

Farm Economy a Foundation for More Prosperous Communities

By Jeffery S. Hall

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Most of us hold strong feelings for farms and rural life even though we are likely to be two to three generations removed from them. We value the ideals of farm life as a part of our history that is well worth preserving. A drive through the countryside, past grazing cattle, the smell of newly mown hay, and arrow straight rows of corn offers a nostalgic escape from the rush of modern life. For many, summer weekends on grandparents' farm are an idyllic childhood memory.

But nostalgia can cloud our thinking. Without a frame of reference for the demands of modern agriculture, we tend to view farms the way they used to be. But things have changed dramatically. Earlier this century, one third of the nation's population lived on a farm. Today, only 2 percent of Americans live on a farm and only 1 percent is actively engaged in production agriculture. Because agriculture has become so much more efficient over the past 40 years, Americans spent 40 percent less of their income on food last year than they did in 1957. That translates into \$400 billion in extra disposable income in 1997 alone. We have grown so accustomed to the abundance of our nation's food supply that this achievement is seldom recognized as one of the most remarkable success stories of the century.

Instead, the economic contributions of agriculture are often overlooked or even ignored. Many of us simply take them for granted. But when viewed in terms of the web of relationships agriculture involves, the economic potential of farming is immense. If the objective of economic development is to create new wealth and retain the wealth which already exists, then farming and agriculture are a valuable foundation on which to build more prosperous communities throughout Kentucky. To do so, we must better utilize our indigenous natural resources in ventures of value-added manufacturing and processing. We can no longer simply mine, cut, or harvest our raw materials and send them elsewhere. We must enrich our understanding of today's agricultural economy and seize more opportunities.

Our Food & Fiber System

The expanse of the nation's food and fiber system is immense. Its marketing alone involves 17 percent of the U. S. workforce and contributes 14 percent to the total gross national product. Food processing,

wholesaling, retailing, food service, and marketing generated about \$450 billion in income last year.

The contribution of farming to Kentucky's economy is also significant. In 1994, according to the U.S. Census Bureau, 400,000 Kentuckians relied on farming for employment either directly or indirectly. An estimated 113,602 people were employed on farms and another 87,220 employed in agriculture-related services, manufacturing, and processing. Indirectly, it is estimated that another 200,000 people provided the final links between farmers and consumers. Consequently, more than one of four working Kentuckians is in some way linked to agriculture.

For states that recognize its enormous potential, this complex web of economic relationships is an invaluable resource that links nations, states, counties, communities, and individuals. It can serve as a common bond for the future. However, this web of relationships did not occur by accident and will not flourish without adequate support and proper nurturing.

Moving Up the Food Chain

In order to cultivate a more vibrant farm economy in the Commonwealth, we must help farmers move up the food chain whenever possible by adding value to their original product. We must reduce dependence on mass produced, low-profit, raw commodity production and help farmers forge new marketing arrangements, integrate production and marketing, and produce goods designed for specific end uses and specific markets.

A recent report by Dr. James V. Worstell for the Office for Environmental Outreach of the Kentucky Department of Agriculture, *Kentucky farms and markets: emerging policy opportunities*, summarizes results from a series of 30 local meetings held across the state. The constraints associated with marketing farm products were identified as the key barrier to sustaining Kentucky's farms. Meeting participants concluded ". . . Kentucky will be able to create a more profitable and solid foundation for the future in direct proportion to the availability of new, sustainable marketing opportunities for Kentucky farmers."

Why is marketing so important? Because, since the turn of this century, production agriculture has relied more heavily each year on someone else to do the marketing. These intermediaries have made billions of dollars assuming a responsibility that farmers have been reluctant to integrate into their work. By nature, by training, and by desire, most farmers are producers. They focus on growing things-not on selling what they produce. Driving a \$75,000 tractor or a \$100,000 combine is more important than using a \$2,000 computer to access information about the best markets for their products.

