

RuralAmerica

USDA/ERS • Volume 16, Issue 2 • Summer 2001

All the feature articles in this issue deal with one theme—community colleges. Community colleges have gone through a half-century of significant change, evolving from liberal arts schools preparing students for 4-year colleges to schools more focused on technical and vocational training, often with missions explicitly oriented toward local economic development. Many classes have shifted from the daytime schedule typical of colleges to evening and weekend courses designed for working adults. These changes have been particularly significant for rural areas. Some 40 percent of all community colleges are in rural areas or small towns and, often, they are the only institution of higher learning in the area.

Stuart A. Rosenfeld, who put together the group of community college articles for this issue, introduces the topic in his first article. He traces the expansion of rural community college missions and the growing diversity of the student body, as colleges attracted more older, female, and minority students. In the 1980s, many colleges began to offer programs to meet the needs of small and medium-size enterprises, especially in technology. In the 1990s, the Internet influenced what and how colleges taught. Community colleges will be increasingly challenged by competition from other educational institutions (including web-based education), and will need to find ways to combine the broad scope of their missions with the focus necessary to fill the unique educational needs of their communities.

In his second article, Rosenfeld examines an alliance in Ireland between a technical institute (similar to an American community college) and a local development agency in the remote western village of Letterfrack. The two organizations created a new college within the institute to teach furniture making in order to bring that industry to Letterfrack and to strengthen the weak Irish furniture industry. The program has grown rapidly and the students have readily found jobs, but so far development benefits have been from the college itself rather than from the creation of local industry.

Sarah Rubin discusses the Rural Community College Initiative (RCCI), a collaboration between a nonprofit research organization, MDC Inc., and the Ford Foundation, to explore the use of community and tribal colleges in poor rural areas as agents for development and improved access to education. Twenty-four colleges were chosen to participate in areas ranging from Appalachia to western Indian reservations. Each received planning grants and technical assistance as it formed leadership teams with both college and community members. The most successful schools strengthened regional leadership and forged closer ties with their rural clients.

Cynthia D. Liston and Linda L. Swanson examine whether successful community college strategies can be replicated by other schools. Using benchmark practices that were identified through a Fund for Rural America project, the article cites a number of success stories. The best practices included entrepreneurial training, alliances between the college and local industry, and programs that promoted the use of local amenities. Replicating strategies successful elsewhere can be a way for small colleges to avoid costly mistakes and to create networks with other colleges.

Rural Updates in this issue cover rural development policy, migration, earnings, and farm household income and wealth. Richard J. Reeder gives an overview of rural development policy and regulatory changes over the past year. Low-income areas stand to benefit from the Community Renewal/New Markets Initiative and the new Delta Regional Authority, a multi-State organization centered on the Mississippi River and comparable to the Appalachian Regional Commission. Infrastructure also got a boost last year, especially transportation and community facility aid.

John Cromartie reports on a significant shift in rural migration—in 1999-2000 the surplus of immigration from metro to nonmetro counties reversed for the first time in a decade. Moreover, between 1998 and 2000, the nonmetro Midwest overtook the South and West as the region with the most immigration. Migration by college graduates to nonmetro areas also dropped during that period. Robert M. Gibbs updates Current Population Survey data for nonmetro weekly earnings. Nonmetro earnings increased 9.8 percent between 1996 and 2000. These gains have been enjoyed by women and minorities as well as White males, and by workers in all educational groups. The share of nonmetro workers earning low wages has also fallen for all demographic groups.

Robert A. Hoppe uses ERS's 1999 Agricultural Resource Management Study to update farm household income. Farm households now earn average incomes some 17 percent higher than the U.S. average. Overall, only 10 percent of that income comes from farming, though this varies widely by farm size and whether farming was the farm owner's principal occupation. Off-farm income has become important even for households operating large farms.

Douglas E. Bowers

Rural Community Colleges

Creating Institutional Hybrids for the New Economy

Stuart A. Rosenfeld

Community colleges have become highly valued institutions in rural America, successfully taking on an expanding hybrid of missions to meet the needs of a changing rural economy. The best among them combine many of the objectives and services long provided to agriculture by the rural school districts, the Grange, cooperative extension service, and the experiment stations. Today's community colleges educate from post-high school through retirement, train for paid employment as well as hobbies, catalyze improvements in their economies and communities, and attract arts and entertainment.

The goals of the new community college encompass social, economic, and civic outcomes. Extending itself to meet the rapidly growing market for skills and services, however, raises a new set of concerns. What are the limits to delivering quality services in rural areas, and at what point does the weight of too many expectations signal diminishing returns? This

Stuart A. Rosenfeld is principal and founder of Regional Technology Strategies, Inc. in Carrboro, North Carolina, and founder of the Trans-Atlantic Technology and Training Alliance, a network of community colleges from the U.S. South, Europe, and South Africa.

Once a stepping stone to higher education, the rural community college has evolved into a multipurpose institution that meets lifelong learning needs and the economy's demand for information and skills. The best institutions merge an applied higher education with extension-like services for local industry. But rural community colleges are facing new challenges, including new competition from other providers, expanding student diversity, rising credential requirements, and the digital divide. All of this leads to an even greater proliferation of missions and expectations, and possible growing pains for smaller rural community colleges.

article traces the path taken by the rural community college to now, describes its many roles, and speculates on its future.

Moving Through the 20th Century

A half century ago, nonuniversity post-secondary education, which was mainly conducted at junior colleges, had a much simpler and more straightforward purpose. The junior college was a convenient gateway to a 4-year degree program for many rural youth because it was closer to home and less expensive. "Vocational" education was a separate track in the secondary school curriculum and, beginning in the 1960s and continuing through the 1970s, was offered to rural high school students and adults through local vocational centers that greatly expanded the selection and resources of available programs.

The number of U.S. community colleges nearly doubled in the 1960s, when the nonuniversity post-secondary sector was

reshaped into comprehensive institutions with legitimate regional foci and few entrance restrictions. Community colleges began to offer more technical and vocational programs—often in competition with the rural vocational centers. Some State community college systems, mostly in the South, enthusiastically adopted their new economic development missions. Some States created special units or programs that allowed them to deliver customized and noncredit training to employees of new and expanding industries under less restrictive conditions than educational policy allowed. But other colleges were in places that did not immediately embrace economic development. As recently as 1988, less than half of 200 rural colleges surveyed included economic development in their mission statements, and only a third had allied themselves with community economic development efforts.

Distributing Technology and Skills

Hagerstown Community College, in the Appalachian region of western Maryland, is attempting to foster an area where a high-skilled workforce can thrive. The Advanced Technology Center (ATC) was established in 1989 after several major industries restructured their operations, including massive layoffs that led to double-digit unemployment. The college, working with local development agencies, set out several goals to help transform the local economy: workforce development, increased technology transfer, an emphasis on shared technical resources, and a program of business incubation. The ATC now includes 4 specialized centers and 14 specialized laboratories. As the region's economy became dependent on entrepreneurial activity, the Technical Innovation Center (TIC) was a natural next step. Opened in 1994, the TIC has a 30,000-square-foot facility where businesses can launch new products. To date, the center is at capacity with 34 tenants and can document 171 created or retained jobs.

In the 1980s, the community college mission again expanded—this time to meet the demands of small and mid-sized enterprises (SMEs) for the new technical and organizational skills associated with the adoption of new technologies. The cooperative extension model, frequently invoked due to its success in distributing public services, was indeed the model many colleges adopted. At first, the technology diffusion model was not the university-based programs model created by the Smith Lever Act of 1914 (which institutionalized cooperative extension), but instead was that model's origin, the local demonstration farm. This model, conceived by Seaman Knapp in 1894, helped farmers to learn about and then adapt new agricultural technologies and practices. Leading community colleges, such as those exemplified by member colleges of the Consortium for Manufacturing Competitiveness (CMC) in the rural South, established advanced technology centers where they could demonstrate to SMEs the potential and use of the new technologies they believed were needed to survive in the

global economy (see "Distributing Technology and Skills").

The next transition in community colleges, which began in the 1990s and is ongoing, reflects an information-based economy and the ubiquity of the Internet. The computer and Internet are altering the ways that colleges teach, and what and how people learn. Colleges are knitting together web-based and classroom courses to create more flexible degrees for working and rural people. At the same time, many employers are eschewing conventional credentials in favor of software-vendor created and delivered certifications (often within the community college).

Each of these transitions has been accompanied by dramatic changes in the composition of community college enrollment. At first, the junior college prepped the predominantly young White male of European descent for the university. Next, the rise of vocational education and economic development missions attracted employed, older, and usually part-time students, and marked the emergence of noncredit and employer-based enrollments. Beginning in the late 1960s, when the community college became a strong democratizing force, the open-door policies attracted more women, African Americans, and Latinos, especially in the rural South and Southwest.

In 2000, 1,132 community colleges in the U.S. (995 public institutions) enrolled 5.4 million credit and another 5 million noncredit students and conferred nearly 700,000 certificates and degrees. The largest number of public community colleges are located in rural areas and towns, although they are on average smaller and enroll a smaller proportion of students (table 1).

Students span all levels of educational interest and ability, and are increasingly new immigrants, some of whom lack language and

Table 1
Public community colleges by location, 1998; colleges and enrollments

Location	Percent colleges	Percent enrollment	Average students
Large city or fringe	29	52	9,392
Mid-size city or fringe	30	32	5,553
Rural or town	40	17	2,276

Source: National Center for Education Statistics, IPEDS electronic data file, 2000.
Note: Percentages may not add to 100 due to rounding.

employment skills for the U.S. workplace. More and more college graduates are returning to community colleges to explore new careers, as are incumbent workers who want to upgrade skills. About a quarter of all students entering community college say they are working toward a baccalaureate degree, and 60 percent state clear occupational goals.

Community college students are more diverse than those in other public educational institutions:

- 58 percent of students are female.
- Community colleges enroll 46 percent of all African American, 55 percent of all Hispanic, and 55 percent of all Native American students in higher education.
- Half of community college students work part time and a third work full time.
- 30 percent of all students enrolled full time also work full time.
- The average age of a student is 29 years.
- Almost a third of students receive some financial aid.

Are Community Colleges All-Purpose Institutions?

As rural economies have become more complex and diversified and as the demands for education and training have increased, community colleges have blossomed. While continuing to prepare youth for 4-year programs, the most proactive and innovative colleges have become leading—and

often sole—sources of new skills and knowledge, valued repositories of information, effective brokers of employment as well as business-related and social services, and focal points for community activities and action. Different colleges, of course, take these various responsibilities to different levels depending, for example, on the availability of alternatives for each role, the interests and motivation of their presidents and boards of trustees, and the background of their faculty.

The rural community college has proven very astute in meeting the challenges of the information economy, with the entrepreneur and innovator schools paving the way and the imitators generating scale and adding new enhancements and improvements. The once rare advanced technology center has become common practice, and partnerships the rule. Even—perhaps especially—the most rural colleges use the Internet to access educational and intellectual resources worldwide.

But today, rural colleges are facing what may be their biggest challenges. The new landscape includes:

- Increasing reliance on global connections, even in isolated environments;
- Rising credential and skill needs of employers and academic aspirations of students;
- Low skill and literacy levels among applicants;
- Increasing diversity in terms of race, ethnicity, and academic achievement;
- Job hopping and multitasking;

- Declining recruitment successes in rural areas;
- A proliferation of missions that threatens to fragment colleges' resources;
- New competition from corporate, for-profit, and web-based programs; and
- The Internet and growing demands for information technology skills and certification.

Meeting and greeting globalization. People in rural communities, who are as strongly affected by the global economy as urban dwellers, have fewer opportunities to experience the global economy firsthand; they have less regular contact with foreign employers, competitors, or visitors. Similarly, students in community colleges have fewer opportunities than university students to take part in exchange programs or to study abroad. Globalization is typically made tangible only with exposure to, say, a Japanese branch plant or Latino factory worker. Rural community colleges could benefit by expanding their connections to other cultures and economies. The Trans-Atlantic Technology and Training Alliance—a network that includes southern and predominantly rural colleges along with European and South African technical colleges—is building such bridges.

Rising aspirations and changing expectations. Despite the growth of community college programs and enrollments, many entering students aim for higher degrees. In 1995, 42 percent planned to get a baccalaureate degree and 37 percent planned to get a postgraduate degree. However, students who say they are in a transfer program are

still very much experimenters, taking a variety of courses. One reason for these aspirations is that, with the exception of licensed occupations such as nursing and electricians, employment requirements that specify associate degrees are unusual. For most occupations, the 2-year associate degree has never gained the respect among U.S. employers that it has in many European nations.

Instead, employers ask for experience and/or a baccalaureate degree. Many employers will say, however, that holding a BA/BS is less important for its technical knowledge per se than it is as a proxy for persistence, commitment, higher literacy levels, and stronger problem-solving and thinking skills. Parents also want the higher degrees for their children, both for the status it confers and as a rational economic choice likely to result in higher incomes. This may lead to upward credential creep in rural colleges, as it has in the polytechnics of Europe, and toward longer and more rigorous occupational community college programs and, ultimately, applied baccalaureates. This would put greater pressure on the readiness programs to keep the community college path open for the most disadvantaged students.

Getting ready. Most youths or adults first enrolling in the rural (or urban) community college lack the skills and knowledge to begin a program of study. Public high schools graduate too many who lack the basics, yet who aspire to higher education. Community colleges, pledged in this Nation to accept everyone, must repeat some of the secondary curriculum, and tailor it to an environment appropriate for working adults. Rural community colleges, often too small to offer the full range of

remedial courses without limiting their occupational programs, are even harder pressed.

Dealing with diversity. In some rural areas of the South and Southwest, diversity historically has meant meeting the needs of Black, Hispanic, and Native American students, many of whom are the first to attend college in their families. Those populations are increasing, and two-thirds of the population growth in the rural South in the next quarter century is expected to be from minorities. But new immigrants are coming from Asia, the Middle East, and Eastern Europe, and they are not all settling in the cities. "Diversity" now includes students from dozens of ethnic backgrounds, and it is becoming an issue in all rural areas across the Nation. Thus, rural colleges must accommodate a greater number and wider range of students, many of whom do not speak English as a first—or even second—language and who are not acclimated to the U.S. society or workplace. Rural colleges often lack the necessary support services and skills to meet the needs of such a wide range of students.

Accommodating careening career paths. Education is becoming a true lifelong activity. The typical student of today's rural community college is not the 18-year-old liberal arts student. The average age of the student population is nearly 30, and many are married and have families. Nearly two-thirds are working and more than a third are working full time. The majority of students are not enrolled full time in degree programs but are taking courses (about half of enrollments are in noncredit courses); they are either people right out of high school or at mid-career exploring further options.

Many have accumulated credits from a variety of different institutions and expect to mix and match them to arrive at their credential goals. Increasingly, students already have BA/BS degrees and want to either pursue a different career or upgrade their skills. A recent study found that almost one in three employed people in the rural South had considered changing jobs during the previous year. Some students want only very specific skills or certifications to meet work requirements. In March 2000, a survey of a major newspaper's want ads for "technology employment" found that one in seven specified an information technologies (IT) industry certification.

Despite the growth of community college programs and enrollments, many entering students aim for higher degrees.

Growing entrepreneurs. The halcyon plant recruitment days of the 1960s and 1970s have ended for rural America, and many rural areas are beginning to realize that they have to build their own economies. Thus, community colleges, which have typically prepared people for employment, not self-employment, must refocus their curriculum and resources to support an indigenous economy of new and expanding businesses. The Appalachian Regional Commission has done so with its entrepreneurial initiative, which supports, in part, efforts such as Haywood Community College's entrepreneurship center (see

Growing Entrepreneurs

Haywood County sits on the western border of North Carolina in the Great Smoky Mountain Range. Its primary sources of income have been manufacturing and tourism, but recent declines in manufacturing have hurt the economy. The community college believed that entrepreneurship was the key to long-term economic growth. In 1990, Haywood Community College (HCC) started the Entrepreneurial Learning Initiative (ELI) to foster entrepreneurship throughout all college curricula, to make entrepreneurs out of all students, regardless of field of study. This is accomplished through requiring all craft and production students to take business courses, offering Rural Entrepreneurship through Action Learning (REAL), and imbedding entrepreneurial competencies into technical courses. The college is developing an Entrepreneurial Resource Center, organizes an annual entrepreneurial conference, establishes networks of entrepreneurs, publishes a quarterly entrepreneurial newsletter, is creating craft studio incubators in the region, and supports a small business center. From 1992 to 1998, 64 percent of the 89 HCC graduates started businesses. As of December 1999, 91 percent of those businesses were still in operation.

“Growing Entrepreneurs”) and Hagerstown Community College’s new business incubator (see “Distributing Technology and Skills”).

Facing new competition.

Community colleges compete with a growing private sector educational establishment. The competition includes for-profit and proprietary schools like the University of Phoenix and DeVry, which offer classes nationwide, as well as corporate “universities” like Motorola in San Jose, Saturn in Nashville, and Ford in Detroit (there are more than 1,600 such corporate colleges). Other competition comes from the burgeoning Internet-based education and training programs being developed at both public and private schools. Despite the growth, there are still few quality control mechanisms or ways for consumers to evaluate and compare the new competitors.

Taking to the Internet. The impact of IT and ubiquity of the Internet (at least among middle and upper income classes and in urban areas) signal not only a shift in

industrial mix, but also a fundamental change in the way work is organized. The IT boom also has altered the mix of people who are hired, generating a demand for IT specialists and users that now far exceeds supply. Small and large companies, even in rural areas, are adopting e-commerce and e-business to communicate, supported by colleges such as Oklahoma State University at Okmulgee (see “Networking Its Customers”). IT is also increasing the number of corporate certification programs being offered at community colleges, and the demand for certifications to accompany traditional credentials.

What Are the Limits and the Challenges for Tomorrow’s Rural Community Colleges?

Although rural communities have embraced community colleges, the employment landscape continues to change, both in terms of sectors and occupational mix within sectors. Desk work is an ever-increasing proportion of manufacturing employment, and as dependence on IT grows, it is

becoming the better paying, higher status, and more desired work. As David McGranahan discovered, high industrial growth in rural counties is now associated with high levels of academic attainment—a turn-about from the 1960s and 1970s when manufacturing jobs fled to areas in the South with low levels of education. But at the same time, the dwindling attractiveness of skilled industrial jobs as the workforce ages is creating serious skill shortages among manufacturers in many rural areas, and many view community colleges as their best hope for reversing that situation.

Competition from web-based education, corporate and for-profit colleges, and 4-year institutions will become much tougher for community colleges. While rural community colleges cannot match the scope of the competition, the best colleges will compete by their ability to teach in a context that is appropriate and relevant to rural economies and to meet the needs of students requiring special attention. They will also co-opt some of the competition by, for example, offering corporate training onsite, integrating web-based courses with their own, and working out reciprocal exchange agreements for credits with other 2- and 4-year colleges. This will be especially helpful to the smaller rural colleges as a multiplier for their internal capacities. Colorado’s community colleges, for example, have an innovative e-commerce initiative that offers employers access to workshops and consultation for specific needs. Small business operators can enroll in subjects from “e-marketing” to “legal issues in e-commerce,” employees can try career paths in the computer industry, and high school students can begin careers in e-commerce.

Learners and learning organizations will become more diverse and demanding. As a result, alliances among institutions and with employers and support services—both local and nonlocal—will become more valued and necessary. A more diverse learner population will also require extensive support services, particularly on the front end to get nontraditional learners ready for regional employment and social life. The most successful rural community colleges will stake out a niche—most likely related to an industry, occupational cluster, or a key technology—on which to build a national and international reputation.

