies make high speed possible—broadband over cable, and broadband over phone lines (DSL). But the benefits of both technologies flow mainly to urban markets.

The incredible growth of Internet access across the country has been fairly even between urban and rural areas. Growth in broadband use, on the other hand, has been far less even. From 2000 to 2001, high-speed connections grew 9.4% in urban areas but just 4.9% in rural areas. Currently, less than 5% of towns with up to 10,000 residents have access to broadband. And areas that are both small and remote rarely have access to high-speed services.

New technology has narrowed the gap between the high-speed haves and have-nots in some parts of rural America. In 2002 the number of broadband providers expanding their lines increased 23%, totaling 19.9 million lines. Figures 1 and 2 show a clear growth pattern in the expansion of broadband lines and in the number of providers. The tremendous growth in the number of counties with access to broadband is creating more competition and thus is helping to drive down costs. Among households in low-density areas with high-speed access, broadband subscription rates have jumped from 43% in 1990 to 60% in 2002.

Despite this good news in some rural areas, much of rural America is still without broadband access. The backbone of the broadband technology is not what limits the access—the problem is the "last mile." In other words, the weakest link in the broadband chain is the access point itself, where the user and cyberspace are physically connected.

Last-mile solutions

Three new technologies offer intriguing new alternatives to traditional wirelines. One is a multipoint multichannel distribution system, or MMDS. MMDS is a wireless system that delivers data via point-to-multipoint microwave radio signals. The technology requires a tower to transmit signals, much like a radio or television tower broadcasts its signals, and has very large upfront costs. The technology holds promise for rural areas because under the right conditions it can operate within a 35 mile radius. MMDS has an advantage over regular wireline service because it is more cost effective and because it does not depend on the exact location of the customer.

Another promising alternative to traditional lines is satellite broadband, which offers solutions for even the most remote areas. Satellite technology offers a direct line of sight to most locations and can create equal access for many locations at the same time. Satellite systems are not constrained by distance and offer broadband service without any upgrades to the existing infrastructures. Satellite systems are still in the planning phase, however, due to their large fixed costs.

The third alternative to broadband wirelines is third generation wireless (3G). 3G technology is very similar to a cellular phone structure and would be able to provide world wide mobile coverage. This technology will require large upfront costs, and like cell phones some rural areas will not be able to get coverage. But 3G has an international focus, giving it more attention. 3G will be able to provide a wide range of data capabilities, such as multimedia and video conferencing. 3G will be able to operate in many environments with worldwide connectivity available through a single device. While there is still speculation on the number of rural areas that could benefit the most from this technology, it remains promising.

The last mile solution is expensive. But the promise of these three technologies means that it may not be long before rural America has cost-effective access to the high-speed world.

Figure 1
Broadband Access, 1999

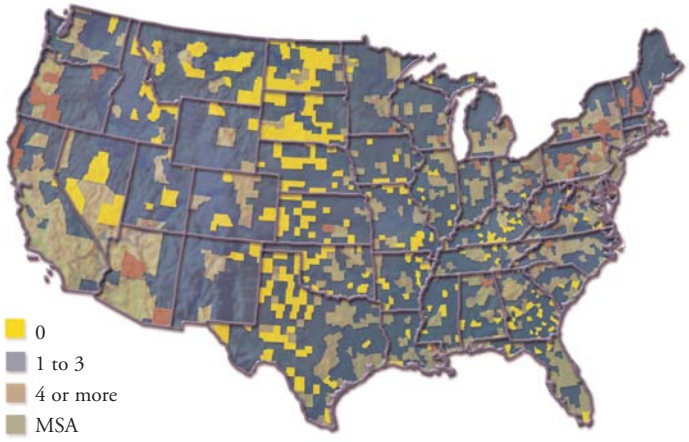


Figure 2
Broadband Access, 2002

Survey of Agricultural Credit Conditions

Federal Reserve Bank of Kansas City

June 30, 2003

Highlights from the second quarter survey.