A long-term goal of processing more Kentucky-grown agricultural products within the state will help close the gap between farmers and markets. More importantly, it will increase farm income, add significantly to the value of local small businesses, and expand the total economic activity of the state. Increasing the number of local buyers also stimulates competition for primary products, thus increasing market prices for farmers and creating additional income and employment in both rural and urban areas.

Expanding Markets

Markets for agricultural products have been dramatically altered over the past 50 years, and most of the forces of change have originated with the consumer. The marketplace now offers a wider variety of consumer products through a larger range of outlets. Today, an estimated 240,000 different packaged food products are made by U. S. food manufacturers. In 1995 alone, nearly 17,000 new food products were introduced to domestic and world consumers. In 1994, consumers paid \$540 billion for domestically produced food items that left the farm gate valued at \$115 billion; farmers received only 20 cents of every \$1 spent on food.

Where did the other 80 cents go? It went toward building and maintaining the massive infrastructure that supports the nation's largest industry the processing, packaging, distribution and marketing of food products. Farmers produce commodities that food marketers want in order to meet consumer demand. As a consequence, farm income is more closely linked to the ability to produce commodities than it is to consumer demand. But when the production end of the food chain becomes more focused on the consumer end, the potential for increasing the farmer's share is enormous.

Some of this nation's most innovative entrepreneurs are Kentucky farmers. Some cultivate thousands of acres while others manage just a few. Some have adopted satellite technology to pinpoint nutrient applications and monitor crop yields. Others are raising crops with a predetermined end use that makes livestock grow faster or allows cookies to taste more consistent. Beef farmers in our state now forge contracts in the export market before calves are even born. Vegetable growers contract with urban residents to deliver weekly baskets of organically grown produce. We are raising specialty cabbage in eastern Kentucky and gourmet popcorn in western Kentucky.

Agriculture will continue to evolve and change because it is market- and consumer-driven. Just as every other industry has undergone reorganization and restructuring, so too must farming. It does not necessarily have to become industrialized or integrated to make the transition. Instead, as entrepreneurs across the Commonwealth are demonstrating, the new farm economy has room for all types of farms.

Kentucky has clearly reached a crossroads in its history. At this juncture, we must work together to give the family farm an opportunity to survive. State and local leaders must understand that decisions, albeit well intentioned, can have unintended consequences. Policies crafted to preserve the family farm could in fact stifle the growth needed to maintain our markets.

Reckoning with Tobacco's Future

Giving small farms the chance to survive also means reckoning with tobacco's future. Tobacco production is the backbone of most family farms in our state and it traditionally has been our most valuable crop. Indeed, Kentucky is the most tobacco-dependent state in the United States. According to the U. S. Department of Agriculture, 17 of the nation's 20 most tobacco-dependent counties are in Kentucky. This is not only reflected in the percentage of income that tobacco contributes to Kentucky's

total farm cash receipts but what it contributes to farm income in individual counties. In 1994, the most current data available, the sale of tobacco accounted for more than 5 percent of personal income in 26 of our counties. While tobacco income as a share of total personal income for the entire state is only 1 percent, its importance is magnified at the local level. Not many other subsectors within a local economy can claim such a share.

Tobacco production provides the income which allows most of our smaller farms to exist. If the proposed tobacco settlement makes its way through Congress and into law, it must include provisions to assist tobacco producers and tobacco-dependent communities. Even if the settlement fails, and it very well may, we should still seek a portion of the taxes collected on tobacco to be designated for agricultural development initiatives in tobacco-producing regions. Federal, state, and local governments already collect six times more money from taxes on tobacco than farmers earn producing the crop. It is hard to find another product which is taxed as heavily. It is reasonable to seek some of this money to assist tobacco-producing states with the economic transition ahead.

It is impossible to precisely predict how much Kentucky farmers will earn from tobacco five years from now. Whether more or less than today, we must focus on creating new opportunities for all of our farmers. Whether you call them replacement crops or supplemental crops, the diversification and growth of agriculture should be a priority for the leadership of this state.