The most successful rural economies will most likely develop in the most effective learning regions, and the best colleges will ultimately position themselves at the heart of these learning regions. While it is difficult to define the concrete actions that bring about a learning region, most experts believe it is based on a social infrastructure that supports the easy diffusion of knowledge and skills. Associative behavior must come to characterize the rural community college, which will act as a systems integrator, broker services and information, and break down the barriers that result from scale and distance. Rather than trying to meet all needs, community colleges will need to establish even more alliances with organizations that complement and supplement their own strengths.

Finally, the Internet will alter learning and the role of rural community colleges. With education readily available from remote sites, community colleges will have to find ways to add value to the learning process and market themselves differently. They may have to emphasize programs that demand physical laboratories and/or equipment and courses that are enhanced by interaction. As community colleges are asked to be more flexible in how and where they offer courses, they may have to engender a community of scholars, a trait generally associated with universities. Successful colleges will be regionally committed and globally connected, possess a store of technical expertise and knowledge, adapt quickly to change, and successfully bridge the gap between civic and economic

responsibilities as well as individual and industry interests.

Ultimately, the best community colleges will find a niche in which they can truly excel, identify gaps to fill in the regional economy, and help citizens with special needs climb career ladders. One of the strengths of the community college is the scope of its mission; one of its weaknesses is that it spreads itself too thin when it ought to stay focused on its postsecondary educational goal. These conflicting strategies in part reflect philosophies of college leadership, but also derive from State policies.

Missions can grow both horizontally and vertically. Horizontal growth means expanding services for all types of employment while vertical growth comes from accumulating expertise for a certain sector of the economy. Most colleges

Networking Its Customers

The Northeast Oklahoma Manufacturers Council (NEOMC) is a striking example of how a technical college, in this case Oklahoma State University's Technical Branch at Okmulgee, can facilitate and maintain strong interfirm collaboration. NEOMC, which began in 1993, now has over 80 active members drawn from small and medium-sized manufacturing firms that comprise the region's economy. The network offers members several benefits, including increased opportunities to jointly bid on projects, increased productivity and local economic growth through cultivation of local vendors and suppliers, and increased quality and quality assurance programs. All members are required to have e-commerce, and the college has created a single e-business site for Council members for finding and responding to contract opportunities collectively or individually. The network sponsors incumbent worker training and works closely with the 2-year college to encourage manufacturing as a career for both college and high school students.

choose a middle course—maintaining a range of programs but picking a niche, usually related to a dominant industry, and developing it more fully than other programs. Alabama Southern Community College in Thomas, for example, has established a Center for the Chemical and Pulp Paper Industry. Great Basin Community College in Elko, Nevada, has a special program

to train workers for the gold mining industry.

Even with the increased competition for education and training, rural community colleges invariably will have to fill a greater array of needs than urban colleges if only because diseconomies of scale make other sources of training and assistance scarce. It will take strong leadership, however, for rural

colleges to be responsive to the economy's needs without losing their commitment to independent learning and inquiry, to integrate credit with noncredit programs and academic with vocational courses, and to select goals they can meet most effectively and relinquish those that can better be met by others. **RA**

For Further Reading . . .

Kevin J. Dougherty and Marianne F. Balia, "The New Economic Role of the Community College: Origins and Prospects," Community College Research Center, Teachers College, Columbia University, January 1998.

New Expeditions Committee, *Knowledge Net: Connecting Communities, Learners, and Colleges*, Washington, DC: Community College Press, May 2000.

W. Norton Grubb, *Working in the Middle: Strengthening Education and Training for the Mid-Skilled Labor Force*, San Francisco: Jossey-Bass, Inc., 1996.

Steve H. Murdock et al., "The Increasing Diversity of the Rural South: Challenges and Opportunities in Future Population Growth," Mississippi State Southern Rural Development Center, *21st Century Papers*, No. 6, April 2000.

Stuart Rosenfeld (ed.), *Learning.now: Skills for the Information Economy*, Washington, DC: Community College Press, May 2000.

Stuart Rosenfeld, *New Technologies and New Skills: Two-Year Colleges at the Vanguard of Modernization*, Washington, DC: American Association of Community Colleges, 1995.

College and Community in Partnership

The Furniture College at Letterfrack

Stuart A. Rosenfeld

Ten years ago, a community-owned development center in Ireland partnered with a technical college to create a local institution that could revitalize both a community and a lagging furniture industry cluster. Galway-Mayo Institute of Technology and Connemara West, a community-owned economic development organization in western County Galway, joined forces to build a new college to introduce craft and design principles, entrepreneurship, and new production technologies in an effort to breathe new life into the industry.

In 1988, Ireland's Galway-Mayo Institute of Technology (GMIT), Ireland's closest equivalent to a community college, and Connemara West (CW), a rural community-owned development organization in the village of Letterfrack, embarked on an innovative path to revitalize the local economy and create new opportunities for youth. In the late 1980s, Connemara, a scenic but remote area in western County Galway, had virtually no industry, a declining population, an official unemployment rate of nearly 22 percent (and an unofficial rate of about 50 percent), and few job opportunities for its youth. Many young people left school early and very few enrolled in higher education. The best hope for enterprising local youth was to migrate to Ireland's urban areas and seek

employment in the many foreign-owned branch plants.

Connemara West looked to furniture manufacturing for its future, partly because it already had a successful woodworking program for disadvantaged youth and a vacant facility—a former boys' reformatory. Taking on furniture production, however, was a risk because it required much higher skill and management levels and therefore higher education levels than did woodworking. Ireland's furniture industry was weak in comparison to other European countries, and the government had essentially given up on it. One official hearing about the effort commented that "getting technology into furniture would be a waste." Nevertheless, the community and college believed there was a market niche for quality Irish furniture, and, unlike much of Ireland's growth economy, the sector was indigenous and had potential for entrepreneurial opportunities in rural areas. The CW believed that better-educated workers could help make

this industry more competitive, that the rural location could capitalize on the natural beauty of the area, and that the industry, by attracting applicants and companies, could spur economic development in the community. Because success depended on skills, CW's first and most important partner was the Galway-Mayo Institute of Technology (GMIT).

After considerable analysis and discussion, CW and GMIT—advised by a consultant from Denmark—formed a partnership to design a furniture college that would deliver a high-quality, postsecondary degree program in furniture design and manufacture, and to make the college internationally renowned for skills in modern furniture design and technology. The title "Furniture College" was agreed upon by the partners to demonstrate the shared interests, but it has no legal standing; the college is part of GMIT.

The college has grown substantially since 1990, when the first national certificates were con-

Stuart A. Rosenfeld is principal and founder of Regional Technology Strategies, Inc. in Carrboro, North Carolina, and founder of the Trans-Atlantic Technology and Training Alliance, a network of community colleges from the U.S. South, Europe, and South Africa. The research was conducted by the author during 1997-98 for the Community College Research Center at the Institute on Education and the Economy, Teachers' College, Columbia University. It was updated by Furniture College faculty member Patrick Anthony Tobin as a case study for a USDA Fund for Rural America grant to RTS, and draws on his research.



Student at the Furniture College, Letterfrack, fashions a box as part of a program that teaches both hand and machine furnituremaking skills. Photo courtesy The Furniture College, Letterfrack, Ireland.

ferred, and since 1992, when the college received 380 applications for just 15 places. By 1997, the program enrolled 27 students and offered 2 certificate programs (1 in furniture design and manufacture and 1 in furniture production), as well as a baccalaureate program in furniture technology. By 2000, the college had 85 students, and in 2002, enrollment is projected to reach 160. Applicants to the certificate programs must have a good grasp of math and science plus, preferably, previous work in sciences, computing, engineering, technical drawing, and art.

Since the program emphasizes entrepreneurship and design, students are expected not only to understand furniture materials and processes but also how to manage an enterprise and sell its goods. Besides wood, students are encouraged to creatively incorporate copper, steel, plastics, and fabrics in their furniture design. They also learn to apply computer-based technologies necessary to their craft to achieve high-volume production.

As the college developed, it added a research and development institute, and more directly diffused the technologies being taught to its students into the industry. This, it was anticipated, would solidify Letterfrack's claim as the furniture skills and technology center of Ireland. Forbairt, Ireland's Science and Technology agency, contracted

with an expert from the Danish Technological Institute to carry out a study of the industry and the potential for a technology center at Letterfrack. In 1997, a Furniture Technology Center was established at the college, funded by Forbairt. In 1999, the Furniture Restoration Center opened, also as a separate legal entity from the college, and college students now are engaged in restoration work for the National Gallery of Ireland.

The college has a remarkable record in attracting and selecting good students and helping them find employment. Applicants far outnumber openings, and the recruitment of students from all over Ireland and abroad speaks to the reputation of the college and the community. Students are easily placed after graduation. The new bachelor's degree program enables students with certificates to continue their education, and many now do.

The program's entrepreneurial spirit has yielded results. Since 1990, graduates have successfully started 15 new businesses in Ireland that incorporate design and innovation into high-quality and artfully crafted products. By integrating management, marketing, and administrative skills with technical and design skills, the Furniture College enhances its graduates' entrepreneurial capabilities.

It will take more time for the college to build productive links with industry, largely because Ireland's furniture companies still lack a collective vision—or the associational structures that might produce a vision. The Furniture College and Technology Center and its skilled workers and artisans, however, may change industry attributes and attitudes. Ireland's furniture industry is beginning to

show a new appreciation for the value of training, information systems, and professional management among employers and an emerging willingness to share information and cooperate. The overwhelming entrepreneurial aspirations of students may be the long-term salvation of the industry and region. If students receive the support they need, achieve their goals, and grow, the industry will receive a real boost.

The effects on the local economy thus far are attributable mainly to the college itself, not the students or technologies it produces. In the last 2 years, a number of staff members have located to the area (table 1), a trend likely to continue as Letterfrack's infrastructure and services improve to meet the needs of the new arrivals. There is now regularly scheduled bus service to Galway, and housing has been renovated and amenities expanded to accommodate the growing student body and faculty. Construction on the college in the last 2 years (some \$4.4 million) employs local contractors and brings other workers into the area, generating additional economic activity. Student involvement enriches the local community, and college facilities (e.g., library, evening classes, and sports facilities) are available to the community. Student housing and other facilities serve a growing tourist trade in the college's offseason.

Most graduates of the program, however, leave the area—not surprising since there are few local companies to employ them and young people often seek an environment with more social amenities. The real test, however, is whether some will later choose to return. As the new furniture technology center grows, it may create opportunities for new businesses in

Table 1

New GMIT employees, by work status and residence

Status	Residence	Number
Full-time	Living locally	2
	Commuting	3
Temporary full-time	Living locally	3
Part-time	Living locally	4
	Commuting	6
	Visiting (Temporary)	17
CW staff:		
Full-time	Living locally	2
Part-time	Living locally	3
Foodservice staff:		
Full-time	Living locally	2
Part-time	Living locally	2
Furniture technology center staff:		
Full-time	Living locally	2
	Commuting	2
Part-time	Visiting (Temporary)	3
Furniture restoration center staff:		
Full-time	Living locally	2

Source: Patrick Anthony Tobin, "Reviving a Community, Modernizing an Industry: Ireland's Furniture College," RTS, 2000.

the Connemara region. Nevertheless, there are some immediate effects on the community that are quite obvious. For example, by expanding the employment, young population, and visibility of the village, the college has given the community hope and a basis for economic growth. Furthermore, the furniture sector has broad appeal and long-term potential for Ireland because it is largely an Irish-owned industry that could provide a stable, continuing source of income and jobs, and it is likely to use local suppliers and invest its profits in the Republic of Ireland.

Prospects

The college has three sets of customers—the students, the community, and the industry. The students have a bright future. There are sufficient economic opportuni-

ties, though not necessarily in the region or even in Ireland, and many students have already set their sights on other locations and countries. Though many may leave to acquire new skills and contacts, they may later return to the area, as many Irish youth are doing now.

The community, which has already reaped benefits from the college, may also develop its own furniture industry base if it can attract the entrepreneurs among its graduates. The college is talking about forming its own local furniture company in the community and, in the near future, the CW may want to consider a new business incubator to give students a chance to share startup risks and establish markets.

The graduates of the college, who already have a strong relationship with industry, are beginning to

affect industry attributes and attitudes. The students are moving into key, influential positions, but their full impact will not become apparent until more students graduate and take management positions. In addition, many furniture companies are expressing interest in short courses, workshops, and seminars organized and delivered at the college or at company premises. This type of service combined with applied research programs could move the industry even more quickly.

Growth, however, also brings some undesirable changes. Fueled by the economic boom and the desire for rural resorts, the Letterfrack community has already experienced spiraling housing prices, and some new staff are now unable to purchase a home. Another challenge will be to meet the social and consumption needs of the youth influx, while avoiding student-driven homogenization that could change the nature of the Connemara West region. At its current levels, the student population is a huge asset and source of new wealth. A student body multiplied by three or four, however, may overwhelm the community culture.

Yet in total, the furniture college has been a very successful and unusual partnership between a college and community. By merging the objectives of community development and education for industry, the college has formed an effective team of people with different backgrounds, interests, and ambitions. And, by focusing its energy on one industry cluster, it has established a reputation for excellence that extends far outside the community. Furthermore, this partnership may be replicable under the right circumstances. **RA**

Rural Colleges as Catalysts for Community Change

The RCCI Experience

Sarah Rubin *The Rural Community College Initiative (RCCI) challenges colleges in economically distressed regions to become catalysts for economic and community development and improved access to education. Led by college/community teams, the 24 sites have experimented with a wide variety of strategic approaches. Through their educational and economic development efforts, RCCI teams are demonstrating how community colleges can help build a foundation for improved prosperity in distressed regions.*

Since 1994, the Rural Community College Initiative (RCCI) has been exploring how community colleges can be catalysts for change in economically distressed regions. RCCI has 24 sites in Appalachia, the South's Black Belt and its tobacco/textile belt, the western Indian reservations, the Rio Grande Valley, and New Mexico (fig. 1). Many RCCI regions have lost their historic job base of mining, farming, timber, or manufacturing, while others have never had a viable economy. A few RCCI regions are becoming popular tourism/retirement areas where rapid growth threatens to overwhelm traditional culture, while low-income residents fail to reap the benefits of an expanding economy.

Despite their diversity in race, ethnicity, geography, and economic base, RCCI communities share common economic and social challenges. Educational levels are low. A sense of powerlessness derives

from absentee ownership of land and resources, a one-industry economy, and/or high dependence on government programs and transfer payments. And many of these communities are divided by conflicts between racial or ethnic groups, between rich and poor, or between natives and newcomers.

The Ford Foundation has funded RCCI from 1994 through 2001. It launched the Initiative, in collaboration with the nonprofit research organization MDC Inc., based on the conviction that economic development and improved access to education must be pursued together if distressed rural communities are to lift themselves out of poverty. RCCI's dual emphasis on economic development and education responds to the dilemma often voiced by rural developers: A community cannot attract or develop jobs without an educated workforce, but it cannot retain educated workers without a strong economy.

This dilemma hits especially hard in persistently poor rural regions, which have extremely low educational attainment, poor public schools, low levels of entrepreneurship, and little in the way of amenities to attract new business. In these regions, there are no quick fixes that will yield prosperity. Communities must build a foundation for development and work long term to bring about change.

The dual focus on education and economic development led the Ford Foundation and MDC to community and tribal colleges as agents for change. (Tribal colleges are 2- or 4-year colleges on Indian reservations, chartered by their tribes to provide education and preserve tribal culture.) Community colleges are institutions with the capacity and mandate to be involved in both place-based economic development and people-based education and training strategies. As "common ground" institutions, respected by

Sarah Rubin is a senior associate at MDC Inc.; funding for RCCI is provided by the Ford Foundation.

the public, private, and nonprofit sectors, community colleges can be a safe, neutral meeting place for forging collaborative approaches to community development. More than most organizations, they are highly regarded by people of all social classes. Community colleges have a broad mission, and they have the stature, stability, and flexibility to provide leadership for

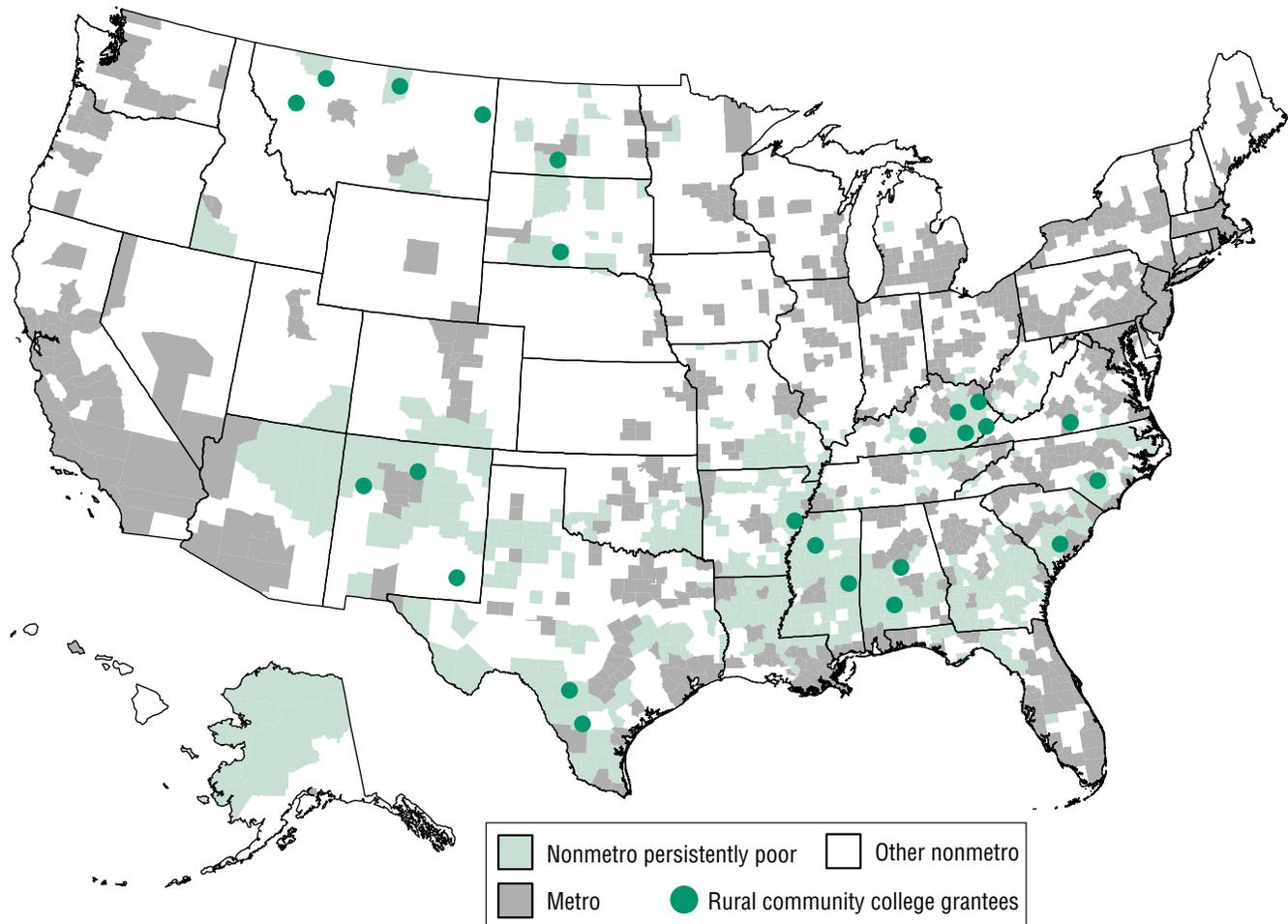
regional development. In many rural communities, they are the only institutions with a broad community-service mission and a stable stream of public funding.