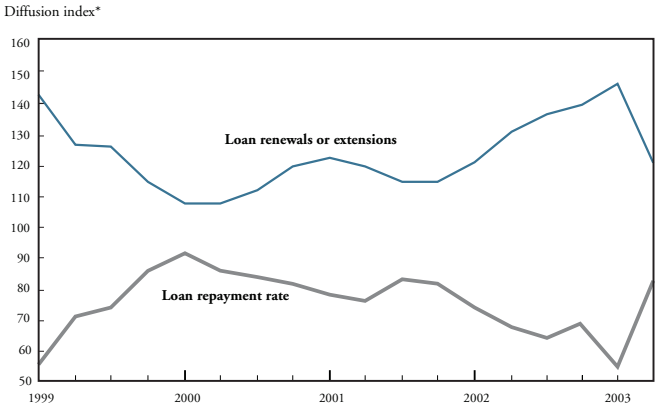
- Gains in district farmland values were more modest in the second quarter compared to previous quarters, but farmland values remain healthy. In the second quarter, annual gains in farmland values were 4.0% for nonirrigated cropland, 4.6% for irrigated cropland, and 6.0% for ranchland. Improved cattle prices contributed to stronger ranchland gains, while drought conditions led to weaker gains in cropland values.
- District farm credit conditions improved in the second quarter. Loan repayment rates for farm loans moved higher, while renewals and extensions eased a bit. A good winter wheat crop and strong cattle prices boosted producer cash flows, enabling many to reduce debt levels. Bankers are taking a cautious approach to new farm debt, but few reported significant repayment problems in the quarter. Still, more than a third of respondents indicated they had increased collateral requirements from a year ago.
- The district farm commodity price index moved higher in the second quarter. Livestock, corn, and soybean prices were higher than the previous quarter, while wheat prices approached their seasonal low. Relative to a year ago, all major crop and livestock prices moved higher with significant price gains for livestock, corn, and soybeans.
- Interest rates on new farm loans edged down in the second quarter. At the end of the quarter, interest rates on new farm loans averaged 7.32% for operating loans, 7.34% for machinery and intermediate-term loans, and 6.87% for real estate loans. Since June, interest rates in national money markets have moved up.

Note: 292 banks responded to the second quarter survey.

Please refer questions to Nancy Novack, associate economist, at 816-881-2423 or nancy.l.novack@kc.frb.org.

Farm Credit Conditions

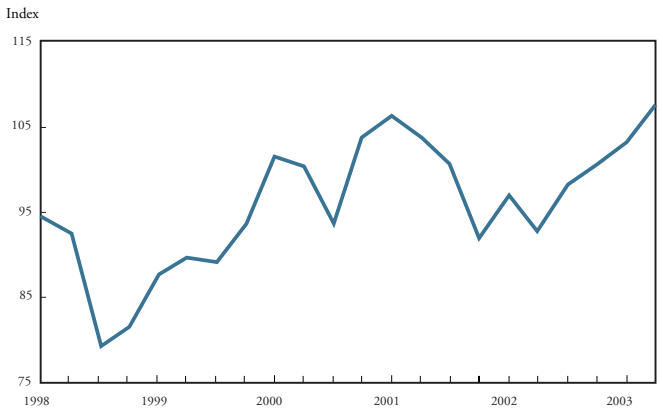
Tenth District



*Bankers responded to each item by indicating whether conditions during the current quarter were higher than, lower than, or the same as in the year-earlier period. The index numbers are computed by subtracting the percent of bankers that responded "lower" from the percent that responded "higher" and adding 100.