Kentucky Agriculture's Tremendous Potential

Agriculture holds tremendous potential in Kentucky. An estimated 88,000 farms cover nearly 14 million acres of the state, and the farmers of this land hold assets valued at an estimated \$17 billion. The basic production of farm commodities generated \$3.1 billion in sales last year, but it doesn't end there. Just to produce their crops or raise their livestock, farmers spent \$2.7 billion for goods and services, including expenses like feed and fertilizer, interest paid to financial institutions, local property taxes, fuel and electricity, and wages to local workers. An estimated \$8 billion of additional economic activity is generated in other sectors of the state's economy because of the many goods and services that farmers and their families buy. Agricultural product processing and related activities already comprise one of the largest manufacturing sectors in the state economy.

Because agriculture extends into all areas of Kentucky, realization of its potential could have a broad-based economic impact. Every county in Kentucky has some type of agriculture. Income from farming exceeds \$100 million in four Kentucky counties and \$50 million in another nine counties. In fact, 82 of our counties have farm receipts in excess of \$10 million. Leslie County, the smallest county in terms of cash receipts, still generated \$200,000 in income for local farmers.

Agriculture's impact extends well beyond our rural communities. While the farm income in Jefferson County ranks relatively low, the agricultural economy in the Louisville area has a larger payroll than any other industrial sector, including health care, banking, and automotive. It also is the most productive industry in the Louisville area based on the dollars in value added to products, according to a 1996 study

by the Louisville Area Chamber of Commerce's Agribusiness Committee.

Contrary to most beliefs, Kentucky agriculture is diverse. For 30 years farm income has been evenly divided between crops and livestock. While tobacco, beef cattle and horses account for over half of farm income, seven different commodities generate more than \$100 million in farm gate receipts. Another 15 farm products had sales over \$10 million. These statistics do not include the impact of forest products, which many estimate to exceed \$1 billion in income at the primary and secondary industry level.

Importantly, Kentucky agriculture has a solid history on which to build. For more than 25 years, Kentucky has been home to more farmers than any other state east of the Mississippi River. We rank fourth nationally. However, because we have so many small farms, farms dependent on tobacco and farms which will not survive without tobacco, we rank 20th when it comes to farm income.

Kentucky has, nevertheless, followed a national trend of fewer farmers on larger farms. Just 5 percent of our farms generate one half of farm income. These larger commercial farms generate annual sales of more than \$100,000 annually. According to the latest Census of Agriculture, 56 percent of farmers in this state do not farm as their primary occupation. They work at an off-farm job and spend evenings and weekends tending to their farm. They look for the farm to basically pay its own way and rely on their off-farm income for family living expenses.

Census numbers also show that nearly 90 percent of Kentucky's farm families depend on a family member to generate some off-farm income in order to make a living. Even a farm with sales of more than \$100,000 often cannot generate enough net income to sustain a family, since more than 70 percent of the income goes to cover production costs.

Positioning Kentucky for the Future

For 60 years, the federal government enhanced rural prosperity by manipulating crop prices and boosting farm income. A new era began in April 1996 when Congress shaped a much diminished federal role and federal farm policy shifted to a more market-driven strategy to raise farm and rural income. In this new context, the greatest challenge farmers face is that of anticipating and negotiating volatile prices for goods and services, as well as those for their products. In the years ahead, improvements to our marketing infrastructure, including creative marketing alliances, can provide Kentucky farmers with the risk reduction tools to compete and prosper in this new era.

Fortunately, we have a tremendous resource base. From the fertile fields of western Kentucky to the tree-covered mountains in the east and the productive lands between, we have what it takes to farm here in Kentucky. We have the rainfall to make our crops grow lush without irrigation and the surface water to supply our livestock. We have a moderate climate that offers a long growing season for plants and places very little stress on livestock.

When our farm products leave the farm, we have a nearly ideal location to reach the consumer. We are

within a one day drive of two thirds of U. S. consumers. We have more than 2,000 miles of railroad tracks and commercial air service at five major airports.

Given this enormous resource base, what must we do to seize a greater share of the opportunity that awaits us? Clearly, government has a key role to play in shaping policies and processes that will enable Kentucky farmers to grow more prosperous.