There are hundreds of rural community and tribal colleges across the United States. The Ford Foundation and MDC envisioned that if RCCI demonstrated how a small group of rural colleges could

bring about change in their communities, the model could spread widely throughout rural America.

The 24 colleges that participate in RCCI receive modest planning and implementation grants from the Ford Foundation. They participate in learning and networking events. They receive onsite “coaching” from MDC and technical assistance from national experts on eco-

Figure 1
Colleges in the Rural Community College Initiative, 1997
Most RCCI colleges are located in counties with high levels of poverty



Note: Persistent-poverty counties had poverty rates above 20 percent in every decennial census since 1960.
 Source: Poverty counties prepared by ERS based on decennial census data, 1960, 1970, 1980, 1990.

conomic development and educational access. The first 9 colleges joined the Initiative in 1994; the other 15 received their first grants in 1997.

After 3-6 years on the ground, RCCI has yielded lessons about community colleges as catalysts for change in distressed rural areas, and its experiences can inform other organizations working for rural development.

The dual focus on education and economic development led the Ford Foundation and MDC to community and tribal colleges as agents for change.

A Process for Collaboration and Community Change

While RCCI has a distinct philosophy and strategic directions, it does not impose particular programs or strategies on sites. Rather, it fosters a climate of innovation that will spark local solutions.

RCCI provides a process designed to build broad-based collaboration between college and community and bring about long-term change. Each site forms a leadership team with members representing the college and the community. The team uses a strategic planning method called “Moving from Vision to Action” to analyze economic opportunities and educational needs in the region, articulate a vision, and set goals. The team then explores strategic alternatives, which may include new initiatives of the college and joint college/community efforts.

This team-led, collaborative process results in a plan of action that addresses important problems in the community. The team becomes a “home base” for a core group of individuals with a shared vision for their region who engage others to create a critical mass for change. Over a period of years, the team expands and continues to provide leadership. Perhaps most important, the RCCI team models an important process that characterizes healthy, successful communities—inclusive decision-making. When seeded by RCCI, this approach can spread to other community endeavors.

Southeast Community College in Cumberland, Kentucky, illustrates what this process can accomplish. Southeast’s RCCI team, now in its fifth year, functions as a “think tank,” generating and spinning off community development and education initiatives. Dr. Bruce Ayers, Southeast’s president, says, “The team, including people from outside the college, has made the difference. It has been the catalyst for change and has opened doors for us—enabled us to make inroads into the community that we wouldn’t have made otherwise.” The team includes the college president and selected faculty and staff, business owners, a banker, a former coal miner, elected officials, grass-roots leaders, K-12 teachers/administrators, and human service agency staff. This diverse, yeasty mix of folks, who before RCCI had not worked together, has looked hard at community problems, come up with innovative solutions, and brought in the resources and partners needed to implement new projects.

Southeast Community College serves three counties in the heart of the Kentucky coalfields—Harlan,

Bell, and Letcher. Like much of Appalachia, the region suffers from loss of mining employment, little business development, and weak public schools with a low college attendance rate. Local politics are dominated by a small group that has held control for years. The team decided to tackle these problems head-on with projects to: (1) make more capital available for new business development, (2) help disadvantaged young people attend college, and (3) broaden the base of community leadership through leadership development programs.

Southeast’s work on business development finance illustrates how the college/community team provided the determination, innovative ideas, and the right mix of leadership to make things happen. The team began by holding a day-long community workshop where business and civic leaders discussed barriers to small business development in their counties and learned about development finance models from around the country. After the workshop, team member Ken Thomas, President of Harlan National Bank, and RCCI Coordinator Paul Pratt talked with local banks about creating a community development corporation. Five banks signed on to form the Pine Mountain Community Development Corporation, creating a \$105,000 loan fund for small businesses that could not qualify for conventional loans. The college provided a staff person (Paul Pratt) to screen loan applicants and provide technical assistance to borrowers.

The initial fund was lent out within a year, indicating a high unmet demand for microloans in the region. (Since 1997, the fund has written 17 loans ranging from \$800 to \$25,000 and has helped

Economic Development Roles for Rural Community Colleges

- Mobilize regional leadership for economic development.
- Be the center of a regional workforce development system attuned to employers' changing needs.
- Promote technology transfer and competitiveness.
- Promote entrepreneurship and small business development.
- Develop programs that target poor people while creating jobs.
- Encourage a strong education ethic.

Source: MDC, Expanding Economic and Educational Opportunity in Distressed Rural Areas: A Conceptual Framework for the RCCI, Chapel Hill, NC, May 1998.

establish 70 jobs.) Building on the experience of the Pine Mountain CDC and with encouragement from the RCCI team, Paul Pratt approached the numerous loan funds that serve eastern Kentucky and urged them to pay more attention to the southeastern corner of the State, an area that had been largely ignored. After 2 years, these conversations have led to the creation of the Appalachian Development Alliance, eight development funds that will pool resources and access new sources of public and private capital for business development throughout eastern Kentucky.

Economic Development Strategies

Across the country, workforce education is the most widespread contribution of community colleges to economic development, and RCCI encourages colleges to provide high-quality workforce education. But it also urges them to look beyond workforce development—especially in places where there is a small or shrinking job base—and be more proactive in building the economy.

Within the spectrum of potential economic development roles (see “Economic Development: Roles for Community Colleges”), the areas that have sparked the most activity within RCCI are mobilizing regional leadership and

In the RCCI, ‘economic development’ means creating jobs, raising incomes, generating wealth, and reinvesting that wealth in the region’s businesses, institutions, and people. It means increasing the overall level of economic activity in the region—creating opportunities for people to start and operate profitable businesses, do productive work, and raise their standard of living. And it means targeting economic opportunity to people who have been left out. (RCCI, Conceptual Framework)

entrepreneurship/small business development. This is not surprising, given the nature of RCCI regions. Small business development is a logical strategy in rural communities that are unlikely to attract businesses from the outside.

Leadership strategies are important because in many RCCI regions, there is no widely shared vision for the community and power is held by a narrow group. Civic alignment—shared commitment among key stakeholders to improving the quality of life for the whole community—has been weak or absent in most RCCI communities. By preparing new people for leadership roles, introducing new ideas about economic development, and initiating a broad-based dialogue on the region’s future, RCCI colleges are bringing about alignment in their communities. They are helping create a foundation for equitable economic development.

Mobilizing regional leadership. RCCI teams have provided leadership for regional development in three ways: organizing economic summits; initiating community

leadership programs; and leading regional planning efforts.

Economic summits are designed to engage citizens in discussions about the region’s future and introduce them to new ideas about development. The summit at



Photo courtesy Dale Simms, USDA/ERS.

Southwest Texas Junior College in Uvalde was a case competition, where MBA students from four universities studied the region's economy, devised economic development strategies, and presented their ideas to a panel of regional leaders and international experts in a competition for prize money. Technical College of the Lowcountry in Beaufort, South Carolina, brought together leaders from its fragmented four-county service area to consider options for regional development. The college's status as a neutral institution helped leaders put aside their usual provincialism and begin discussing how they could work together.

Mountain Empire Community College in Big Stone Gap, Virginia, brought national experts on community development to their 1999 "Moving Mountains Economic Summit" to introduce local citizens to new ideas and strategies. New Mexico State University-Carlsbad studied the method Chattanooga had used to engage citizens in an urban revitalization effort and then tried out a similar grassroots approach in their city of 25,000. After 6 months of planning, nearly 2,000 people attended a daylong

event in the fall of 2000 to express their vision for the community's future. In both Carlsbad and Big Stone Gap, citizens are working on strategies that emerged from the meetings.

Community leadership programs have been initiated by some RCCI teams to encourage and empower more people to participate in community affairs. In Meridian, Mississippi; southeast Kentucky; southwestern Virginia; and Carlsbad, New Mexico, the college/community teams designed leadership programs to reach out to folks who don't normally sign up for Chamber of Commerce leadership programs—including young adults, members of racial and ethnic minority groups, and lower-income people. In the Meridian program, now entering its second year, the 32 participants have started several community development projects, including a new information referral service for social service agencies and a collaborative effort to better serve children in poverty.

Sitting Bull College, a tribal college serving the Standing Rock Reservation in North and South Dakota, has filled a vacuum in its

region by leading a planning process for economic development. The RCCI team organized community meetings all over the reservation to develop a plan for spending millions of dollars owed to the tribe by the Federal Government. The money was earmarked for economic development and could not be released until the tribe reached consensus on a plan.

How have these leadership efforts helped lay a foundation for economic development? The Southwest Texas case competition, held in 1998, has had the longest time to bear fruit. It sparked a new sense of regionalism in a large, multicounty area. Towns that had never collaborated began talking about regional development, and these efforts led to the area's designation as a rural Enterprise Community. In the other communities, new people are involved in shaping their communities' future, whether through participation in a leadership program or in discussions about regional development. While it is too soon to see long-term impact, in all these places there is a new sense of empowerment and optimism about revitalizing the community.

Entrepreneurship and small business development. Several RCCI sites have targeted small business development as the centerpiece of their economic development strategy. Tribal colleges Salish Kootenai and Fort Belknap, both in Montana, have started or expanded business assistance centers. The center at Fort Belknap College provides Internet access, technical assistance, and training to prospective entrepreneurs. In its first 3 years, the center at Salish Kootenai College helped clients start 100 businesses, including 15 microenterprises owned by former welfare recipients. Salish Kootenai College also has developed a new entrepreneurship curriculum geared to Native Americans that is being used by several other tribal colleges. This curriculum helps aspiring Indian business owners deal with the conflict between communally focused tribal culture and individualistic, entrepreneurial values. It profiles successful Indian business owners as role models.

Some RCCI sites have started small business incubators in partnership with other agencies. Southeastern Community College in Whiteville, North Carolina, manages two incubators in buildings owned by the local electric co-op. The older of the two, in operation since 1991, has produced 9 successful businesses and 645 jobs. Southwest Texas Junior College recently started an “e-commerce incubator” to help local businesses with web-based marketing. In 1999, Northern New Mexico Community College in Espanola partnered with the Johnson Controls Company to create a “kitchen incubator” on campus—a specialized facility that helps start up food-processing businesses. The college teaches food-processing

classes at the incubator, and it provides space, equipment, and technical assistance to help entrepreneurs produce and market salsas, jams, and other food products made from local crops.

Because of the rich artisan tradition in many RCCI regions, some sites have targeted handcrafts as a promising small business sector. Hazard Community College in eastern Kentucky is building a new campus that will specialize in traditional Appalachian arts; plans include classes, an incubator for handcraft businesses, and a retail store. Other RCCI teams are exploring collaborative web-based marketing of handcrafted products from their regions.

Improving Access to Education

Community college advocates pride their institutions on access, which usually means simply that community colleges are low-cost, open-door institutions where anyone with a high school diploma or equivalency can enroll. RCCI takes access several steps further. “For RCCI, the term ‘access’ encompasses both access to the college and access through the college to expanded opportunities—including further education and productive, rewarding work” (RCCI, Conceptual Framework). This notion is further elaborated in table 1.

RCCI sites have expanded educational access in several significant ways. They are helping prepare middle and high school students for college and helping disadvantaged students succeed in college; they are preparing unemployed adults for work and providing skills training to adults in the workforce; they are using distance learning to extend college courses to people living in remote areas. A few examples will give a flavor of

the diverse access activities at RCCI sites.

Partnerships with secondary schools. Meridian Community College (Meridian, Mississippi) has organized “MathFirst,” an ambitious effort to improve public education in the community. (Such partnerships are increasingly present in larger cities but rare in small towns.) In 2 years, the group has raised \$5.3 million for improved school programs, including reading programs in the elementary schools and new math curricula in middle and high schools. The city and county school districts have started “Parents as Teachers Programs” to help parents prepare their children for success in school. The community college has lowered its student/teacher ratio in math classes from 30-1 to 20-1. MathFirst has involved many citizens in the schools, resulting for the first time in parents helping to select new principals for three schools.

Focus on families. Fort Peck Community College, a tribal college serving the Fort Peck Reservation in north-central Montana, decided early in RCCI that the best way to serve its community was to strengthen families, the core unit of community. The college has opened a community wellness center, which provides exercise classes, diabetes management, and nutrition counseling. It has initiated youth programs and has helped start two preschools where children learn their native tribal language. The college reorganized itself, creating a Department of Family and Community Development to keep family well-being at the center of its outreach efforts.

Welfare to work. Moving people from welfare to work is a particular challenge in distressed rural areas where jobs are scarce.

Table 1

Access to education: Approaches for the future

New economic realities in rural America demand an expanded definition of access

Typical past and current approaches	Approaches for the future
“Open door” admissions	Aggressive outreach to groups that need education, including young high school dropouts, working and unemployed adults
Primary goal is enrollment	Multiple institutional goals emphasize positive outcomes for students, including retention, graduation, and placement in further education and jobs. College helps each student achieve his or her individual goals
Emphasis on credentials – awarding of degrees and certificates	Emphasis on competencies – learning what one needs now, while keeping the door open for future learning, as well as graduation and certification
Emphasis on teaching	Emphasis on learning – student-centered, individualized approach
College relationship with students begins at age 18	College works with middle and high schools to prepare more students for postsecondary education and raise the college-going rate in the region
Enroll those who can travel to campus	Extend classes to people in remote areas and at worksites
College operates in isolation from other educational institutions	Strong links with secondary schools and 4-year colleges/universities

Source: MDC, Expanding Economic and Educational Opportunity in Distressed Rural Areas: A Conceptual Framework for the RCCI, Chapel Hill, NC, May 1998.

Coahoma Community College in Clarksdale, Mississippi, has had success in linking welfare recipients in isolated Delta towns to jobs in casinos as a first rung on the employment ladder. The college arranged an “adopt-a-town” partnership between the Grand Casino in Tunica and 26 small towns in the Mississippi Delta. The college provides pre-employment training and offers opportunities for skills upgrading for workers. The casino provides transportation for the first 6 months, until the worker can afford his or her own transporta-

tion. So far, over 1,000 people have been employed through this program, and over 650 have left the welfare rolls.

Distance learning/telecommunications. Several RCCI colleges have initiated distance-learning networks to link their campuses with K-12 schools and universities, hospitals, and other community agencies. Southwest Texas Junior College formed a partnership with 21 school districts in its service area to create a distance-learning network. In 1996, the college and school districts pooled their resources to hire

a grant writer who raised several million dollars for equipment and infrastructure. Today, the college offers many courses via interactive television to remote high schools and to its satellite campuses.

Challenges and Lessons

After working with the RCCI sites for 6 years, MDC is convinced that community colleges can be effective catalysts for change in distressed rural areas. However, given the economic forces working against these regions, it is not easy.

Clearly, involvement in educational access comes more easily to colleges than does economic and community development. But RCCI colleges have shown they can help build a foundation for improved prosperity in their communities not just through education and workforce training but also by mobilizing regional leadership, nurturing new leadership, and providing support for small business development.

Community and tribal colleges are institutions with big missions and small budgets. Their faculty and staff wear many hats and are stretched thin, and funding for non-instructional activities is scarce. At tribal colleges, funding is barely adequate even for traditional college activities. The small RCCI grants provided by the Ford Foundation (\$50,000-75,000 a year) have helped by providing seed money to support a new staff position or free up a faculty member to work on community development. The grants have enabled the colleges to host meetings, travel to learning events, and invest in professional development. Many sites have leveraged substantial funding for RCCI-generated projects.

Even more important than the grants have been the learning opportunities provided by RCCI. In focus group discussions, many college presidents and team members have said the peer-learning aspect of RCCI was instrumental in introducing them to new ideas and providing moral support for the intense personal commitment that ultimately made things happen in their site. Exposure to national experts in educational access and economic development was also important. And being part of a national demonstration program allowed their colleges to take risks and try new things that they would not otherwise have done.

Not every rural community college is ready to become a catalyst for community change. The RCCI colleges that have been most effective in sparking community change had three factors in common. First, each had a president and/or RCCI

team leader with strong personal commitment to improving economic opportunity in the region and a vision for community change. Second, as institutions, they had a level of financial and organizational stability that allowed the president and others to devote attention to nonacademic concerns. Third, they were flexible institutions—open to new ideas and ready to build their capacity to take on new roles.

In every place where RCCI has had an impact on the community, the college itself has also changed. Presidents and team leaders describe their institutions as becoming more “entrepreneurial,” more sensitive to their rural clientele, more serious about outreach, and more community-focused. Involvement of community members on the RCCI team, along with the strategic planning process undertaken by the team, helped bring about these changes.

RCCI is unique among rural development initiatives in its geographic and cultural diversity. When RCCI teams visit each other’s campuses for learning events, Indians from the Northern Plains interact with Latinos from the Southwest and Blacks and Whites from the Deep South and Appalachia. Team members have told us that this cross-cultural learning has been one of the most valuable aspects of RCCI.

In an effort to continue such learning opportunities—and to speak out together for their communities’ needs—the RCCI colleges recently created the Rural Community College Alliance. The Alliance is a membership organization open to any rural college that is committed to the values of RCCI. Founding members hope to expand the Alliance and continue its life well beyond the end of the RCCI grant period. **RA**

For Further Reading . . .

MDC, *Expanding Economic and Educational Opportunity in Distressed Rural Areas: A Conceptual Framework for the Rural Community College Initiative*, Chapel Hill, NC, May 1998.

MDC has produced many print and video materials for RCCI, which are available to the public. These include the *RCCI Toolkit* (a rich compilation of resources on rural development strategies and process), the *Rooster* (free RCCI newsletter), and several policy papers. These and other resources are described on the RCCI website at www.mdcinc.org/rcci. For more information about RCCI or the Rural Community College Alliance, contact Sarah Rubin at MDC, srubin@mdcinc.org or 919/968-4531. The American Association of Community Colleges is currently completing a multiyear assessment of RCCI for the Ford Foundation. For copies of their publications, see “Initiatives” at www.aacc.nche.edu.

Innovation and Replication

Can Community College Successes Be Repeated?

Cynthia D. Liston
Linda L. Swanson

Some rural community colleges have engineered effective partnerships to reverse declining local economies by sponsoring innovative training and other practices. The small scale and isolation of many rural community colleges can be overcome by replicating successful and creative practices from elsewhere, thus adding to a network of innovative and locally rooted colleges.

Small entities of any kind—whether businesses on Main Street, rural governments, or rural community colleges—benefit by banding together and learning from each others' mistakes and successes. Successful programs at rural community colleges, such as the ones described in this article, could take root at other community colleges if the right conditions exist.

What improves the likelihood of a program's successful replication? Replication is never exact, and can occur two ways. First, the underlying idea or solution can be repeated but carried out differently. For example, in a rural area without a major employer, a focus on training in entrepreneurship may boost the local economy. Entrepreneurial education would be the program to replicate, but the approach might be tailored to the new school's surroundings. Second, elements of a successful program can be duplicated to reach a different goal. For example, creating an alliance between the college and local organizations would advance virtually any goal that benefits the local

area. In this instance, it is the process and mechanisms that are replicated, not the program.

Drawing from benchmark practices at rural community colleges as identified through USDA's Fund for Rural America project, this article presents innovative activities at rural community colleges that improve local economies, and analyzes factors affecting their replicability by other colleges.

Community Colleges Are Important to Rural Economic Development

Rural America is struggling to build and sustain the competitiveness of local industries at a time when requirements for advanced technologies and skills are increasing. In the recent past, industries chose rural sites because of their low costs and available, nonorganized labor; these companies did not require access to advanced technology or skills. Today, economic and technological forces are shifting the factors that afford competitive advantage to higher levels of skills and technology. Rural 2-

year colleges are helping rural businesses (especially locally owned and small and mid-sized enterprises) and labor forces adapt to the new economy.

