

5 Comparative Analysis

5.0 Introduction

Each of the ten counties in this study is unique and has its own story to tell. For some counties, economic progress has come more through chance events and luck than through some deliberate strategy. The current boom in Greene County, PA, is the product of shale gas extraction, and Pendleton County, WV, relies on a small military installation to sustain its economy. In other cases, regional strategies or large infrastructure investments have played a vital role in building a viable economy. Lawrence County, AL, and Pike County, KY, are examples of federal interventions that transformed a community and sparked economic growth.

Likewise, barriers to local economic growth are also quite varied. Some areas, such as Calhoun County, WV, seem to be cursed by location. Others, such as Noxubee County, MS, carry an overwhelming historical burden. Policies, at both the state and federal level also appear to play a role. A lack of broadband, an inability to secure matching funds, and tax and alcohol policies all serve to deter growth in some areas. Mechanisms designed to level the playing field for rural areas, such as Local Development Districts, perform inconsistently when applied to the poorest and most rural communities.

Even though these counties vary considerably, they also share a number of important characteristics. A comparison of all ten counties demonstrates a number of important trends. Education, leadership and health care, for example, all play important roles in the economic development of an area. The counties also shared a number of common concerns, especially problems related to youth retention and drug abuse.

Lastly, all counties in this study share a common spirit of resilience and innovation. Every county can claim some noteworthy effort to improve their community. Local residents and officials, often operating independently, have undertaken projects to create jobs, build leaders, engage youth, and attract tourists. Often, perhaps out of necessity, the most innovative and inspiring efforts have come from the distressed counties. In most cases, these efforts serve as models for application in other Appalachian communities.

This chapter will examine some of these important trends, assess common issues, and illustrate programs and efforts being conducted across the region. The discussion will gauge the impact of ARC investments, interventions, and regional strategies on these ten representative case studies covering 21 indicator topics.

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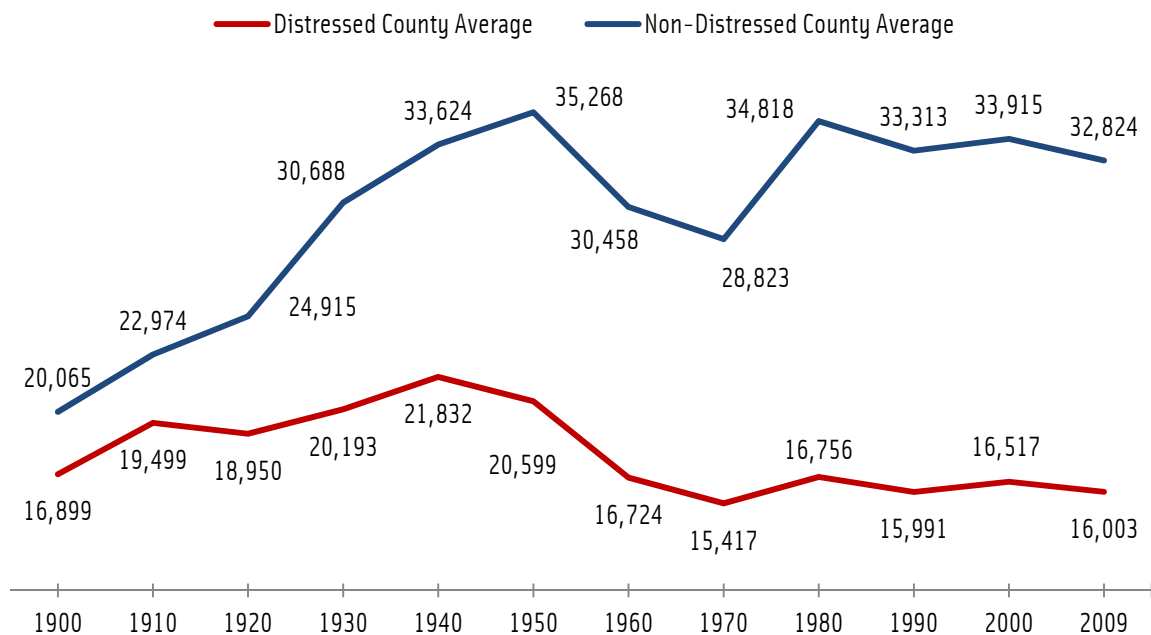
5.1 Population Trends