State Government. Kentucky must make long-range investments in and enable dramatic expansion of production and processing and encourage agricultural development. Specifically, state government should designate two thirds of the revenue (approximately \$10 million) generated from the current excise tax on tobacco products to agricultural development. This would reallocate, rather than increase taxes. Additionally, tobacco states should push for a portion of the current federal excise tax (just 2 percent would generate \$120 million) on tobacco products to be returned to tobacco-producing states for agricultural development.

Kentucky Department of Agriculture. The Kentucky Department of Agriculture should be restructured. Today, two thirds of the Department budget goes toward consumer protection rather than development of the state's farm economy. The Department inspects gas pumps, calibrates scales, monitors amusement rides for safety, and regulates pest control firms. Remaining funds are designated for commodity price collection, animal health programs, and department overhead. Little money remains to help the general farm economy. Regulatory functions should be moved to another agency, allowing the Department to define a clear mission of serving Kentucky's agricultural community, and the Commissioner of Agriculture should become an appointed cabinet level post in the Governor's Office.

Economic Development Cabinet. In recent years, the Economic Development Cabinet has paid increased attention to agriculture as a targeted industry. More than 9,000 new jobs have been created in the food and wood sector of the state's economy over the past three years alone. But Kentucky needs to step up the pace of agriculture industry recruitment and expansion. Given Kentucky's accessibility to two thirds of the nation's consumers, we can become a central location for processing and transporting food and wood products. The Cabinet for Economic Development should review and change the criteria for providing incentives to take into account the typically higher employment multipliers for agriculture-related industries.

Agriculture in Kentucky could be one of the most affordable economic development strategies that any community can employ. The basic infrastructure already exists and our most important asset, human capital, is in place. Routine agricultural expansion is more affordable than recruiting a new industry and the new wealth is created and spent locally.

Agriculture's contribution to Kentucky is visible all around us. From the farm to the consumer's plate, the links in this complex chain, however, often go unrecognized. Agricultural development can help increase the wealth of our citizens. But realizing its enormous potential will require a serious commitment and a combined effort, not just from agriculture, but from everyone who benefits from a

more prosperous Kentucky.

Jeffery Hall is Coordinator of Ag Project 2000, a statewide economic development initiative with the mission of increasing farm income. The opinions expressed here are his own.

Building a Learning Community in Bowling Green

By Edward M. Yager, Jr.

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The rise of a knowledge-based, technologically driven global economy (Drucker, 1993) has created new and significant challenges for Kentucky communities. In some cases, the pace of change and the complexity surrounding it has been confusing to community leaders, who search for ways to effectively lead in this changing environment.

One way of bringing some clarity to these developments is through the use of a metaphor. A metaphor allows us to understand one element of experience in terms of another by emphasizing the similarities of two objects or phenomena. Although some risk of distortion exists, powerful insights can be generated when the appropriate metaphor is used.

An increasingly interdependent, knowledge-based global economy that relies substantially on information processing suggests that communities with effective capacity for self-development may resemble the functioning of the human brain. A brain metaphor directs our attention toward brain-like functions existing within a community, such as rationality, creativity, memory, learning, and decisionmaking. Scholars increasingly argue that these brain-like qualities are important, and will continue to be important, in successful and prosperous communities in the global economy (Blakely, 1994; Fosler, 1988; Luke et al., 1988; and others). Moreover, the brain metaphor has already been successfully employed in organizational studies by a host of researchers, including Herbert Simon who discovered important insights into organizational decisionmaking (Simon, 1947). In fact, Simon's discoveries won him the Nobel Prize! Consequently, by understanding certain processes in the brain, we may gain increased understanding of building "brain-like" capacity in Kentucky communities to effectively compete in the changed economic environment that rewards "smart" communities.