Community and technical (2-year in the U.S.) colleges have vast experience in delivering innovative services, education, and training to rural industries to help them modernize. Because 2-year colleges are less ensconced in tradition and are not as bound by State requirements as most 4-year institutions, they are freer to respond to market demands and conditions. As a recent issue of the Appalachian Regional Commission's quarterly magazine noted, "Community colleges refuse to be typecast. They repeatedly learn to play new roles...they provide windows to the world outside their open areas and—at least those under strong leadership—consider it a moral imperative to serve as agents of change" (Baldwin, p. 4).

More specifically, the college practices that reinvigorate communities include those that:

Cynthia Liston is Director of Workforce Development at Regional Technology Strategies, Inc. in Carrboro, NC; Linda Swanson is a self-employed research consultant living in North Carolina's Randolph County.

- Represent creative alliances with businesses, other educational institutions, or related agencies;
- Overcome skill shortages, allowing businesses to operate at capacity and/or expand;
- Provide displaced, underemployed workers or youth a second chance;
- Bring new information about technology, markets, or better business operations to small and mid-sized firms;
- Encourage or support entrepreneurship;
- Raise productivity by improving technical education programs;
- Enhance links with and knowledge of the international economy.

Many administrators and faculty at community colleges are isolated from innovative practices, short of information obtained from regional meetings, conferences, and journals. Such information often lacks the depth, detail, and objectivity to support improvement and change. And this shortcoming particularly besets small, underserved, and rural community colleges.

Regional Technology Strategies, Inc. (RTS), an economic and workforce development policy organization located in Carrboro, NC, initiated a competition in 1998 to identify innovative and exemplary (benchmark) practices related to rural development at community colleges. This project is being conducted under the auspices of the Trans-Atlantic Technology and Training Alliance (TA3), a consor-

tium of 28 leading technical colleges in the U.S. South, Europe, and South Africa that supports exchange and innovation in technical education and regional economic development through collaborative projects, conferences, and research. RTS, along with Learning and Teaching Scotland in Glasgow, manages this alliance, begun in 1995 as an outgrowth of a U.S.-only network of community colleges called the Consortium for Manufacturing Competitiveness created by the Southern Growth Policies Board in 1988.

Guiding TA3 is the opportunity to observe and examine practices outside U.S. borders (particularly in other advanced industrial economies). For the same reason, the Fund for Rural America project chose to focus not only on successful practices in the United States, but also on those undertaken in other nations by institutions most closely resembling community colleges. These include, for example, Further Education colleges in the UK, Institutes of Technology in Ireland, technical colleges in Denmark, and vocational schools in Austria.

For the Benchmark Practices for Local Economies competition, colleges could nominate their own program or outside organizations could do so. The 6-month nomination process occurred through economic development and community college conferences and meetings, announcements on numerous listserv newsletters, direct mail to heads of State community college systems, and an advertising campaign in *Community College Times*. RTS sought international nominations through contacts with education ministries, European Union officials, and two European-based education and economic develop-

ment consultants. RTS received 122 nominated practices at community and technical colleges, including some from colleges in countries as far flung as Iceland and New Zealand.

Factors Affecting Successful Replication

Programs Can Capitalize on the Area's Natural Environment

Many rural community colleges are in remote places, making it difficult to attract both commuters and manufacturing concerns that require frequent shipment of goods in and out of the area. Yet the same areas are often rich in natural renewable resources, such as fish or timber. A community college can strengthen the local economy by designing a program to increase the local area's proportion of total revenue generated by this resource.

Inverness College, located in the Scottish Highlands (a region threaded with rivers and surrounded by the sea) implemented a program to increase the local residents' share of the fish farming industry. The program also facilitates college attendance for the residents in the college's catchment area.

Students in Inverness' aquaculture program participate in onsite training as an employee of a fish farm and online training with an Internet-based learning site they can access from home. For those without Internet access, the course is also available on CD. The program's design reduces lost manpower for the employer and lost income for the employee, while providing training specific to the industry as well as training in computer skills. Completion of this competence-based program results in a nationally recognized certificate, increasing a student's career

How Benchmark Practices Were Chosen

RTS has identified benchmark practices, not benchmark colleges. Few (if any) colleges do everything well. And indeed most colleges excel in at least one area. The intention here has been to find a discrete program or initiative within a community college that has demonstrated a profound effect on nonmetro areas in terms of innovation, sustainability, scale, and local support/partnerships.

“Benchmark” practices were selected in a two-stage process. Based on information provided by the colleges, a panel of economists, community college executives, policymakers, and rural development specialists selected 62 out of the 122 nominated practices to investigate further for possible inclusion in the final compendium. After this first cut, RTS conducted telephone interviews with three references for each program who were either partners, customers, or funders of the college practice in order to validate program outcomes. RTS also requested additional supporting documentation of program impacts, press coverage, etc. from each of the colleges. The panel met again to consider these additional data and selected 43 as “benchmark” practices. RTS will publish (in hard copy and on the web) brief case studies of each of these practices, plus more indepth case studies of seven of the most interesting ones in 2001.

This project enables other colleges to replicate, in part if not in whole, elements of noteworthy practices. By identifying the contexts and environments (economic, natural, structural, etc.) conducive to such innovation, aspirant colleges are better able to assess and adapt practices.

To provide this “richer” context, the case studies include data about the community in which the college is located and address replicability issues. Further, the final compendium of benchmark practices will cross-classify practices according to the type of economy in which they operate (e.g., primarily agricultural, manufacturing, or natural resource-based), geographic location, and program target, so that college staff and others may more easily find matches for their own circumstances.

options and chances for advancement. The program could be easily modified according to other industry standards.

Entrepreneurial Training Eases Loss of a Large Employer

The loss of a single large employer or the decline of an industry sector can create a sharp economic downturn in a rural area. Attracting a new large employer to fill the void is not easy. A community college program that teaches entrepreneurial skills can enable

students to earn an income independently and can instill flexibility in a workforce.

Stanly Community College in North Carolina rose to this challenge, with the decline of the textile industry, by targeting underskilled and underemployed residents with entrepreneurial interests. Stanly adapted the Rural Entrepreneurship through Action Learning (REAL) program, which originated in Georgia and North Carolina. Stanly’s REAL program grounds a student in market analysis, business

plans, and target population studies, then provides the opportunity to apply for short-term loans to launch the intended business. Since 1993, REAL graduates have established more than 30 new businesses in Stanly County.

Community College and Local Industry Alliance

Industries in rural areas throughout the United States have cited lack of adequate training as undermining the local labor force. Community colleges that join forces with a local industry to develop courses and offer apprenticeships can improve both a student’s learning and earning capacity.

Great Basin College in Nevada energized the regional economy by helping a network of mining companies train local technicians to modernize operations and reduce waste. The partnership has lasted for a decade, testimony to the benefits the industry has realized by cultivating a high-skill labor pool rather than importing technicians from eastern coal mining areas. While the focus of the program is mining, some graduates have secured employment in other industries such as manufacturing and construction.

The mining industry’s and the college’s ability to tailor the program to evolving needs has been crucial to its endurance. The most significant changes have been altering training schedules so that companies are not left short-handed and expanding training from industrial maintenance to diesel, electrical, and welding technology. Similar partnerships could be set up to support any industry cluster in a remote area.

Community Partnership in Planning

In rural regions with a declining economy, often the local workforce has already lost its most highly trained members. Halting the workforce decline requires training or retraining the remaining workforce as well as the youth approaching working age.

Community businesses and local organizations that work with lower-skilled residents each have a stake in turning the local economy around. A community college can enrich such a program by partnering with businesses and other community-based organizations from planning to placement.

Hibbing Community College in Minnesota created a successful Information Specialist and Workplace Skills Upgrade program by teaming with community groups—such as a public housing organization and a family investment center—knowledgeable about people needing training, as well as local businesses in need of trained employees. The program tailors training opportunities to the needs of local businesses and produces a specialized workforce attractive to similar businesses considering relocation. By partnering with local community agencies, the college's offerings are more accessible to its nontraditional students.

This very outreach makes local investment in Hibbing's program attractive, fostering its continuation and ongoing improvement. A community college with faculty expertise in the selected training areas can replicate Hibbing's success by creating strong local "stakeholder" partnerships to help guide the program.

Structural Elements Can Affect Replication Efforts

Quality of Leadership Plays Important Role

College leadership and the personal strengths of key personnel play a large role in the success of any program. When a college president makes an institutionwide commitment to a practice and commits resources to help ensure results, there is a greater likelihood of success.

With two major plant closings in 5 years, North Carolina's Haywood County was facing economic decline in the early 1990s. But despite ongoing economic distress in surrounding counties, the county has held its own, in part because of Haywood Community College's Entrepreneurial Learning Initiative. This program applies entrepreneurial ideas to all of the college's curricular programs and encourages the development of small business enterprises. Between 1990 and 1998, two-thirds of the graduates of the professional crafts program started their own business, and 88 percent were still in operation. The collegewide program has spawned a regional entrepreneurial resource center, an annual entrepreneurial conference, a network of entrepreneurs that cross regional boundaries, and a quarterly entrepreneurial newsletter.

This comprehensive reach stems from the college leadership's commitment, a commitment that also infuses college actions with entrepreneurial principles. College leaders help staff, faculty and students think and act as responsible, proactive, interdependent entrepre-

neurs. The goal is making entrepreneurship not just a program but a mode of operation for the college.

State System Influences the Nature of Replication

Replication efforts can be hampered or fostered by the State system in which a college operates and by its governance structure. Some community colleges are autonomous within their systems and enjoy leeway to enact programs and undertake initiatives independently. Others are more tightly linked to the State community college system and have less independence—particularly fiduciary independence. However, with respect to innovation and replicability, there can be advantages to both situations.

A tightly linked community college system (such as that in Colorado, New Hampshire, or Georgia) means innovations are more quickly replicated and increase in scale. For example, several community colleges in Colorado jointly piloted an e-commerce training program for businesses. The timeframe for the program's development was quite short; however, colleges pooled resources by working together. Other community colleges in the State have already adopted the resulting training program, particularly in rural areas where businesses are less aware of the Internet's utility.

Conversely, colleges that are more autonomous (such as those in Ohio, North Carolina, and Texas) have more flexibility to respond to local needs and to assume nontraditional roles. For example, Hocking College, a public 2-year

college in southern Ohio, offers innovative and leading-edge curricular programs. The college president has discretion to start and end programs without State approval and he has frequently done so. The college has recently initiated programs such as ecotourism, aquaculture/fish hatchery management (which includes a college-run fish farm), archeology, global positioning systems, and geographic information systems, all of which are very rare among 2-year colleges. The college is using these programs to help establish competitive niche industries within this heavily forested rural area, particularly in the area of ecotourism. Hocking is also very active in downtown revitalization and other community initiatives.

Funding Scarce for Sustaining or Replicating Innovative Programs

Finding money to sustain or replicate innovative practices is often difficult. Frequently colleges can successfully compete for outside money to seed a new project or idea, but this money soon runs out, and a practice is then expected to be self-sustaining or the college must obtain other support. Once a project can no longer be called a “pilot” project, funding is usually based on the number of full-time students or its equivalent, which is low at small rural colleges. Replication efforts also require funding. Replication can involve innovation, and by adapting the basic program, such efforts support sustainability and can create a more widely useful tool of economic development.

The benchmark practices compendium (to be published in 2001) illustrates the ways that some colleges are supporting sustainability. Two common scenarios for sustain-

ability are obtaining strong local business support and fee-for-services. For example, when a 2-year grant from the Ewing Kauffman Foundation to Mississippi’s Meridian Community College to start its JumpStart entrepreneurship program for minorities ended, college leaders convinced local business leaders to fund the program. At Hagerstown Community College’s Technical Innovation Center in western Maryland, the business incubator with shared manufacturing facilities became self-sufficient after 2 years through aggressive marketing and comprehensive services that are attractive to startup companies.

Frequently colleges can successfully compete for outside money to seed a new project or idea, but this money soon runs out, and a practice is then expected to be self-sustaining or the college must obtain other support.

In these instances, the program or service has an immediate and concrete value. Securing funding for programs whose outcomes are long term, of a more public nature, and/or harder to measure remains problematic.

Replication Can Refine and Improve Programs

Through successive replications in different settings, an underlying program model arises, with a struc-

ture and a set of goals that can be adapted by other community colleges. For example, 3 of the benchmark practices named in our group of 43 are based on a national program, Rural Entrepreneurship through Action Learning (REAL), yet each is successfully adapted to meet particular local needs.

In North Carolina, Stanly Community College used the REAL model to reverse the decline of the textile industry and build the local economy from within by retraining the workforce with skills that foster independence and flexibility. Also in North Carolina, Haywood Community College is implementing the REAL program across the college’s entire curriculum, as described earlier. At Elizabethtown Community College in Kentucky, the REAL model was incorporated into the State’s School-to-Work program, showing middle-school children the relevance of education, familiarizing them with postsecondary education, and introducing them to entrepreneurial career paths.

The many versions of the REAL model and their success prove that some programs actually lend themselves to replication. And with evidence of the model’s success in other regions, potential investors can be more confident that the proposed project will yield results.

Policy Lessons

It is evident from the diversity and scope of innovative practices that community colleges can be effective catalysts for economic and workforce development in rural communities. However, barriers and shortcomings in terms of resources and access mean that innovation, and hence replication (since replication is based on there being innovative practices worth

imitating), is too rare. What can policymakers do to foster innovation among rural community colleges?

Increase resources.

Community colleges are greatly underfunded in most States. Funding the improvement of facilities, increasing faculty pay (and thereby attracting better faculty), and initiating responsive programs would help spur innovation.

Create an innovation fund.

In 1997, the North Carolina Rural Center held a competition for rural community colleges to fund projects that spur economic development in their regions. Resulting projects included working with a group of firms to create a joint training program to improve worker readiness for local companies, imbedding entrepreneurial content in an electronics program, and bringing together local companies in a network to identify common issues for joint actions.

Support college networking.

Sponsoring conferences, writing case studies and articles about innovative activities, and creating more forums for community colleges to interact encourages peer learning and replication. A more formal networking structure is to designate and fund certain colleges in a State as Centers of Excellence (preferably through a competitive process) either for a particular industry (electronics, metalworking, information technology, etc.) or for a specialty such as distance learning. While the center would take the lead on developing new initiatives and act as a statewide resource, it should have specified

partner colleges with which it shares expertise and resources. Alabama uses this approach, and North Carolina is considering it.

Encourage links with local stakeholders.

Policymakers should consider incentives for colleges to engage local businesses, economic development specialists, and community groups in their activities. Alliances among local stakeholders leverage resources and ensure responsiveness to an area's particular needs.

Use community colleges as hubs for information technology (IT).

The "digital divide" between rural and urban areas is immense. Most States are grappling with approaches to make sure rural areas are not left behind. Community colleges, often the only higher-education option in a rural area, can narrow the gap, and indeed many benchmark practices involve IT. Roles include hosting hard infrastructure, such as being a node for broad bandwidth access to the Internet and brokering services to local businesses, and providing

IT skills to new and incumbent workers. Rural colleges can use IT to great advantage in distance education.

Conclusions

The networks generated when one college repeats another college's program can reduce the effects of small scale and isolation felt by many rural community colleges. Replication is an efficient way for small colleges to create effective programs for their area.

Connecting with other colleges and envisioning solutions used in other economic environments are also activities that spawn ideas for one's own environment. Many forms of replication are innovative in their own right. Adapting a program created to address one situation so that it is just as effective in another setting is itself a creative process. Such adaptation pushes those who are planning a replication effort into an area of broader consideration and scope, setting the stage for a continuous loop between innovation and replication. **RA**

For Further Reading . . .

Fred D. Baldwin, "Appalachia's Best-Kept Secret," *Appalachia: A Journal Devoted to Regional Development*, Vol. 29, No. 3, Sept.-Dec. 1996, pp. 4-11.

James R. Mahoney and Lynn Barnett, eds., *The Learning Edge: Advanced Technological Education Programs at Community Colleges*, Washington, DC: Community College Press, 2000.

Regional Technology Strategies, Inc. will publish *Cultivating Successful Rural Communities: Benchmark Practices at Community and Technical Colleges* in 2001. To order a copy when available, go to www.rtsinc.org.

New Assistance for Low-Income Areas and Infrastructure

Richard J. Reeder

In December 2000, taking advantage of growing Federal surpluses, Congress passed the Consolidated Appropriations Act of 2001 (PL 106-554), establishing several significant new programs and tax incentives for rural (and urban) development. This legislation included the Community Renewal/New Markets provisions that particularly benefit economically distressed areas, plus a new multi-State regional development authority for the Mississippi Delta area. Other noteworthy changes for 2001 include increased funding for infrastructure programs, including transportation, water and waste systems, community facilities, schools, and public works. Some other programs important for rural development, such as housing and business assistance, will also receive additional funds in 2001. These changes should help bolster the economies of many rural areas at a time when national economic growth has faltered.

Meanwhile, regulatory actions continue to affect transportation,

natural resources, and environmental policy, and the decision to revise Metropolitan Statistical Area definitions, including a new category called Micropolitan Statistical Areas, could have far-reaching implications for development in many rural areas.

This article describes some of the key changes in Federal policy affecting rural development in 2001. Tables cover most of the major programs of importance to rural development, along with recent changes in funding and an indication of the types of places affected most by these programs, based on recent geographic allocations.

Community Renewal/ New Markets Initiatives

This effort to stimulate the economies of distressed communities arose from a bipartisan agreement between former President Clinton and House Speaker Dennis Hastert. Among the New Markets provisions are:

- Nine new empowerment zones, two rural and seven urban, which will receive tax incentives and grants;
- Enhanced tax benefits and a time extension to 2009 for existing empowerment zones;
- The New Markets tax credit for equity investments in certified businesses or partnerships serving low-income communities or individuals; and

- Small business loan and technical assistance targeted to underserved/low-income areas.

The Community Renewal provisions will establish 40 renewal communities—12 rural and 28 urban—that will receive a variety of tax incentives (see “Empowerment Zones and Renewal Communities,” p. 33, for more details).

The addition of 9 new empowerment zones will make a total of 40 empowerment zones (10 rural, 30 urban), which matches the total number of new renewal communities. Tax benefits were extended for existing empowerment zones until December 31, 2009, when the tax benefits for the new empowerment zones and renewal communities expire. This may be viewed as an interesting social experiment to determine which approach is best for local revitalization in distressed areas. On the one hand are the 40 empowerment zones with their strategic plans for comprehensive, sustainable community and economic development. On the other hand are the 40 renewal communities, whose plans are to focus more on reducing taxes, regulations, crime, and governmental inefficiency. Another interesting comparison is between empowerment zones (which receive substantial funding) and enterprise communities (which receive much less funding). Perhaps with a mind toward judging which of these approaches is most effective, Congress instructed the General Accounting Office to audit and report on the progress of

Richard J. Reeder (202-694-5360, reeder@ers.usda.gov) is a senior economist in the Rural Business and Development Policy Branch, Food and Rural Economy Branch, ERS.

each of these programs (and on the new markets tax credit) in the years 2004, 2007, and 2010.

The new markets tax credit represents a more expansive approach, since the tax credit is available not just to businesses in 80 designated places, but to businesses that serve any census tract that qualifies as a “low-income community,” defined as having at least 20 percent poverty or median family income no more than 80 percent of the State median (State nonmetro median for nonmetro areas; overall State median or State metro median for metro areas). Allowing eligibility based on incomes lower than the State median family income makes it easier for at least some places to qualify in every State, even in States with relatively high median incomes and relatively little poverty.