Conventional wisdom suggests that successful counties add residents and distressed counties lose residents. In this case, however, that assumption is not always upheld. Just four of the ten counties – Lawrence (AL), Avery (NC), Johnson (TN), and Morgan (OH) – have shown a population increase since 1990. Of these, only the increases in Avery and Lawrence Counties appear significant. Johnson’s increase is largely due to their convict population, and Morgan grew by less than 100 residents over two decades. Even Avery’s growth is debatable, as the county hosts both college students and a large number of part-time citizens whose residency may have more to do with tax codes than actual occupancy status.

Surprisingly, two non-distressed counties, Pike, KY, and Pendleton, WV, experienced significant population declines in the past twenty years. Pendleton’s decline is likely understated due to the number of military personnel in the county. Even Greene County, PA, has seen a slight decline in spite of an economic boom and a local college population.

A number of factors help explain this trend. A lack of opportunities, for both work and recreation, play a significant role. This is especially true among youth. Youth retention is cited as a major concern for all ten counties, and all study communities complained of a “brain drain.” Rising energy costs may also play a role, as residents of many communities are facing long commutes, flat wages, and rising costs of living.

Figure 5-1: Population averages for distressed and non-distressed study counties, 1900-2009



In some areas, particularly Kentucky, tax policies play an important role. There, higher income residents moved to communities in adjacent states seeking relief from income and personal property taxes. Interestingly, however, this was not the case in Avery County, NC. Though adjacent to Tennessee, local officials reported that outmigration to the adjacent low-tax state was not an issue. Residents of the more

affluent and better educated county appear to prefer the schools and amenities found in North Carolina to the lower taxes in nearby Tennessee.

The trend towards declining populations represents a serious threat to the development of rural communities. It is difficult to see how communities that constantly lose residents can experience sustained economic growth. Urbanization, a characteristic of modern Appalachia, will likely continue at the expense of rural communities. Rising energy costs, changes in health care access, the need for broadband access, and the rise of retail supercenters will likely accelerate this trend. Changes in the nation's energy portfolio, such as the adoption of limited-range electric vehicles, may also increase the rate of urbanization.

Government policies, including ARC efforts, may contribute to this trend. Growth centers, industry clusters, and supply chains that encourage the concentration of resources seem to be predicated on an assumption of affordable transportation. These policies, however, do not necessarily guarantee growth. Pike County, KY, an early beneficiary of ARC's growth center strategy, lost 10% of its population over the past two decades. Tax records suggest that while the county continues to attract small numbers of migrants from more rural surrounding counties, it loses even more residents to larger urban areas, such as Louisville and Lexington.¹⁰⁸

To date, none of these counties have found a proven answer to the problem of youth retention. Programs tied to career development and entrepreneurship, however, appear to hold promise. Morgan County's incubator project, Avery County's business development programs, and Lawrence County's agricultural education partnership with Auburn University all have the potential to create home-grown opportunities for local youth. As these programs continue to develop and move forward, they should be evaluated as models for other rural communities in the region.

Another important population trend is the lack of racial diversity found in most of the study communities. Aside from the Southern subregion, study communities are over 90% white and many young people grow up with little or no direct exposure to people from many other races, cultures, or belief systems. Many residents acquire their perceptions of other races, religions, or ethnic groups through mass media or outmoded parental views. Isolated communities also face challenges when working with an increasingly diverse business community. Calhoun County, WV, for example, is among the poorest and most isolated communities in this study. One of the two restaurants in the county seat of Grantsville was the Koffee Kup Kafe - known locally as "the KKK." That colloquialism, probably coined with no ill intent, would likely be viewed as offensive to many outsiders and could easily deter future investment.¹⁰⁹