The Learning Community

Communities, like brains, must have the capacity to learn if they are to be effective, particularly in today's fast-paced environment. One important discovery about the human brain that has implications for building learning communities is the brain's largely decentralized, holographic and specialized design. Recent scientific evidence suggests that brain function is largely decentralized and distributed-

there seems to be no center or point of control, but rather a process out of which order emerges, rather than being imposed from a single focal point (Morgan, 1997). In other words, the brain's learning capacity is based upon networked intelligence that is self-organizing.

Neuroscientist Karl Pribram of Stanford University has suggested that the brain's design is holographic and creates processes where "the whole can be encoded in all the parts, so that each and every part represents the whole" (Morgan, 1997: 75). Each brain cell, for instance, has the encoding of DNA which contains information required to unfold the complete development of the human body. To supplement its holographic design, the brain also reveals characteristics of a specialized nature. Split brain research, for instance, has demonstrated that the brain's right hemisphere assumes a dominant role in creative, intuitive, emotional, acoustic, and pattern-recognition functions and controls the left side of the body. On the other hand, the left hemisphere is more involved with rational, analytic, reductive, linguistic, visual, and verbal functions while controlling the right side of the body (Morgan, 1997). In general, the brain appears to be largely a decentralized, networked intelligence with processes of both a holographic and specialized nature.

Do these findings have any relevance for Kentucky communities in the Information Age? If we accept the proposed metaphor, then the decentralized, networked intelligence that we find in the brain suggests that elite control of a community, also known as the "good old boy" network, may seriously impair the community's maximum potential for learning and adapting to changing conditions. Rather, a community that has broad-based civic participation, and encourages citizen dialogue and collaboration, more closely resembles the networked intelligence of the human brain, and is therefore better positioned to become a learning community.

In addition, and also corresponding to brain functions, the learning community is likely to be both specialized and holographic. Adam Smith, Frederick Taylor, and other scholars have analyzed the virtues of vocational specialization and its wealth generating potential. Specialization provides for the development of expertise and functional proficiency, which increases economic efficiency. Without vocational specialization, the community's reservoir of knowledge is diminished and its capacity to learn impeded. On the other hand, the community's specialized functions must be exercised in a highly interdependent fashion. Unless the specialized components of the community work together cooperatively, learning capacity again will be diminished. This suggests, then, the need for holographic features within the community to provide cohesion and integration. Citizens must see the "big" picture, extending beyond their specialized pursuits, to a knowledge and concern about the entire community. In other words, citizens should be, metaphorically speaking, encoded with the community's "DNA"-that is, they should be unified on fundamental purposes, values, and vision for the community at large. Some degree of unity is crucial before diverse elements of the community can effectively collaborate-sharing knowledge and information on a variety of community issues.

A learning community, which resembles an effectively functioning brain, will be well positioned to "learn how to learn" in the information age. This means, according to a recent study, going beyond the routine collection and processing of information to the actual creation of new insights and knowledge (Nonaka and Takuchi, 1995). Community collaboration is essential to gain fresh perspectives on

community issues-and creative insights require a community dialogue which questions the status quo, old routines, old standards, and old ways of doing business. A spirit of innovation is imperative in order to build the learning community.

Bowling Green's "Community of the Future"

The brain-like features of community learning capacity just reviewed are currently being developed by the Community of the Future project in Bowling Green and Warren County. Under the auspices of the Bowling Green-Warren County Chamber of Commerce and Western Kentucky University's Institute for Economic Development, Bowling Green's Community of the Future project is part of a network of over 30 communities in 15 states involved in establishing learning communities for the 21st century. The project strongly encourages participating communities to cultivate and develop the features common to the metaphor of effective brain functioning: decentralized and networked learning processes linked to both holographic and specialized designs. Although the Bowling Green effort has not received much publicity, The Kentucky Long-Term Policy Research Center noted in 1995 that "(in Bowling Green), the Communities of the Future project has established a national capacity building focus, emphasizing technology, citizen networks, leadership development, and consensus democracy" (Smith-Mello, 1995: 67).