Businesses in distressed areas also will receive new forms of credit and technical assistance. The Small Business Administration (SBA), which was reauthorized as part of this same legislation, has several new programs targeted to distressed areas. SBA’s New Markets Venture Capital program is authorized for \$30 million in technical assistance grants and \$175 million in debenture guarantees to companies investing in low-income areas. BusinessLINC (Learning, Investment, Networking, and Collaboration) is authorized at about \$7 million per year to provide mentoring and other such forms of assistance via partnering small firms with larger firms. Also new is PRIME (the Program for Investment in Microentrepreneurs), funded at \$15 million. This legislation also targets some other SBA programs to distressed areas, including One Stop Capital Shops and HUBZones. Distressed areas

should also benefit from Community Development Financial Institutions (administered by the Treasury), whose authorized funding was increased by about one-fourth, to \$118 million.

Delta Regional Authority Established

The end-of-year omnibus legislation also established a new regional development organization, the Delta Regional Authority (DRA), which should help spur development in 235 counties covering 8 States (Alabama, Arkansas, Illinois, Kentucky, Louisiana, Missouri, Mississippi, and Tennessee). Patterned after the Appalachian Regional Commission (ARC), this new authority will operate as an independent agency, run by a committee consisting of the governors of the eight States and cochaired by a Federal and a State-nominated representative. The authority was authorized for 2 years at \$30 million per year, but it was only appropriated \$20 million for fiscal year 2001.

As with the ARC, the DRA is to focus on the most distressed areas within the region, and improving infrastructure is the favored approach, at least initially. The legislation requires that 75 percent of the appropriated funds (net of administrative expenses) will go to distressed counties and pockets of isolated poverty (as defined by DRA), and 50 percent of the appropriated funds must be used for basic infrastructure, including transportation. Business development and training also are to receive priority. Before the DRA can advance development in the region, however, the cochairs of the DRA must be named, and DRA must define its distressed areas.

The creation of the DRA culminates a longstanding effort on the part of the region’s representatives. It is the second new regional development authority established in as many years (the Denali Commission assisting rural Alaska began operating in 1999). The DRA includes 16 counties in Alabama’s Black Belt plus one county in Louisiana that were not in the original plan for the Delta authority. Consequently, the DRA territory is not contiguous and it overlaps slightly with the ARC in portions of Alabama and Mississippi (fig. 1).

An Emphasis on Infrastructure

Recently, Congress has provided substantial increases in infrastructure funding, which made sense at a time when the economy was growing rapidly and placing strains on existing infrastructure. This emphasis can be seen in the directions given to the new Denali and Delta authorities, both required to focus on infrastructure. In addition, the ARC was authorized to spend an additional \$641 million in 2001 on its Appalachian highway system, including \$100 million on each of its two high-priority corridors: Corridor D in West Virginia and Corridor X in Alabama.

Transportation infrastructure, in general, continues to receive substantial funding increases, consistent with the June 1998 Transportation Equity Act for the 21st Century (TEA-21), which reauthorized surface transportation programs through fiscal 2003 (*Rural Conditions and Trends*, vol. 10, no. 1). Highway construction funding will rise in fiscal 2001 by over \$2 billion (including the \$252-million increase for the Appalachian Development Highway System), and rural transit funding

will increase \$12 million in the form of nonurbanized area formula grants. In May 2000, the Aviation Investment and Reform Act for the 21st Century reauthorized the aviation programs, with a 68-percent funding increase for airport improvement grants (from \$1.9 billion in 2000 to \$3.2 billion in 2001).

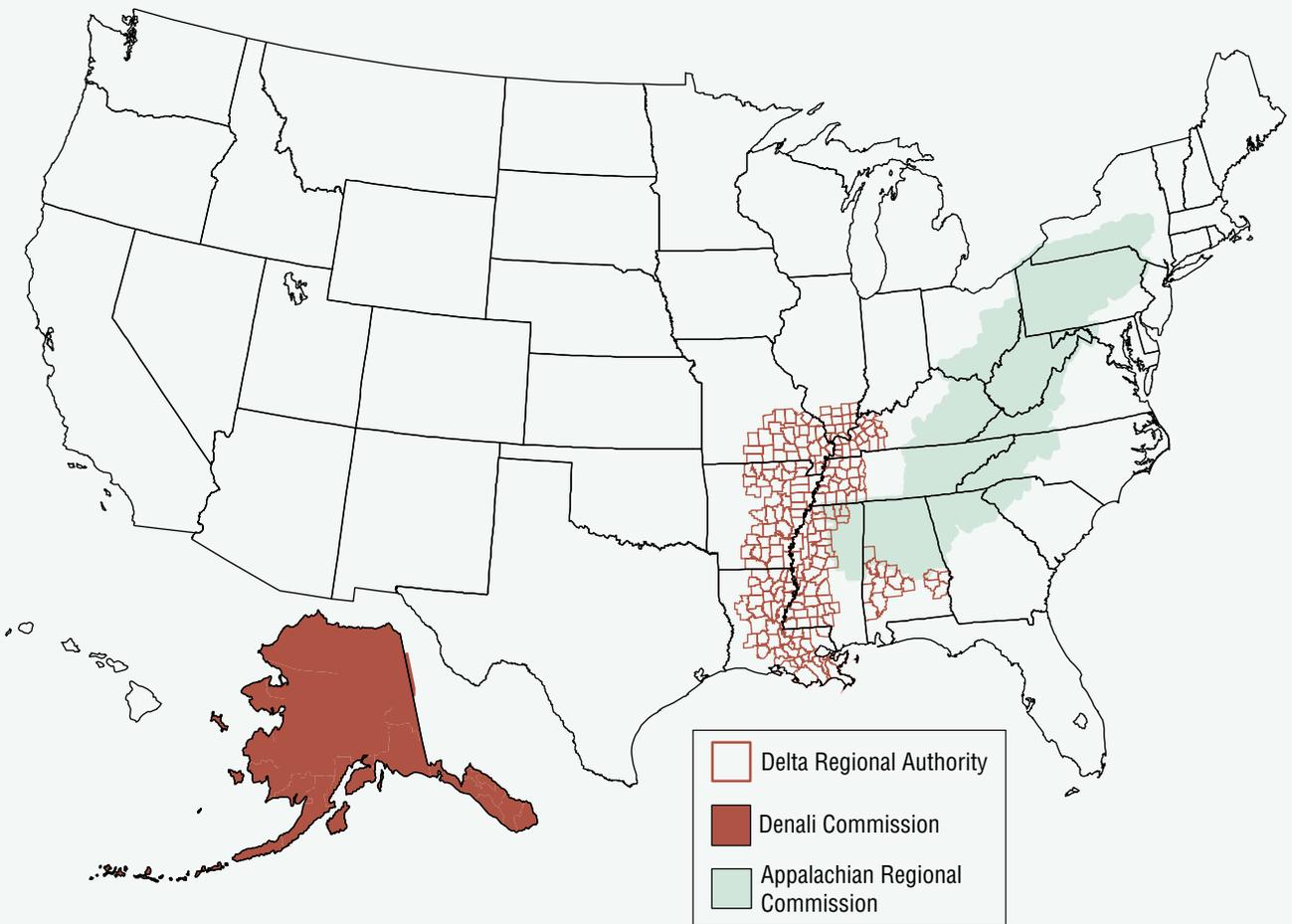
Funding for the Economic Development Administration's (EDA) public works grants program grew by \$82 million, totaling \$287

million in 2001 (table 1). This program provides funding for miscellaneous infrastructure (such as industrial parks) to help boost economies in distressed areas, with many rural areas benefiting.

Although overall funding for rural telecommunications has not changed markedly in the last year, some of the smaller programs that finance advanced telecommunications received modest increases. For example, funding for the Commerce Department's

Technology Opportunity Grant (TOPS) program (formerly the Telecommunications and Information Infrastructure Assistance program) increased \$30 million to \$45 million for 2001. The appropriation for USDA's distance learning and telemedicine program grew from \$21 million to \$27 million in 2001. In addition, USDA's Rural Utilities Service (RUS) is making funds available to provide up to \$100 million in loans to finance the construction and instal-

Figure 1
Major regional development authorities
The Delta Regional Authority joins those already in Alaska and Appalachia



Source: Economic Research Service, U.S. Department of Agriculture.

About the Federal Funding Tables

These tables contain budgetary information from the Budget of the United States and the Budget Appendix for fiscal year 2002, and from summary information obtained directly from USDA and other Federal agencies. Unless otherwise indicated, the amounts cited refer to the budget authority. Unless otherwise indicated, the amounts for credit programs are for the total loans or loan guarantees supported by this budget authority. The amount for fiscal year 2000 is the actual amount, while the amount for fiscal year 2001 is estimated. These 2001 estimates can be inaccurate at times, particularly for credit programs. The last column, indicating the types of areas most affected by the program, is based on our analysis of the geographic distribution funds in fiscal year 1998, using the Consolidated Federal Funds data from the Census Bureau. Note, however, that this distribution can change from year to year.

lation of broadband telecommunications services in fiscal 2001. While this is a small amount relative to what is needed to bring broadband services to all rural areas, RUS is nevertheless sending a signal to its loan recipients that this form of advanced telecommunications is a top priority.

A similar emphasis on infrastructure occurred for USDA's Rural Community Advancement Program (RCAP), which supports rural water

Table 1

Federal funding for selected infrastructure programs by fiscal year

Funding has increased or remained unchanged for most infrastructure programs in 2001

Program	2000	2001	Change ¹	Rural areas most affected by the program ²
	actual	estimate		
	<i>Billion dollars</i>		<i>Percent</i>	
DOT Highway Planning and Construction Program	27.70	30.32	9	Counties in the West
DOT Nonurbanized Area Formula Transit Grants Program	0.19	0.21	6	Counties in the Northeast
DOT Airport Improvement Program	1.90	3.20	68	Federal land counties
EPA Drinking Water SRF	0.82	0.82	0	Disadvantaged communities with small water systems
EPA Clean Water SRF	1.35	1.35	0	Government counties in the West
USDA Water and Waste Disposal Programs ³	1.34	1.55	16	Transfer-dependent counties in the South and West
USDA Community Facility Loan and Grant Program	0.30	0.76 ⁴	153	Totally rural counties in the West
EDA public works grants	0.21	0.29	40	Transfer-dependent counties
USDA telecommunication loans ⁵	0.50	0.50	0	Rural areas in general
USDA Distance Learning and Telemedicine Program	0.03	⁶	⁶	Rural areas in general
USDA Electric Loan Program	2.12	2.61	24	Rural areas in general

Note: DOT = U.S. Department of Transportation; EPA = U.S. Environmental Protection Agency; SRF = State Revolving Fund; USDA = U.S. Department of Agriculture; EDA = Economic Development Administration, U.S. Department of Commerce.

¹Change is computed using actual amounts in millions of dollars, rather than rounded amounts shown in table.

²County types are defined in the appendix of *Rural Conditions and Trends*, Vol. 11, No. 1, 2000.

³Includes both grants and loans, plus emergency community water assistance grants and solid waste management grants. Excludes funding from the Fund For Rural America.

⁴Includes emergency supplemental funding.

⁵Excludes Rural Telephone Bank loans.

⁶Loan levels are expected to increase, but they cannot be estimated reliably.

Source: Budget of the United States Government, Fiscal Year 2002.

Table 2

Federal funding for selected business assistance programs by fiscal year¹*Most business loan guarantee programs are expected to increase their loan activity in 2001*

Program	2000 actual	2001 estimate	Change	Rural areas most affected by the program ²
	<i>Billion dollars</i>		<i>Percent</i> ³	
SBA 7(a) business loan guarantees	9.70	9.82	1	Service and retirement counties and counties in the West
SBA Certified Development Company guarantee (section 504)	1.81	⁴	4	Service counties and counties in the West
SBA disaster loans	0.78	0.83	6	Places experiencing disasters
SBA New Markets Venture Capital (NMVC)	0	0.15	---	High-poverty and low-income areas
Treasury Department Community Development Financial Institutions (CDFI)	0.09	0.12	24	Low-income and minority areas
RBS Business and Industry loan guarantees (B&I)	0.94	2.70 ⁵	184	Government counties and counties in the West
RBS Intermediary Relending Program	0.04	0.04	0	Poverty and transfer counties and counties in the West
RBS Rural Business Enterprise grants (RBEG)	0.04 ⁵	0.05	18	Poverty and transfer counties and counties in the South
EDA Economic Adjustment Grants	0.04	0.05	43	Service and commuting counties and counties in the South

Note: SBA = Small Business Administration; RBS = Rural Business-Cooperative Service, U.S. Department of Agriculture; EDA = Economic Development Administration, U.S. Department of Commerce.

¹Budget authority used for grant programs; projected loan levels (obligations or program level) used for loan programs. In some cases, budget authority may be falling at the same time that projected loan obligations are rising. This can happen for any number of reasons, including making use of greater efficiencies, reducing subsidies, charging fees and using unobligated balances of funds from prior years.

²County types are defined in the appendix of *Rural Conditions and Trends*, Vol. 11, No. 1, 2000.

³Calculated on actual expenditures and estimated expenditures. Does not correspond to table entries due to rounding.

⁴The fiscal 2001 amounts are impossible to estimate with any degree of reliability.

⁵Includes emergency supplementary funds.

Source: Budget of the United States, Fiscal Year 2002.

and sewer systems, community facilities, and businesses and cooperatives. RCAP's funding rose from \$694 million in 2000 to \$762 million in 2001, with the increase occurring in the two infrastructure components (water and sewer up \$39 million; community facilities up \$30 million). The total value of RCAP loans and grants provided by this funding is estimated to rise from \$2.7 billion to \$5.1 billion in 2001.

Rural schools should get a boost from two new programs. First, in March 2000, USDA announced its new Rural Community Schools Rebuilding Program, a partnership that will provide rural schools with access to as much as \$1.2 billion to repair school buildings, acquire new equipment, develop course materials, and train school personnel. This joint effort between USDA's Rural Housing Service and a private-nonprofit coalition, Organizations Concerned About Rural Education, will be implemented on a pilot basis in Mississippi, North Carolina, North Dakota, and Texas. The second program, created by the Secure Rural Schools and Community Self Determination Act, guarantees \$1 billion in payments to rural timber counties over the next several years. This helps to offset declines in timber revenues for these counties.

Other Notable Federal Program Developments

Aside from the new SBA programs, several additional changes in Federal business assistance programs are worth mentioning. EDA's defense conversion program was cut by \$46 million to \$31 million in 2001, but EDA's economic adjust-

ment grants, which are targeted to distressed areas, rose \$15 million to about \$50 million. USDA's business assistance programs, operated by the Rural Business-Cooperative Service (RBS), are expected to increase program activity in 2001. Rural Business Enterprise grants will increase from \$39 million to \$46 million, and the total for Business and Industry loan guarantees is expected to more than double, rising to \$2.7 billion with the help of emergency supplementary funds (table 2).

In addition, SBA's Rural Initiative contains a pilot program called Rural Express, a small business loan program tailored to rural business needs, initially aimed at 11 SBA districts across the country (Alaska; Fresno, CA; Kentucky; Illinois; Michigan; Mississippi; St. Louis, MO; North Carolina; North Dakota; San Antonio, TX; and Richmond, VA). If successful, this pilot program might be continued and expanded beyond January 2002.

With regard to housing programs, most major programs were funded at no less than fiscal 2000 levels, and many had funding increases (table 3). Funding for HUD's Housing for the Elderly program increased from \$710 million to \$779 million. Funding for HUD's YouthBuild program, which supplies resources, training, and stipends to disadvantaged youths to build and rehabilitate low-income housing, increased from \$43 million to \$60 million in 2001. Funding for USDA's Rural Rental Assistance increased \$40 million, totaling \$680 million in 2001—much of this increase is required to offset higher costs in low-income housing projects. The Federal Housing Administration (FHA)

Table 3

Federal funding for selected housing programs by fiscal year

The largest percentage increase is expected for USDA's single-family guaranteed loan program

Program	2000 actual	2001 estimate	Change	Rural areas most affected by the program ¹
	<i>Billion dollars</i>		<i>Percent</i> ²	
USDA/RHS:				
Single family (sec. 502) Direct loans	1.14 ³	1.08 ³	-2	South, West, and poverty counties ⁴
Guarantees	2.15	3.13	46	Outside the South ⁴
Multifamily (sec. 515)	0.11	0.15 ³	31	Northeast, South, totally rural, adjacent, and manufacturing counties
Rental assistance	0.64	0.68	6	West, South, totally rural, farming, and poverty counties
VA:				
Loan guarantees	20.16	⁵	⁵	West, urbanized and retirement counties
HUD:				
FHA single-family mortgage insurance	86.27	⁵	⁵	West, retirement, and commuting counties
Section 8 public housing	20.34	21.07	4	Northeast, urbanized, government, and services counties
Home Investment (HOME)	1.64	1.80	10	Northeast, West, and government counties

Note: HUD = Housing and Urban Development; USDA = U.S. Department of Agriculture; RHS = Rural Housing Service; VA = U.S. Department of Veterans Affairs; FHA = Federal Housing Administration.

¹County types are defined in the appendix of *Rural Conditions and Trends*, Vol. 11, No. 1, 2000.

²Calculated on the actual and estimated expenditures. Does not correspond to the table entries due to rounding.

³Includes emergency supplemental funding

⁴Information on the 502 program was obtained directly from USDA, RHS.

⁵The fiscal 2001 amounts are impossible to estimate with any degree of reliability.

Source: Budget of the United States, Fiscal Year 2002.

Table 4

Federal funding for selected general assistance programs by fiscal year¹*There is little change in funding for main general assistance programs*

Program	2000 actual	2001 estimate	Change	Rural areas most affected by the program ²
	<i>Billion dollars</i>		<i>Percent</i>	
HUD State/small cities community development block grants	1.27	1.27	0	Small towns and rural areas in farm and poverty States
HUD section 108 loan guarantees	.41	³	³	Same as above
EDA adjustment assistance, includes economic and defense adjustment, planning, and technical assistance	.15	.11	-21 ⁴	Low-income areas, varies from year to year ⁵
FEMA disaster relief ⁶	2.38	³	³	Earthquake-, storm-, flood-prone areas
USDA extension activities	.42	.43	2	Small towns and rural areas
BIA Native American assistance programs	1.73	1.88	9	Indian reservations

Note: HUD = Housing and Urban Development; EDA = Economic Development Administration; FEMA = Federal Emergency Management Agency; USDA = U.S. Department of Agriculture; BIA = Bureau of Indian Affairs.

¹Unless otherwise indicated, new budget authority is used for funding levels.

²See appendix for definitions of rural areas and States.

³The fiscal year 2001 amounts are impossible to estimate with any accuracy.

⁴Funding declined by \$31 million in 2001; all of the decline was for defense adjustment.

⁵In fiscal year 1998, these programs provided the most assistance, per capita, to the most highly rural counties and those not adjacent to metro areas. Nonmetro areas got higher per capita payments in the South than in other regions, though per capita planning funds were highest in the non-metro Midwest.

⁶FEMA funding amounts are for new obligations.

Source: Budget of the United States, Fiscal Year 2002.

lowered the cost to homebuyers by cutting the charge for initiating FHA insurance and suspending insurance payments after mortgages are substantially (78 percent) repaid. Meanwhile, HUD established higher targets for Fannie Mae and Freddie Mac, government-sponsored enterprises that supply money through a secondary market for mortgages. The new standards are aimed at expanding lending to underserved

customers, such as Blacks and other minorities.