This lack of exposure has cultural consequences, and survey participants from across the entire region complained about racism in their communities. Conversations with community leaders, however, suggest

¹⁰⁸ John Bruner, "Where Americans Are Moving," <http://www.forbes.com/2010/06/04/migration-moving-wealthy-interactive-counties-map.html>

¹⁰⁹ *The Koffee Kup Kafe, a long-time community fixture, ceased operation in May 2011. "Two Restaurants Close in Grantsville - Locals Complain about Void," Hur Herald Online, May 21, 2011, http://www.hurherald.com/cgi-bin/db_scripts/articles?Action=user_view&db=hurherald_articles&id=44308.*

that these perceptions may also have economic consequences. Young people from these communities often have difficulty coping with diverse academic or work environments.

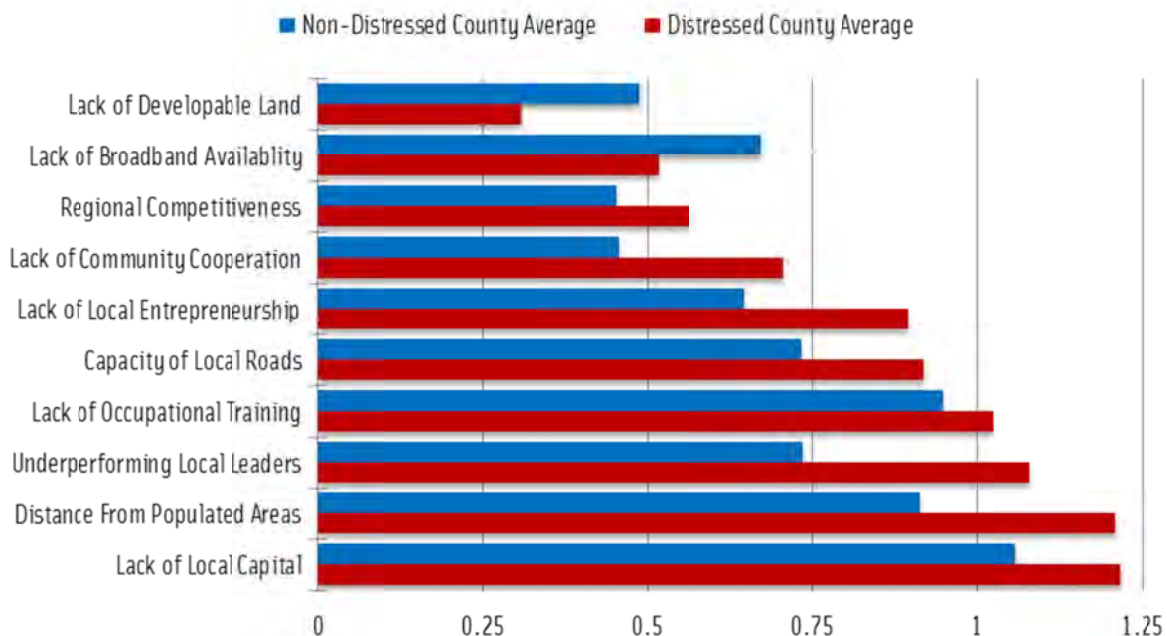
5.2 Location and Access

In economic development, as in real estate, location matters. Rural communities located near urban areas or major employment centers enjoy a decided competitive advantage. Among study counties, this benefit is clearest in Lawrence County, AL. The community's proximity to Huntsville, Muscle Shoals, and other north Alabama cities has proven to be a significant factor in the county's success. Likewise, Pendleton County, WV, benefits from its location near Harrisonburg, VA, and Avery County from its closeness to Boone, NC.

These three examples also help illustrate the value of transportation access. While ADHS Corridor V did not, by itself, transform Lawrence County, it did allow the community to fully capitalize on its main competitive advantage - its location. Avery and Pendleton counties, in contrast, appear constrained by the narrow winding roads that connect them to their urban neighbors and are not able to fully exploit their location.