Under this approach, the old paradigm of top-down (elitist) community leadership is considered a major impediment to community learning, growth, and development. Rather, the Communities of the Future concept encourages decentralized, broad-based citizen networks as the basis for shared vision and on-going collaboration on community issues. Communication technologies are expected to enhance these collaboration efforts. With a broader base of diverse citizens participating and learning from one another through collaborative efforts, the community's capacity to learn and adjust to changing circumstances is expected to be enhanced. Specifically, the Center for Communities of the Future has recommended the following elements in building community learning capacity:

- Allow a broader base of citizens to set the collective agenda for any community.
- Design processes of citizen involvement to tap the strengths of a community's diversity when developing a strategy for any important issue.
- Gain citizen ownership and support for specific plans of community action.

With the consulting assistance of Rick Smyre, President of the Communities of the Future, the Bowling Green project has established a Steering Committee which is currently exploring ways of building a learning community with increased capacity for transformation in the Information Age. This has involved some discussion about other projects throughout the nation, including demonstration projects in Covington, Lexington, Louisville and Somerset.

In the Bowling Green project, the Steering Committee considers and evaluates any information about

other Communities of the Future projects but recognizes that its own development path will be unique. Committee members, drawn from diverse backgrounds, follow no systematically prescribed plan or model. Rather, they are proceeding with the realization that community transformation will appear "chaotic" and disorderly at times. Notwithstanding the amorphous nature of the project, a general framework for action has been developed for building a learning community for the 21st century. This framework calls for the integration of consensus democracy, digital economy, and transformational learning into the thinking and operations of the community by:

- Developing a network of neighborhood leaders who are trained with the skills and knowledge crucial to managing community change, such as: knowing how to access and use the Internet; facilitating small group discussions; and understanding the impact of future trends upon the community in general, and their own neighborhoods in particular.
- Developing an electronic community infrastructure that allows diverse citizens to communicate with one another.
- Developing ways to educate the youth of the community about the need to understand the impact of future trends.
- Designing diverse ways of encouraging citizen participation in civic collaborative efforts.
- Exploring ways of developing a shared vision for Bowling Green and Warren County.

Conclusion

Community transformation does not occur easily. Change threatens the power and position of some; creates uncertainty and anxiety in others; and presents new challenges and responsibilities to the untested. Nevertheless, a changing world requires that Kentucky communities develop new and effective capacities for learning and adapting in the Information Age. Drawing upon the metaphor of the human brain, learning and growing communities are likely to foster broad-based citizen collaboration. Bowling Green's Community of the Future project is one such effort, currently underway, to effectively position the Bowling Green Area for the demands of the next century. This largely uncharted path will likely bring a variety of changes to the Bowling Green community, including a new understanding of community leadership. Rather than a few leaders setting the direction for the community, many leaders will likely emerge to broker and encourage a collaborative process. The Communities of the Future project refers to this new type of community leader as a "process" leader since he or she will facilitate and maintain the process of collaboration which is crucial to community learning.

In a recent and acclaimed book entitled *Grassroots Leaders for a New Economy*, economic development consultants Henton, Melville and Welsh affirm the direction taken by Bowling Green's Communities of the Future project.

... a new kind of leader is emerging to help American regions become strong economic communities. The civic entrepreneur (or process leader) is the catalyst for building economic community. Civic entrepreneurs build relationships between the economy and the community. They provide the leadership that brings people and institutions together across sectors and jurisdictions to work on the long-term development of their region. In some cases, this work means solving complex problems. In others, it means being the first to see and seize opportunities. Civic entrepreneurs often come from business, but they can come from government, education, or other sectors. They contribute their time, experience, and personal networks to help their regions collaborate to compete in the global economy" (Henton, et al., 1997: 6).

If the metaphor of the brain is an accurate depiction of the learning process within a community, then just as brain cells and their communication networks are valuable resources in developing human intelligence and learning capacity, a community's citizens and their capacity to collaborate are valuable resources in improving the quality of community life. Bowling Green's Communities of the Future project recognizes this truth by affirming the value of its citizens and the promise of their collaborative efforts in building a learning and growing community.

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Edward M. Yager, Jr., is an assistant professor of political science in the Department of Government at Western Kentucky University.