USDA's Fund for Rural America is authorized to spend \$30 million in fiscal 2001, about half that in 2000. Two-thirds will supplement existing rural development assistance programs, as follows: Rural Business Enterprise/Rural Business Opportunity Grants—\$6 million; Intermediary Relending Program—\$3 million; Rural

Economic Development Loan and Grants—\$3 million; Outreach for Socially Disadvantaged Farmers—3 million; Cooperative Development Grants—\$2 million; Farm Labor Loans—\$1.5 million; Resource, Conservation, and Development Districts—\$1 million; Community Facilities Grants—\$0.5 million. The remaining \$10 million goes to the Cooperative State Research, Education, and Extension Service, which will seek proposals in two areas: (1) rural community innovation and (2) harnessing demographic change to increase rural opportunity.

Congress also made important changes in natural resource programs, increasing 2001 funding to \$1.6 billion for land conservation, preservation, and maintenance. These programs focus on sustaining the natural environment, which adds to the quality of life and helps attract tourism and other amenity-based development in many rural areas. Funding also rose for a number of other natural resource-based programs, such as Payments in Lieu of Taxes and USDA's Resource Conservation and Development program.

Other notable program changes include the authorization of a new \$25-million disaster prevention/mitigation program of the Federal Emergency Management Agency (FEMA). FEMA also got \$100 million for new firefighting programs (table 4). Funding increased for several employment and training programs, including Job Corps, One-Stop Career Centers, and Youth Opportunity Grants. Funding also increased for several large block grant programs operated by the Department of Health and Human Services, including the Child Care Development, Head Start, and

Empowerment Zones and Renewal Communities

Eligibility, Selection Criteria, and Administration

Empowerment zones. The nine new zones must meet the same requirements as Round II zones, which include population and geographic size restrictions, 25 percent poverty, and other indicators of distress. Of the two new rural zones, one may qualify based on population outmigration (instead of poverty). In selecting among the eligible places, consideration is made of four principles advanced in the community's strategic plan: economic opportunity, sustainable community development, community-based partnerships, and strategic vision for change. USDA will designate and administer the rural zones, HUD the urban zones. The new zones are to be designated by January 1, 2002. Round I and II empowerment zones and enterprise communities (EZ/EC's) that apply for the Renewal Community program will be given preference when selecting the first 20 renewal communities. If selected, they lose their EZ/EC designations and no longer qualify for EZ/EC benefits.

Renewal communities. Each must meet population size requirements and have 20 percent poverty, at least 1.5 times the national rate of unemployment, and pervasive general distress, including high crime rates. Urban places must have at least 70 percent of households with incomes below 80 percent of the local median income. One rural place may qualify based on outmigration instead of poverty and unemployment criteria. In addition, State and local governments must nominate these communities and submit action plans promising to take at least four of the following government actions in the nominated area: (1) reduce tax rates and fees; (2) increase efficiency of local services; (3) reduce crime; (4) remove or streamline government requirements; (5) increase involvement of private entities and community groups; and (6) give (or sell at discount) surplus government realty to community groups or private companies. In addition, State and local governments must promise to repeal or not enforce four of the following: (1) licensing requirements for occupations that do not ordinarily require a professional degree; (2) zoning restrictions on home-based businesses that do not create a public nuisance; (3) permit requirements for street vendors who do not create a public nuisance; (4) zoning or other restrictions that impede the formation of schools or child care centers; and (5) franchise provisions or other restrictions on competition for businesses providing public services unless such regulations are necessary for and well tailored to the protection of health and safety. Among eligible communities, selections are to be based on rankings by distress factors identified above. At least 12 must be rural, as defined by HUD. Eligible EZ/EC's get a preference in the first 20 selections. Renewal communities are to be administered by HUD, which must designate the 40 zones by December 31, 2001.

Tax Incentives

Empowerment zones receive: (1) a 20-percent employer wage credit on the first \$15,000 in wages of each resident worker; (2) an additional \$35,000 of section 179 expensing for qualified zone property investments; (3) tax-exempt financing for certain qualifying zone facilities; (4) enhanced capital gains tax benefits from sale of qualified empowerment zone investments and stocks; and (5) extension of Work Opportunity Tax Credits. (Empowerment zones also receive grants. FY 2001 appropriations provide \$15 million in grants for the Round II rural empowerment zones and enterprise communities, plus additional amounts in earmarked funds from various development programs.)

Renewal communities receive: (1) a 15-percent employer wage credit on the first \$10,000 in wages of each resident worker; (2) an additional \$35,000 of section 179 expensing for qualified community investments; (3) zero capital gains rate on sale of renewal community businesses/assets held over 5 years; (4) up to 20 percent credit for rehabilitation or revitalization of nonresidential buildings (total allowed is \$12 million per year per community); and (5) extension of Work Opportunity Tax Credits. (Renewal communities are not entitled to any grants by this legislation.)

Community Services. The Medicare, Medicaid, and SCHIP (State Children's Health Insurance Program) Benefits Improvement and Protection Act of 2000 made

several changes that benefit rural hospitals, such as provisions providing relief from major reductions in payments stemming from the 1997 Balanced Budget Act, and

allowing payment for telemedicine services in all nonmetro counties. Farmers benefited from additional emergency assistance and the enactment of a new crop insurance

bill that increases the Federal share of insurance premiums.

Tax legislation increased the low-income housing tax credit from \$1.25 per capita to \$1.50 per capita in 2001 and another 25 cents in 2002, indexing it to inflation in the future. This should encourage the private sector to construct more affordable housing. The legislation also increased and indexed for inflation the State volume cap for private activity bonds that State and local governments use to obtain subsidized interest rates in financing economic development. In addition, the brownfields cleanup tax credit was broadened to make more sites eligible for tax advantages.

Regulatory Changes of Note

Some important regulatory changes have relevance for rural development. Many of these regulatory actions address mergers allowed by previous deregulation. For example, in transportation, Federal agencies acted in 2000 to oppose or limit potentially anti-competitive aspects of proposed mergers of railroads and airlines. In the proposal stage (as of March 2001), highway regulations would give local rural officials more say in planning and funding for highway and transit projects, and stricter safety regulations would apply to small commercial airports.

Various actions were taken to protect natural resources on Federal lands. These include the creation of new national monuments in the West, a Hawaiian Pacific Ocean

reserve, and further actions to protect the everglades in Florida. USDA followed through with its proposed new forest plan that prevents logging and roadbuilding in roadless parts of national forests. While these actions help to preserve natural amenities that enhance tourism and development in many rural areas, they will also limit or prohibit some rural economic activity.

The Environmental Protection Agency continued its efforts to enforce air pollution requirements in the face of various legal challenges. And in January 2001, EPA proposed new regulations requiring municipalities (rural and urban) to improve their sewage systems to prevent avoidable sewage spillovers that damage the environment and pose a health hazard. EPA estimates the cost of these improvements at up to \$100 billion.

Metropolitan/Micropolitan Areas

The Office of Management and Budget (OMB) is revising the definitions it uses to describe metropolitan areas. Under the new classification system, called Core Based Statistical Areas (CBSAs), several changes were made in how Metropolitan Statistical Areas are defined, and these changes could mean that some previously non-metropolitan places will be metropolitan, and vice versa. This could have important implications for some rural areas, particularly where eligibility for Federal programs depends on metropolitan status.

Another change involves the creation of a Micropolitan Statistical Area designation within the new CBSA nomenclature. Previously, all nonmetro communities, regardless of their population size, were officially grouped together as a residual with none accorded any unique designation. Now, any nonmetro county with at least 1 urban cluster that has a population of at least 10,000, but less than 50,000, is a Micropolitan Statistical Area, along with any adjoining counties that are closely tied to it by worker commuting. This means that many nonmetro counties will now be assigned unique Micropolitan Statistical Area names (corresponding to the largest city or cities in the area).

It is too early to say what implications this will have for rural development. OMB is not expected to announce the set of metropolitan and micropolitan areas until after the 2000 Census data are analyzed in 2003. However, this new micropolitan designation could help draw the attention of developers and businesses to these communities. In addition, Federal statistics and data will be reported for micropolitan areas, enhancing the capability to undertake regional planning and development in these places. Some Federal programs may also make use of this new definition to target certain forms of assistance to these places. This could also affect rural areas not within either metropolitan or micropolitan categories, as some Federal programs and statistics may begin to focus on the CBSA's. *RA*

Nonmetro Outmigration Exceeds Inmigration for the First Time in a Decade

John B. Cromartie

More people were moving from nonmetro to metro areas than in the opposite direction during 1999-2000, a turnaround from the previous 9 years. During the year ending March 2000, 1.9 million people moved out of nonmetro areas to metro locations, according to the latest data from the Current Population Survey. Outmigration increased by almost 150,000 from the previous year, while the number of immigrants remained essentially unchanged, causing a shift from a net population gain of 73,000 to a net loss of 71,000. A strong shift in migration away from nonmetro areas has been underway since mid-decade, when net immigration had been as high as 350,000 (fig. 1).

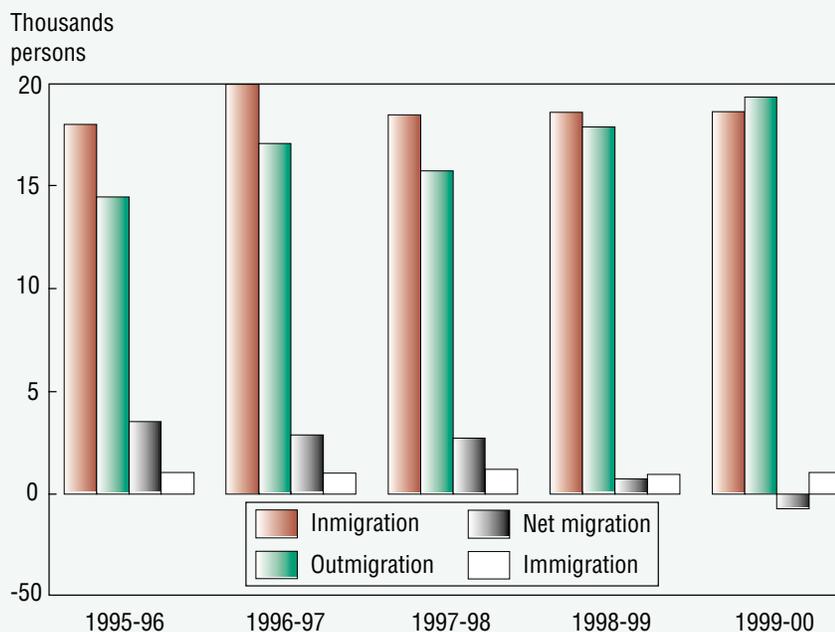
In addition to those moving in from metro areas, about 100,000 immigrants have moved directly to nonmetro areas from foreign countries each year since 1995. New immigrants are a relatively small group in any given year, representing just 0.2 percent of the nonmetro population, but nationally they added enough population to offset the domestic migration losses

during 1999-2000. However, immigration is more regionally concentrated, adding population to nonmetro areas in a few States such as Florida, Texas, and Arizona, and in specific counties in other States. In addition, the Current Population Survey does not provide an estimate of annual emigration to countries outside the United States, which if available would indicate a somewhat lower net gain.

Compared with the net shifts in population, the total flow of migrants into and out of nonmetro areas is quite substantial, averaging over 3 million people per year. In

addition, over 1 million people move between nonmetro counties, typically a local move but often associated with important career or family changes. Over several years, this level of migration substantially changes the geographic location and characteristics of the nonmetro population, largely determining the availability of economic opportunity, public services, and amenities in any locale. With outmigration rising, more nonmetro counties across the country are facing difficulties associated with slow growth or population loss, such as an increasingly older and less-skilled

Figure 1
Nonmetro in-, out-, and net migration, 1995-2000
Without immigration from abroad, nonmetro areas would have lost population due to migration during 1999-2000



Source: Calculated by ERS using the March Current Population Survey, 1996-2000.

John B. Cromartie (202-694-5421, jbc@ers.usda.gov) is a geographer in the Food Assistance and Rural Economy Branch, Food and Rural Economics Division, ERS.

work force, downtown business closures, and higher per capita costs for services such as health care and transportation.

Nonmetro Growth Is Higher in the Midwest

New metro and nonmetro classifications based on 1990 data were fully incorporated into the Current Population Survey in 1996, so 5 years of consistent data showing the flows into and out of nonmetro areas are now available. Comparing the first 2 years (1995-96 and 1996-97, averaged together) with the last 2 years (1998-99 and 1999-2000) shows strong regional shifts in nonmetro migration favoring the Midwest (fig. 2). While the South and West were attracting migrants in record numbers during most of the 1990s, the Midwest saw sluggish growth, but in the last 2 years of the decade, the region's nonmetro population grew by almost

1.5 percent per year. Much of the increase may be attributed to outward expansion of the region's highly urbanized population into

adjacent nonmetro counties. Former rural farming and manufacturing communities are changing over to bedroom communities for urban commuters, to such an extent that many currently nonmetro counties will be reclassified as metro when new areas are defined based on the 2000 census. Other nonmetro growth in the Midwest is associated with migrants seeking new homes in high-amenity areas, such as in the northern Great Lakes region.

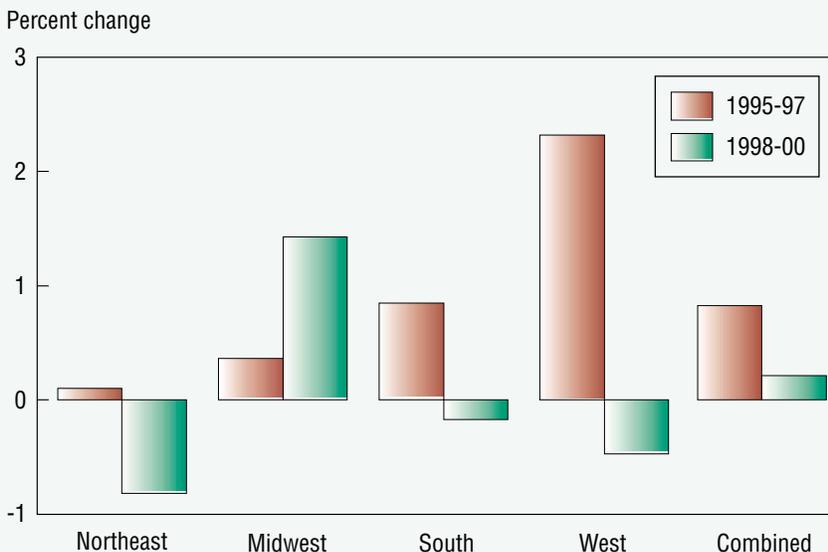
The Northeast, also highly urbanized, has not been able to attract migrants or retain current residents within rural sections. Some growth likely still continues in scenic areas and around the edge of large cities, but not enough to offset losses due to declines in the region's rural manufacturing base and related service industries. As metro areas continue to prosper in the Northeast, continued increases in outmigration from nonmetro areas are likely.

About the Data

These migration statistics are from the Current Population Survey (CPS), conducted monthly by the U.S. Census Bureau for the U.S. Department of Labor. CPS derives estimates based on a national sample of about 60,000 households that are representative of the U.S. civilian, noninstitutional population. The sample is large enough to provide information on the demographic and economic characteristics of the nonmetro population at the national and regional level, but not generally at State or local levels. The March CPS contains a supplemental question asking respondents where they were living a year prior to the survey. Metro and nonmetro migration statistics are derived by comparing past to current residence. This article uses 5 years of March CPS data, 1996-2000, the only years with consistent, up-to-date metro and nonmetro residence classifications available. Prior to 1996, the CPS used a metro-nonmetro definition based on 1980 rather than 1990 census data.

Net migration is the small difference between two much larger migration streams--inmigration and outmigration--that are known to fluctuate year to year. In addition, estimates from the CPS can fluctuate even when actual net migration is stable. Therefore, readers should interpret nonmetro migration statistics with caution.

Figure 2
Average annual net migration rates in nonmetro areas, by region, 1995-97 and 1998-00
Nonmetro net immigration shifted to net outmigration in all regions except the Midwest



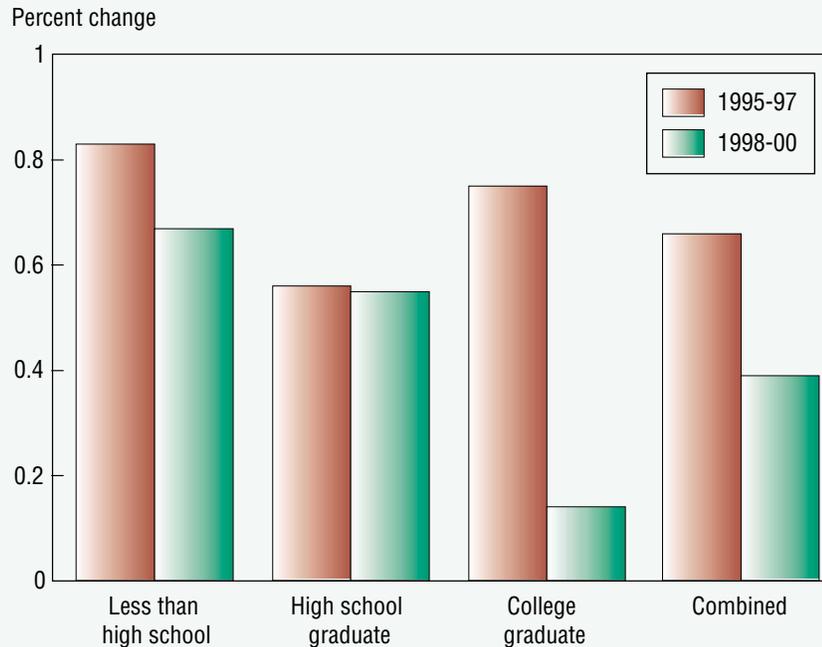
Source: Calculated by ERS using the March 1996, 1997, 1999, and 2000 Current Population Surveys.

The downturn in metro economies in the early 1990s and the preference for high-amenity rural settings spurred growth to record levels in the nonmetro West. As late as 1995-97, the West led other regions in net migration gains by a large margin (fig. 2). Migration has dropped dramatically since then, as metro areas throughout the West experienced a strong economic recovery. However, the emergence of net outmigration from both the nonmetro West and South during 1998-2000 is surprising given the continuing allure of natural amenities throughout the Sun Belt, especially for baby boomers entering their early retirement years. As in the Midwest, the South's metro areas have been growing quite rapidly along their outer edges and expanding into nonmetro territory. Either this trend slowed down during 1998-2000, or outmigration from poorer and more isolated parts of the South increased, or both.

High Nonmetro Migration Among College Graduates Ends

Almost all of the decline in nonmetro net migration between the mid- and late 1990s occurred among college graduates, who moved out in numbers almost equal to those moving in for the first time since the "brain drain" of the 1980s (fig. 3). This is not surprising given the regional shifts outlined above, because the well educated contributed disproportionately to the amenity-based growth in the South and West during the early 1990s. Growth rates are now highest among people without a high school degree, reflecting a narrower range of options available to them in technology-driven urban job markets and, perhaps, the higher availability

Figure 3
Average annual net migration rates in nonmetro areas, ages 25 and older by education, 1995-97 and 1998-00
Nonmetro areas gained fewer college graduates through net migration



Source: Calculated by ERS using the March 1996, 1997, 1999, and 2000 Current Population Surveys.

of low-skill work in nonmetro areas.

Outmigration is concentrated among young adults, who are more educated and who quite often leave rural areas after high school for colleges and jobs in the big city. This traditional pattern holds even for many areas rich in natural amenities with a tourist or recreation-based economy. Such places attract older families and retirees with high levels of discretionary income, but often do not provide enough good jobs to support those with marketable skills just entering the labor market.