Yet, just as this study has shown the importance of roads and location, it also reveals the limits of these assets. Location and access, by themselves, do not guarantee success. Greene County, PA, for example, enjoys an optimal location on an Interstate between Pittsburgh, PA, and Morgantown, WV. From the county seat of Waynesburg, it is a forty minute Interstate drive to a major city, several large research universities, and a major airport. The county, however, does not appear to have benefitted significantly from this location and its recent success appears to be tied more to gas drilling than any urban relationships.

Figure 5-2: Responses for the survey question, "How likely is each item an obstacle for economic growth in your county?" (Very Likely=-2, Likely=-1, Unsure=0, Likely=1, Very Likely=2)



The most glaring example of these limits, however, is seen in Noxubee County, MS. By all accounts, Noxubee County should be a thriving community. It is located along a modern four-lane highway between three growing cities. Just minutes from the state's land-grant university, the county is less than a half day's drive to the Gulf of Mexico ports of Mobile, Biloxi, and New Orleans - close enough for easy access, but outside of the significant hurricane damage zone.

Yet, despite these advantages, the community languishes due to antiquated racial customs, class divisions, political infighting, and low levels of educational attainment. The county offers a compelling argument that transportation improvements alone are not sufficient to transform an economy and that such investments should be predicated upon or accompanied by other much needed reforms.

Some study communities illustrate the unintended consequences of highway improvements. The Cumberland Gap Tunnel, for example, has brought many benefits to Bell County, KY. The tunnel, as intended, has increased tourism, improved retail sales, and reduced traffic fatalities. Local officials admit, however, that the tunnel has also contributed to the exodus of some residents from their county.

Road construction may also lead to other regional impacts. Roads that benefit some communities may lead to economic decline in others, creating a state of "windfalls and wipeouts." Completion of ADHS Corridor V through Lawrence County, AL, for example, led to the development of a Wal-Mart Supercenter in Moulton. This growth clearly benefitted the community, but local officials readily admitted this growth occurred at the expense of neighboring counties. These policies, which contribute to the development of trade centers, clusters, and supply chains, may also contribute to the depopulation of more rural areas.

5.3 Downtowns

Road improvements can prove detrimental to historic downtowns. Communities in this study like Moulton, AL, and Pineville, KY, have clearly benefitted from highway improvements, but these gains have occurred at the expense of their downtown and courthouse square areas. In fact, the most viable and appealing downtowns in this study, Newland, NC, and McConelsville, OH, are in counties that lack significant highway improvements. Communities undertaking highway projects need to better comprehensively understand and prepare for these types of consequences. This is especially true of bypass projects which, by design, draw traffic away from established downtowns and their retail districts.

Survey results reflect public concerns about struggling downtown districts. Overall, just 2% of survey respondents rated their downtowns as excellent while 20% found them to be adequate. The vast majority of respondents rated their downtown areas as fair (54%) or poor (24%) with distressed areas faring slightly worse than non-distressed.

To their credit, many study communities are making efforts to revitalize their downtown districts. Some are participating in Main Street programs. Others such as Macon, MS, and McConelsville, OH, have opened visitor centers in their downtowns. Perhaps the best example of revitalization efforts in this study is found in Waynesburg, PA. This project is noted for its collaborative partnership between the city, Greene County, and Waynesburg University and for its innovative use of social media to promote local businesses.

Some counties, including Morgan, OH, and Pendleton, WV, have initiated “buy local” campaigns. The programs promote local businesses and encourage residents to patronize locally owned shops, restaurants, and service providers. Accompanying the marketing of such efforts are noteworthy public education campaigns that explain the ripple effects their local expenditures have on the local economy. Initial responses to these efforts are encouraging and they should be monitored to assess long-term results.

5.4 Public Transportation Services

Public transportation services emerged as an issue in virtually all project counties. Two-thirds of survey participants (66.4%) rated local public transit services as either “poor” or “inadequate.” Interestingly, dissatisfaction with public transit was higher in non-distressed counties (72.3%) than in distressed communities (60.5%). Of the ten counties in this study, only Morgan County, OH, has a transit system that is considered adequate or excellent by a majority of residents.