Farm Commodity Price Index

Tenth District

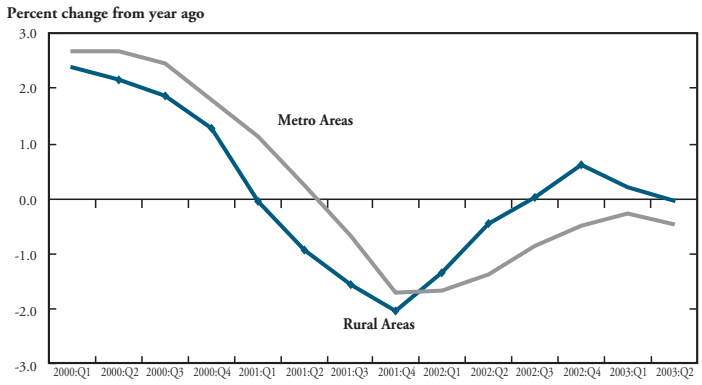


Summary of Economic Conditions

Highlights from the second quarter*

- The recovery in the rural nonfarm economy stalled in the second quarter of 2003. After adding jobs in each of the previous three quarters, rural America lost jobs in the second quarter. The number of rural jobs at the end of the second quarter was slightly below a year ago falling less than 0.04 percent.

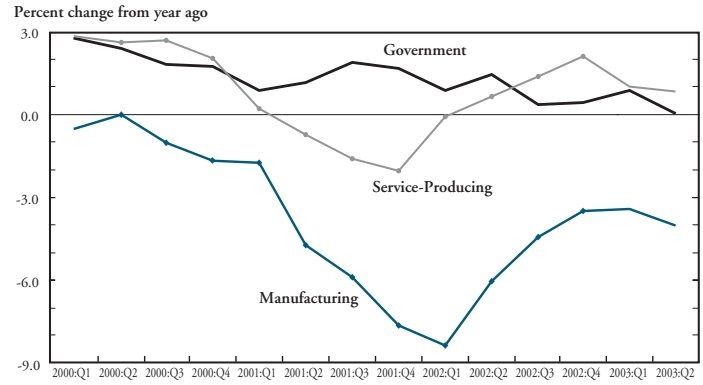
Rural and Metro Job Growth



Source: Bureau of Labor Statistics

- A slowdown in service-producing job gains and continued weakness in manufacturing contributed to the weakness in job growth. Service-producing sectors have underpinned the economy throughout the recovery, but job gains in these industries pulled back and at the end of the second quarter stood at less than one percent above a year ago. Rural factories continued to make cutbacks and second quarter factory jobs remained well below a year ago.

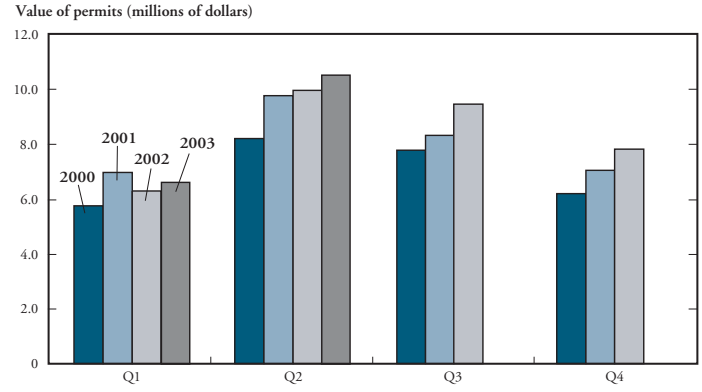
Rural Job Growth by Sector



Source: Bureau of Labor Statistics

- Rural construction activity benefited from low interest rates in the second quarter. While the number of building permits did not rise significantly from the previous year, the value of rural permits continued to improve. At the end of the second quarter, the value of rural building permits was more than 6 percent above the high levels of a year ago.

Rural Residential Construction



Source: Bureau of Labor Statistics

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For more current analysis on the state of the rural farm and nonfarm economies, visit our website at *www.kc.frb.org.*

Notes: Data for all tables are not seasonally adjusted. Job data were revised and reclassified in January 2003.