Net migration among the college-educated dropped to near zero during 1998-2000, but not below as it did during the 1980s, when net outmigration among this group reached 2 percent a year. Although migration trends are near-

ly impossible to predict, it is unlikely that such high losses will occur in the near future. Technological advances such as the Internet and other rural restructuring trends, especially in manufacturing, have increased rural opportunities for the well educated and diminished the chances that the rural brain drain will resume. Much of the rural rebound of the early 1990s was fueled by migrants seeking a slower-paced lifestyle and other advantages offered by rural settings, often giving up higher-paying jobs in the city to live in high-amenity areas. Despite the drop off in the past 2 years among college graduates, this attraction to rural areas is likely to continue among the very large baby boom cohort, whose migration decisions will help shape the course of rural economies in the coming years. *RA*

Nonmetro Earnings Continue Upward Trend

Robert M. Gibbs
Timothy S. Parker

Nonmetro Earnings Growth Is Broad-Based

The average weekly earnings of nonmetro wage and salary workers rose steadily in the late 1990s, according to recent data from the Current Population Survey. Between 1996 and 2000, nonmetro earnings climbed 9.8 percent, from \$461 to \$506, after adjusting for inflation. This increase represents most of the gains made by nonmetro workers since 1990—for the entire decade, average weekly earnings were up 11.7 percent. Metro earnings saw a similar increase (10.1 percent).

Earnings increased for workers regardless of education level after 1996, although gains were higher for the best educated. Meanwhile, the share of nonmetro workers earning low wages fell to 24.6 percent, a level last achieved in 1979. Women and minorities enjoyed earnings gains comparable to, or higher than, the nonmetro average. But their earnings remain low, and their low-wage employment shares very high, compared with White men.

The pace of earnings growth for nonmetro workers has quickened since 1996, after registering only a slight increase earlier in the decade. Labor productivity growth in the latter half of the 1990s, along with a tight labor market marked by very low unemployment, has motivated employers to raise wages, and has allowed them to do so without prompting inflation. The steady increase also means that nonmetro earnings have recovered most of the ground lost in the 1980s, and are nearly as high in 2000 as in 1979 (\$518 in 2000 dollars).

Earnings rose among workers at all education levels in the late 1990s, in contrast to earnings stagnation or loss for each education level earlier in the decade (table 1). The returns to education also continued to rise, however, further widening the gap between the average earnings of workers without a high school diploma and those with college degrees. This trend has held throughout the decade. In 1990, nonmetro college graduates earned 2.32 times as much as those without a high school diploma, compared with 2.5 times as much in 2000.

Meanwhile, nonmetro and metro earnings rose at about the same pace over 1996-2000 (9.8 percent compared with 10.1 percent). This comparable earnings growth would seem at odds with increasing earnings inequality, given the much higher share of

metro workers with college degrees. The higher metro share of these workers, however, is countered by higher earnings growth among nonmetro workers without college.

Earnings gains since 1996 have been slightly faster for women and Blacks than for men and Whites (table 2). Nonmetro women's earnings rose 10.7 percent, compared with 9.9 percent for nonmetro men. Black workers' earnings rose 11.2 percent, versus 9.7 percent for Whites. These gains were similar to those of comparable groups in metro labor markets. Given the relatively rapid advances over such a brief period, the source of earnings growth among these groups is most likely due to higher real returns to education and skill rather than to improvements in occupational status or educational attainment.

Low-Wage Employment Returns to 20-Year Low

A drop in the share of workers age 25 and older earning low wages--wages that, on a full-time, full-year basis, are less than the poverty threshold for a family of four--reinforces the picture of steady earnings growth. The nonmetro low-wage share fell from 32 percent in 1996 to 24.6 percent in 2000 (fig. 1). Although the nonmetro rate remains higher than the metro rate of 17.2 percent, it has returned to its 20-year low after rising in the early and mid-1980s.

The recent decline is broad-based, affecting workers in all demographic groups. For women, the share of employment in low-

Robert M. Gibbs (202-694-5423, rgibbs@ers.usda.gov) and Timothy S. Parker (202-694-5435, tparker@ers.usda.gov) are economists in the Food Assistance and Rural Economy Branch, Food and Rural Economics Division, ERS.

Table 1

Average weekly earnings by education level and metro status

Earnings inequality between the most- and least-educated workers rose during the 1990s in both metro and nonmetro labor markets.

	All	Less than high school	High school	Some college	College graduate	Ratio, College/ LTHS ¹
<i>Dollars (2000)</i>						
Nonmetro:						
1990	453	305	425	469	709	2.32
1996	461	290	433	465	698	2.41
2000	506	309	469	500	771	2.50
Metro:						
1990	587	349	487	572	886	2.54
1996	582	305	482	535	871	2.86
2000	641	320	512	576	977	3.05
U.S.:						
1990	560	338	472	554	862	2.55
1996	560	301	471	523	851	2.83
2000	617	318	502	563	954	3.00
<i>Percent</i>						
Change, 1996-2000:						
Nonmetro	9.8	6.6	8.3	7.5	10.5	
Metro	10.1	4.9	6.2	7.7	12.2	
U.S.	10.2	5.6	6.6	7.6	12.1	

¹Less than high school

Source: 1990, 1996, and 2000 Current Population Surveys.

Table 2

Average weekly earnings by sex and race/Hispanic origin

The earnings of nonmetro women and Black workers have grown slightly faster than average since 1996

	Nonmetro			Metro		
	1996	2000	Change	1996	2000	Change
	<i>Dollars (2000)</i>		<i>Percent</i>	<i>Dollars (2000)</i>		<i>Percent</i>
All	461	506	9.8	582	641	10.1
Men	547	601	9.9	682	751	10.1
Women	366	405	10.7	473	520	9.9
Black ¹	356	396	11.2	466	523	12.2
Hispanic	365	401	9.9	428	466	8.9
White	476	522	9.7	624	690	10.6

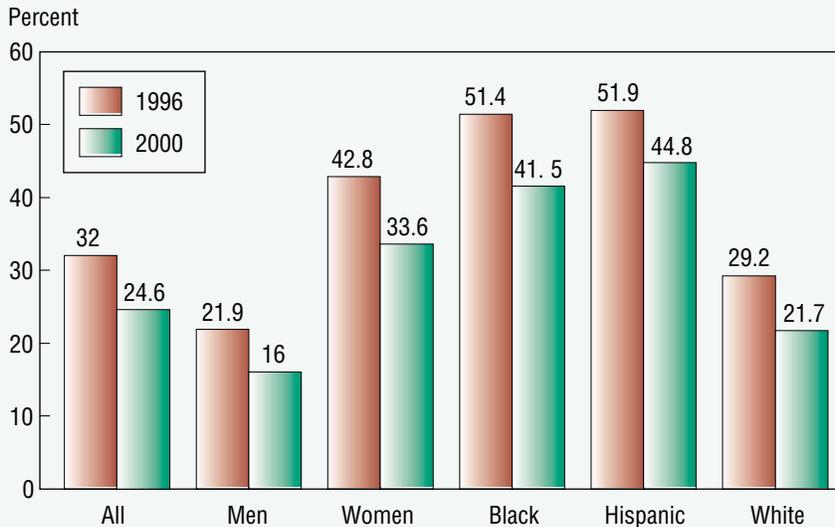
¹"Black" and "White" categories exclude Hispanics.

Source: 1996 and 2000 Current Population Surveys.

Figure 1

Share of nonmetro workers in low-wage employment by sex and race/ethnicity

Low-wage employment shares have fallen since 1996, but remain quite high for nonmetro women and minorities



Note: "Black" and "White" categories exclude Hispanics.
Source: 1996 and 2000 Current Population Surveys.

wage jobs dropped from 42.8 to 33.6 percent, while the share for men fell from 21.9 to 16 percent. Rates for rural Black workers declined 10 percentage points between 1996 and 2000, to 41.5

percent, bringing them below their low-wage employment rate in 1979. This decline in the share of jobs with low pay, coupled with steady job growth overall, should ease concerns that welfare reform

will greatly expand the low-wage labor market. Because the use of CPS data precludes analysis of small-area labor markets, however, one should interpret the aggregate results with caution.

Despite much good news, discrepancies in average earnings and low-wage employment remain substantial among workers with similar education. Nonmetro women are at least twice as likely to earn low wages as are nonmetro men with comparable schooling, and earn as much as 39 percent less. The earnings gap among Blacks, Hispanics, and Whites is also quite large. The racial/ethnic gap in earnings is generally wider for men than for women, reflecting greater occupational segregation and greater variation in earnings overall. Thus, while education is an important predictor of earnings, other factors such as occupational choice, work experience, and discrimination in hiring, pay, and promotion decisions contribute to the large earnings differences observed in rural labor markets. **RA**

Farm Households Are Often Dual-Career

Robert A. Hoppe

As with nonfarm households, many farm households are pursuing more than one career. Decisions about how to allocate labor, management skills, and other resources between farm and non-farm employment affect the level and sources of income for farm households. Considering both farm and off-farm income, farm operator household income averaged \$64,300 in 1999, about 17 percent higher than the \$54,800 average for all U.S. households. For all family farms, only 10 percent of farm operator household income came from farming in 1999, but that share varied by farm and operator characteristics.

To examine variations in the level and sources of farm household income, as well as variations in off-farm jobholding, this article uses a farm typology—or classification system—developed by the Economic Research Service. ERS developed the farm typology to account for differences in farm and household characteristics, sorting farms into more homogeneous categories based largely on sales of the farm and occupation of the

operator (see “Farm Typology Group Definitions”). In the case of limited-resource farms, household income and farm assets—as well as sales—are also low.

Most of the information presented here is from the 1999 Agricultural Resource Management Study (ARMS), conducted by ERS and the National Agricultural Statistics Service (NASS), both USDA agencies. ARMS is an annual survey that collects information from farmers across the United States. It is the only source of farm business and farm household data complete enough to produce the typology. Operator household income from ARMS is defined to be consistent with the Current Population Survey (CPS) definition of money income for all U.S. households (see “Defining Household Income”).

Levels and Sources of Income Vary

Households in three of the typology groups—very large family farms, large family farms, and residential/lifestyle farms—received an average household income above the average for all U.S. households (table 1). For very large farms, average household income was nearly four times the U.S. average. Households with retirement, low-sales, and limited-resource farms had income less than the U.S. average, with limited-resource farms receiving just one-fifth of the U.S. household average.

Farm income was a substantial source of total income only for households operating high-sales small farms (50 percent of their

total household income), large family farms (60 percent), and very large family farms (82 percent). At least three-fifths of the households in each of these groups received half or more of their income from farming. Nevertheless, these typology groups received substantial off-farm income, an average of \$26,600 for households operating high-sales small farms and roughly \$35,000 for households with large and very large family farms.

For the remaining groups (limited-resource, retirement, residential/lifestyle, and low-sales), virtually all income came from off-farm, and most households in these groups lost money farming. More than 40 percent of the farms in each of these groups specialized in cattle (table 2). Beef cattle, particularly cow-calf enterprises, can have relatively low and flexible labor requirements, consistent with an off-farm job or retirement.

Sources of off-farm income also varied among the typology groups (table 1). Only 27 percent of the off-farm income of households with retirement farms came from earned sources (off-farm self-employment or a wage or salary job). As one would expect, most of the off-farm income of these households came from unearned sources, such as Social Security and investments. A relatively large share of off-farm income also came from unearned sources for limited-resource and low-sales farms, reflecting the retired status of 41 percent of limited-resource farmers and the elderly status of 39 percent

Robert A. Hoppe (202-694-5572, rhoppe@ers.usda.gov) is an agricultural economist in the Agricultural Structure Branch, Resource Economics Division, Economic Research Service.

Farm Typology Group Definitions

Small Family Farms (sales less than \$250,000)

Limited-resource farms. Small farms with sales less than \$100,000, farm assets less than \$150,000, and total operator household income less than \$20,000. Operators may report any major occupation, except hired manager.

Retirement farms. Small farms whose operators report they are retired.*

Residential/lifestyle farms. Small farms whose operators report a major occupation other than farming.*

Farming-occupation farms. Small farms whose operators report farming as their major occupation.*

Low-sales farms. Sales less than \$100,000.

High-sales farms. Sales between \$100,000 and \$249,999.

Other Farms

Large family farms. Sales between \$250,000 and \$499,999.

Very large family farms. Sales of \$500,000 or more.

Nonfamily farms. Farms organized as nonfamily corporations or cooperatives, as well as farms operated by hired managers. Household income and wealth are not estimated for nonfamily farms.

*Excludes limited-resource farms whose operators report this occupation.

of low-sales farmers (table 3). For the other groups, most off-farm income came from earnings, with the highest percentage (91 percent) in the residential/lifestyle group.

Other Farm Business Contributions to Household Well-Being

The income concept used above does not completely measure the financial well-being of a household. It excludes nonmoney income contributed by the farm: the imputed rental value of the farm dwelling and the value of farm products consumed on the farm (food and firewood). Average non-money income for 1999 was fairly

low for each typology group, ranging from \$2,300 to \$5,800 (table 1). However, for low-income farm households, such as those operating limited-resource farms, any income—cash or nonmoney—can be critical. Note that farm households are not the only recipients of nonmoney income. For example, the Bureau of the Census estimated that the imputed annuity value of the equity of owner-occupied housing in 1999 averaged \$3,000 per home-owning U.S. household.

Depreciation is deducted from farm business income as an expense, but it may not actually be used during the current year for

reinvestment. Thus, at least part of depreciation may be available to the household, after allowing for sharing of farm income with other households involved with the farm. As one would expect, depreciation was largest for high-sales small farms, large family farms, and very large family farms.

Finally, the earnings from farming do not reflect the substantial net worth of many farm operator households, based largely on farm assets, regardless of typology group (fig. 1). Although real estate accounts for most farm assets (fig. 2), it makes up a smaller share of farm assets for groups with sales of

Table 1

Operator household income, by farm typology group, 1999*Households operating high-sales small farms, large family farms, and very large family farms rely the most on farming*

Item	Small family farms							
	Limited-resource	Retirement	Residential/ lifestyle	Farming-occupation		Large family farms	Very large family farms	All family farms
				Low-sales	High-sales			
	<i>Number</i>							
Total households	126,920	297,566	931,561	480,441	175,370	77,314	58,403	2,147,576
	<i>Dollars per household</i>							
Total household income	9,534	40,643	83,788	39,764	53,322	85,685	201,206	64,347
Farm earnings	-3,580	*-1,348	-4,007	d	26,700	51,087	165,634	6,359
Off-farm income	13,114	41,991	87,796	39,892	26,621	34,598	35,572	57,988
Earned ¹	5,857	11,254	79,943	22,385	19,193	24,020	23,360	44,658
Unearned ¹	7,257	30,737	7,852	17,507	7,428	10,578	12,211	13,330
	<i>Percent</i>							
Operator household income compared with U.S. average ²	17.4	74.1	152.8	72.5	97.2	156.2	366.9	117.3
Share from off-farm sources ³	137.5	103.3	104.8	100.3	49.9	40.4	17.7	90.1
Off-farm income from earned sources	44.7	26.8	91.1	56.1	72.1	69.4	65.7	77.0
Households with:								
Positive household income and:								
Loss from farming	54.0	62.7	69.3	43.0	10.6	6.3	3.9	52.7
0-24 % from farming	24.7	24.0	25.5	20.8	7.7	6.1	4.7	21.5
25-49 % from farming	d	7.1	3.1	11.7	12.6	11.2	8.5	7.0
50 % or more from farming	*8.4	3.3	0.9	15.3	58.3	63.4	70.3	13.7
Negative household income	7.2	d	*1.2	9.1	10.8	12.9	12.6	5.1
	<i>Dollars per household</i>							
Nonmoney income	2,337	5,767	5,611	5,142	4,952	5,395	5,158	5,261
	<i>Dollars per farm</i>							
Depreciation	1,785	1,470	2,212	5,635	17,891	30,546	71,228	7,027

d = Data suppressed due to insufficient observations or standard error greater than 75 percent of the estimate.

* = Standard error is between 25 and 50 percent of the estimate.

¹Earned income comes from off-farm self-employment or wage or salary jobs. Unearned income includes interest and dividends, benefits from Social Security and other public programs, alimony, annuities, net income of estates or trusts, private pensions, regular contributions of persons not living in the household, net rental income from nonfarm properties, and royalties for mineral leases.²Average farm household income divided by U.S. average household income (\$54,842).³Income from off-farm sources can be more than 100 percent of total household income if earnings of the operator household from farming activities are negative.

Source: USDA, Economic Research Service, 1999 Agricultural Resource Management Study.

Table 2

Characteristics of farms and their operators, by farm typology group, 1999*Farm characteristics vary across the typology*

Item	Small family farms								
	Limited-resource	Retirement	Residential/lifestyle	Farming-occupation		Large family farms	Very large family farms	Non-family farms	All U.S. farms
				Low-sales	High-sales				
	<i>Number</i>								
Farms	126,920	297,566	931,561	480,441	175,370	77,314	58,403	39,374	2,186,950
	<i>Acres</i>								
Land operated per farm	128	145	155	435	1,033	1,444	2,093	1,089	398
	<i>Percent of farms</i>								
Sales less than \$10,000	78.7	80.8	74.3	36.6	0.0	0.0	0.0	33.1	55.9
	<i>Dollars per farm</i>								
Mean gross cash farm income	7,838	9,456	12,969	34,252	160,621	321,084	989,377	523,292	74,865
	<i>Percent of farms</i>								
Farms by specialization:									
Cash grain	7.6	6.0	9.3	20.8	37.8	36.9	17.8	20.0	14.9
Other field crops	22.2	30.4	22.0	16.5	11.3	13.1	12.3	22.6	20.5
High-value crops ¹	*8.8	6.5	5.8	7.6	7.1	7.1	12.3	24.4	7.1
Beef	41.1	45.1	41.4	40.5	12.2	9.2	9.9	16.0	36.9
Hogs	d	d	d	d	2.3	5.7	9.1	d	1.4
Dairy	d	d	d	5.3	22.4	16.7	14.3	*2.1	4.2
Other livestock	17.1	11.6	20.2	8.5	6.8	11.3	24.4	12.9	14.9
Farms by major farming region:									
Northeast	d	5.6	7.3	6.7	9.6	6.7	6.3	d	6.9
Lake States	d	7.2	8.5	11.4	16.9	12.4	8.5	d	9.7
Corn Belt	*13.9	20.3	19.2	17.9	25.8	27.9	19.5	21.2	19.7
Northern Plains	d	*3.9	6.2	11.8	16.6	15.1	10.0	*10.2	8.4
Appalachia	20.9	17.1	16.3	11.6	5.9	6.9	9.6	d	14.2
Southeast	d	9.7	7.8	7.2	4.2	5.7	9.7	3.2	7.7
Delta	d	6.9	5.5	4.5	3.9	6.6	9.4	**4.1	5.6
Southern Plains	19.8	18.0	15.9	13.1	4.7	6.8	6.2	*11.3	14.2
Mountain	d	6.0	5.8	6.0	6.9	5.5	6.4	10.7	6.1
Pacific	d	d	7.4	9.7	5.4	6.3	14.5	16.8	7.7

d = Data suppressed due to insufficient observations.

*The relative standard error exceeds 25 percent but is no more than 50 percent.

**The relative standard error exceeds 50 percent but is no more than 75 percent.

¹Vegetables, fruits, tree nuts, and horticultural specialties.

Source: 1999 Agricultural Resource Management Study.