Public transportation, of course, poses significant challenges in rural Appalachia. The widely dispersed nature of both trip origins and destinations makes effective public transit difficult and often impractical. The sparse population typical of most Appalachian communities also increases logistical inefficiencies, thereby adding to operations costs.

Perceptions are also a significant barrier, as many consider rural transportation to be a service for the poor or a means to “get old folks to the store or to the doctor.” Rising transportation and fuel costs for lower income segments of the population, however, may make public transit more of a priority. As transportation becomes more of a barrier to work and adequate healthcare, rural areas may need to consider a wide range of transit options. These may include shuttle van services as well as organized car pools or ride-sharing.

5.5 Industrial Development

Attitudes towards industrial development differed between distressed and non-distressed counties. Distressed counties, for their part, tended to view manufacturing as more important, with almost half of survey respondents believing industrial development as being very or somewhat important for economic growth. Non-distressed counties, on the other hand, were somewhat less certain, with about 40% believing industry will be a likely source of growth.

Attitudes also differed according to subregion. Survey respondents from the counties in Southern, Central, and Northern subregions show significantly more confidence in manufacturing growth than participants from the North Central and South Central subregions. These may reflect experiences of some of these counties with plant closures but may also show the move of some counties, especially Johnson (TN), Avery (NC), and Pendleton (WV), to more of a tourism-based economy.

Reactions were also mixed on the potential for new or emerging industries. Survey participants in the Central and Northern subregions, for example, were optimistic about the potential for alternative energy industries. These areas, long associated with energy production, saw potential for growth in new energy technologies, with nearly half of survey participants finding such growth very or somewhat likely. In contrast, only about 30% of residents from other subregions anticipated growth in these areas. Survey

participants were consistently less optimistic about technology or information based growth. Only about 30% of respondents felt such growth was somewhat or very likely, while about half found it unlikely.

Attitudes related to globalization were also consistent. Overall, 2.9% of survey respondents strongly agreed and another 19.1% agreed that globalization had benefitted their community. Over 48%, however, either disagreed or strongly disagreed that their community had benefitted from globalization. A significant number of participants, 29.9%, remain unsure about the impact of the global economy.

Local experiences with industrial development vary considerably, particularly those dealing with industrial parks and structures. Lawrence County, AL, for example, is enjoying considerable success with a traditional development strategy. With ample road, river and rail access, the county is poised to attract another major industrial facility in the near future. Lawrence County's experience, however, appears to be the exception among the study counties. Most counties struggle with industrial development and face difficult decisions related to the development and management of their aging industrial infrastructure.

A legacy of industrial sites threatens progress in Pendleton County, WV, and drains scarce resources from other programs. Pendleton County officials might draw from the experience of Morgan County, OH. There, leaders faced a similar dilemma and sold an industrial site in order to concentrate on other development strategies. Counties might also learn from Bell County, KY, where officials forgo turnkey "spec building" structures in favor of a strategy that allows for the quick construction of custom industrial buildings.

5.6 Coal and Gas

Coal casts a powerful and enduring shadow over much of the Appalachian Region. This is particularly true in North, North Central, and Central subregions where coal remains an important industry. The culture of coal is pervasive and miners maintain an iconic status in the community. In recent years, however, coal has become increasingly controversial and coal producing regions have become proudly defensive and defiant.

This reaction is understandable. Coal, after all, is an important natural resource and will likely remain a key element in the nation's energy portfolio for the near future. At the same time, however, coal's future is far from certain. Utilities, the largest consumer of coal, are transitioning away from the fuel in both the U.S. and abroad. Increasing regulations, environmental concerns, and improvements in nuclear technologies and alternative renewable sources are all contributing to this possible transition.