Table 3

Characteristics of farm operators, by farm typology group, 1999*The retirement, limited-resource, and low-sales groups have the oldest operators*

Item	Small family farms									
	Farming-occupation					Large family farms	Very large family farms	Non-family farms	All U.S. farms	
	Limited-resource	Retirement	Residential/lifestyle	Low-sales	High-sales					
<i>Years</i>										
Average age of operator	59	69	49	59	49	49	49	52	55	
<i>Percent of operators</i>										
Operators 65 years old or older	47.2	70.5	5.3	39.4	13.0	10.0	9.1	17.8	25.2	
Operators by occupation:										
Farming	29.9	na	na	100.0	100.0	92.5	93.5	*18.4	37.8	
Hired manager	na	na	na	na	na	na	na	53.5	1.0	
Something else	29.0	na	100.0	na	na	6.3	5.7	*22.2	45.1	
Retired	41.1	100.0	na	na	na	d	d	d	16.2	

d = Data suppressed due to insufficient observations.

na = not applicable.

*The relative standard error exceeds 25 percent but is no more than 50 percent.

Source: 1999 Agricultural Resource Management Study.

\$100,000 or more (high-sales small farms, large family farms, and very large family farms). These larger farms are more likely to rent land and hold other assets such as equipment, machinery, and inventories.

Many Farm Households Are Dual-Career

The information on operator household income presented here contradicts one of the persistent myths of farm structure identified by Gale and Harrington (1993): farmers rely almost entirely on their farms for a living. How long this myth has been untrue is not clear. Although farm operator

households' dependence on off-farm income is commonly viewed as a recent development, one-fourth to one-third of farm operators worked off-farm in the 1930s and 1940s (fig. 3).

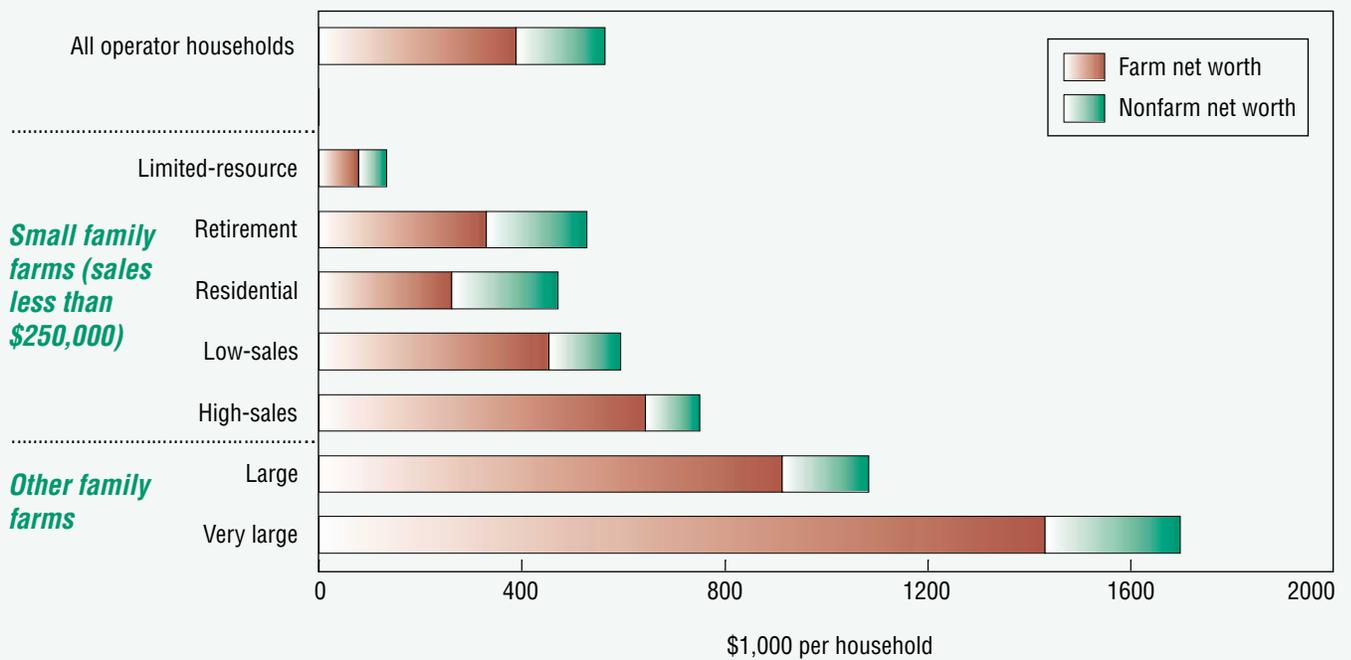
In more recent times, both operators and spouses in each typology group, to some extent, have held off-farm jobs (table 4). In fact, many farm households today are dual-career, or bivocational, like their nonfarm counterparts. This is most obvious in the residential/lifestyle group, where 63 percent of the households reported both the operator and spouse worked off-farm in 1999.

However, even households with very large farms were dual-career. In addition to the operator's farm work on these farms, 32 percent of the households had a spouse—but not an operator—working off-farm, and another 7 percent had both an operator and a spouse working off-farm. In other words, 39 percent of households operating very large farms were dual-career, with a spouse working off the farm and an operator farming (largely without off-farm work). The Current Population Survey estimated that 45 percent of all U.S. households had two or more workers in 1999, so households with very large farms appear to be somewhat less

Figure 1

Average farm operator household net worth, by farm typology group, 1999

The farm accounts for most of farm households' wealth

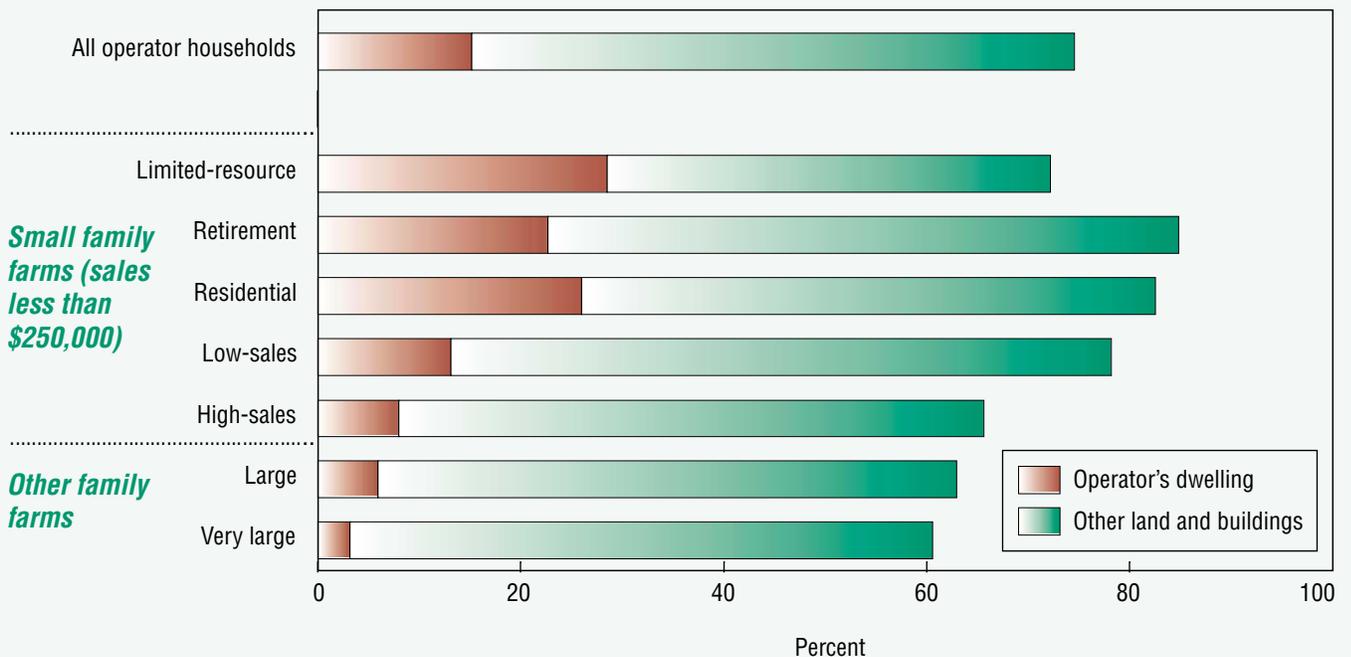


Note: Household net worth data are not collected for nonfamily farms.
 Source: USDA, Economic Research Service, 1999 Agricultural Resource Management Study.

Figure 2

Share of farm business assets in real estate, 1999

Most farm assets are in real estate

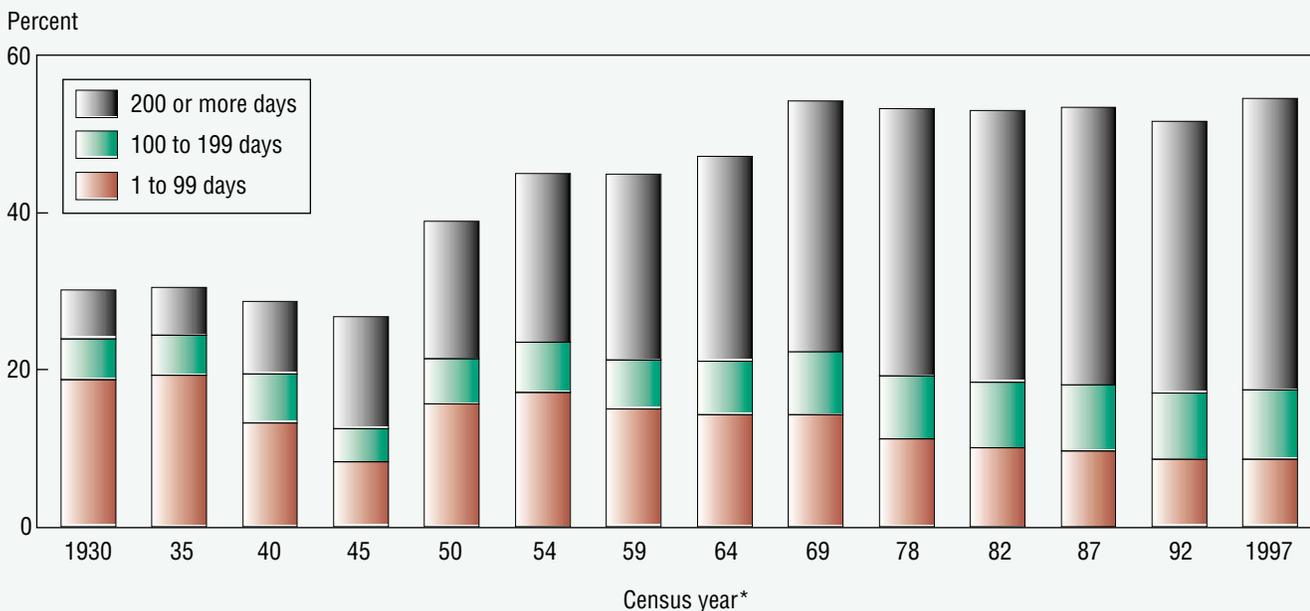


Note: Includes both the assets held by the operator household and assets held by other households.
 Source: USDA, Economic Research Service, 1999 Agricultural Resource Management Study.

Figure 3

Farm operators reporting off-farm work, 1930-97

One-third of farm operators have worked off-farm essentially full-time since the 1970s



*Data for 1974 are unavailable.
Source: Census of Agriculture.

Table 4

Off-farm work by typology group, 1999

Household members work off-farm, regardless of typology group

Item	Small family farms							
	Farming-occupation					Large family farms	Very large family farms	All family farms
	Limited-resource	Retirement	Residential/lifestyle	Low-sales	High-sales			
	<i>Number</i>							
Total households	126,920	297,566	931,561	480,441	175,370	77,314	58,403	2,147,576
	<i>Percent</i>							
Off-farm work by operator and spouse:								
Only operator	30.5	7.5	37.2	13.1	10.0	9.1	8.8	23.3
Only spouse	d	16.0	na	23.3	34.4	32.4	31.6	12.6
Neither	56.3	68.7	na	45.4	41.2	44.7	52.2	29.4
Both	d	*7.9	62.8	18.2	14.3	13.8	7.3	34.7
Report income work from another farm	**0.7	**0.9	2.0	*4.8	3.0	3.5	3.7	2.6
Report income from an off-farm business	*10.6	8.6	34.2	16.0	13.5	15.3	14.8	22.3

d = Data suppressed due to insufficient observations.
na = not applicable.

*The relative standard error exceeds 25 percent but is no more than 50 percent.

**The relative standard error exceeds 50 percent but is no more than 75 percent.

Source: USDA, Economic Research Service, 1999 Agricultural Resource Management Study.

Defining Household Income

The Current Population Survey (CPS), conducted by the Bureau of the Census, is the source of official U.S. household income statistics. Thus, calculating an estimate of farm household income from the Agricultural Resource Management Study (ARMS) that is consistent with CPS methodology allows income comparisons between farm operator households and all U.S. households.

The CPS definition of farm self-employment income is net money income from the operation of a farm by a person on his own account, as an owner or renter. CPS self-employment income includes income received as cash, but excludes in-kind or nonmoney receipts. For farmers, in-kind income includes the imputed rental value of the farmhouse and the value of farm products consumed on the farm (such as food and firewood). The CPS definition departs from a strictly cash concept by deducting depreciation, a noncash business expense, from the income of self-employed people.

Farm self-employment income from the ARMS is the sum of the operator household's share of farm business income (net cash farm income less depreciation), wages paid to the operator, and net rental income from renting farmland. Adding other farm-related earnings of the operator household yields earnings of the operator household from farming activities. (Other farm-related earnings consist of net income from a farm business other than the one being surveyed, wages paid by the farm business to household members other than the operator, and commodities paid to household members for farm work.)

Table 5

Operators' highest ranking goal, by typology group, 1995

A rural lifestyle is most important to many small farm operators

Goal	Small family farms						Large family farms	Very large family farms
	Limited-resource	Retirement	Residential/ lifestyle	Farming-occupation				
				Low-sales	High-sales			
Farm provides an adequate without off-farm work								
Farm provides a rural lifestyle	X (tie)	X	X	X (tie)				
Farm is able to survive adverse markets or weather	X (tie)			X (tie)	X	X	X	
Increasing acres operated								
Increasing assets and equity								
Passing farm on to the the next generation								

Source: USDA, Economic Research Service, 1995 Farm Costs and Returns Survey, version 1.



Photo courtesy Digital Stock, Master Collection.

likely to be dual-career than households in general. However, table 4 understates work by farm households, because it only considers work by spouses and operators, not other household members.

In addition to off-farm work that generates wages and salaries, some operators also earn net income from operating a second business, a second farm, or some other pursuit. A farm household's sources and level of income depend on a combination of decisions on allocating labor, management skills, and other resources between farming and other activities.

Farm Income Versus Rural Lifestyle

For many farm households with small farms—particularly those with both the operator and spouse working off-farm—income may not be the main reason for farming. The 1995 Farm Costs and Returns Survey (FCRS) asked farmers to rank various goals, and the highest ranked goal for each group is shown in table 5.

Lifestyle was the most important goal for retirement and residential/lifestyle farmers, and lifestyle and survival were tied for first place for limited-resource and low-sales farmers. These operators'

high regard of a farm lifestyle helps explain why they continue to farm despite losses.

On the other hand, surviving adverse markets or weather was the most important goal for operators of high-sales, large, and very large farms. These farmers also ranked adequate income, increasing sales, and increasing assets and equity fairly high. All these goals are related directly to the success of the farm business. Not coincidentally, these groups all depend on their farms for a significant share of their income.

Implications for Farm Households and Rural Areas

Households operating high-sales small farms, large family farms, and very large family farms rely on farming for income. Increased farm earnings could also benefit operators of retirement farms and the older operators of limited-resource and low-sales small farms. These operators may have few employment opportunities and might be helped by efforts to increase income from small farms through extension, marketing programs, and credit targeted at small farms. Nevertheless, farm households—on average—depend on off-farm income for at least

part of their income, regardless of typology group. Opportunities to find employment in either the local nonfarm economy or within commuting distance are important to farm households.

Given the higher educational attainment of younger farm operators and their spouses, the trend toward dual-careers and multiple jobs (on and off the farm) is likely to continue. And labor-saving technology could accelerate this trend. For the 932,000 residential/lifestyle farmers, the nonfarm economy is particularly important, since most of them do not generate positive income from farming. For operators of retirement farms, the status of retirement programs and the returns on investments are also critical.

The existence of dual-career farm households, with at least one spouse involved in off-farm work, may generate demand for local services. For example, child care, elder care, house cleaning, house and yard maintenance, and car care may become necessary, and roads must be passable in winter. Satisfying these needs can open up opportunities for local entrepreneurs and place demands on local government for road maintenance.

In some respects, dual-career households are more like nonfarm households than the “traditional” farm household. According to the traditional view of the farm and its operator household, there is a close relationship between agricultural production and household consumption, with most production and consumption occurring on the farm. According to this traditional view, members of the farm household primarily devote their labor to agricultural production and the maintenance of the household. In return, the household obtains most of its income from the sale of farm

output, and in many instances, the members of the household directly consume a portion of that output. Off-farm work may occur in the traditional farm household, if it is necessary to support the farm and continue its existence. In contrast, current farm households regularly allocate labor and other resources between farm and off-farm pursuits, just as nonfarm households allocate their resources among different economic pursuits.

Not all the benefits of farming are captured by farm earnings, as measured here on a cash money basis. Though generally not large,

nonmoney income could be an important source of income to many low-income farm households. Moreover, the farm also provides an opportunity for wealth accumulation, especially since nonfarm demand for land affects the value of farm real estate, the largest source of asset holdings of all farm typology groups. Wealth based on land, however, is illiquid and cannot be accessed without scaling back the operation. Finally, for farmers operating many small farms, a rural lifestyle may be more important than the level of farm income. **RA**

For Further Reading . . .

H. Frederick Gale and David H. Harrington, "U.S. Farms—Diversity & Change," *Agricultural Outlook*, AO-198, ERS-USDA, July 1993, pp. 3-6.

Janet Perry and Jim Johnson, "What Makes a Small Farm Successful?" *Agricultural Outlook*, AGO-266, ERS-USDA, Nov. 1999, pp. 7-10.

Cheryl J. Steele, "Why U.S. Agriculture and Rural Areas Have a Stake in Small Farms," *Rural Development Perspectives*, Vol. 12, No. 2, ERS-USDA, Nov. 1997, pp. 26-31.



ECONOMIC RESEARCH SERVICE
U.S. DEPARTMENT OF AGRICULTURE

search

New ERS Website



user-friendly navigation powerful search engine enhanced features & services syntheses of research & analysis

Visit the ERS Website

A completely redesigned, re-engineered ERS website. Users will find timely, comprehensive economic analysis on agriculture, food, the environment, and rural development, presented in a streamlined format with enhanced information and features.

-  **More user-friendly navigation.** Find exactly what you need more easily and quickly.
-  **A powerful search engine.** Search by topic, or use an advanced search feature for more specific information.
-  **Enhanced features and services.** Easily locate upcoming events and publications, ERS experts, and new and newsworthy ERS research products. Customize your ERS e-mail subscriptions.
-  **Syntheses of specific ERS research.** Visit briefing rooms for an in-depth, synthesized discussion of ERS research on a wide range of individual topics, along with access to publications, data, and related information sources.
-  **Easily accessible data.** Access data re-engineered for ease of location and use; databases on major commodities and trade allow users to retrieve data by commodity, country, and time period.

More . . .

Find a wealth of economic analysis on issues ranging from the World Trade Organization...to farm business concerns such as risk management and farm structure...to food safety, environmental policies, and the economy of rural America.

key topics:

many to choose from



how to:

to help you



latest publications

latest data products

resources

services

Visit the ERS website and explore the contents

www.ers.usda.gov