Appalachian producers also face increasing competition from western coal producers. Western states have vast reserves of coal that is relatively accessible via open pit mining practices. As a result, they are able to produce coal for a fraction of the cost of eastern states. Coal from Wyoming, for example, averaged \$12.41 per ton in 2009. Coal from Kentucky, in contrast, averaged \$58.54 per ton - 4.7 times more. Given those

prices, it is not surprising that Wyoming currently leads the nation in coal production. That western state now produces 40.1% of the nation's coal, more than all coal producing Appalachian states combined.¹¹⁰

Given these statistics, the Appalachian coal industry may experience future decline. However, coal producing regions appear ill-prepared for this contingency. When asked about a post-coal future, officials and residents struggled to respond. To their credit, many counties are beginning to diversify and create non-coal jobs. Bell County, KY, for example, is embracing tourism in an effort to expand its economy.

Pike County, KY, deserves special recognition for investing in the research of new industries related to the energy field. Their strategy, tied to their legacy of coal production, could help create jobs around emerging energy sources. The envisioned energy research center, partnering local and state universities and national laboratories, could create new jobs and secure long term growth. Yet even this effort seems overly imbued with the orthodoxy of coal, with much of the proposed research geared towards coal-related products.

While Appalachian coal production is declining, natural gas drilling is booming. This is especially true in Greene County, PA, which is at the epicenter of the Marcellus Shale boom. Hydrofracking, while controversial, has lifted the local economy and proven to be a boon for many land-holding families. This extraction method, increasingly common in Pennsylvania, is poised to spread to other states in the near future. As this occurs, Greene County should serve as a model for both the benefits and dangers of this growing practice. The county's experiences in educating the public about environmental risks, economic benefits, and legal rights should be watched closely by other communities.

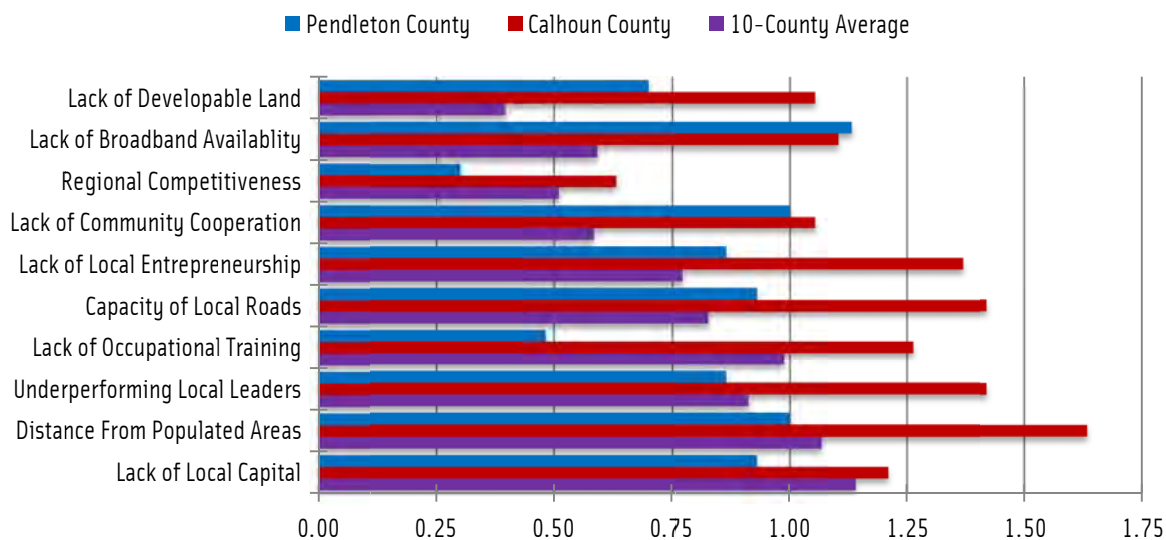
5.7 Developable Land Constraints

Geography is a major barrier to the development of non-coal industries in coal producing regions. The local mountainous terrain limits developable land to a fraction of the total land area. As seen in Figure 5-3 and Figure 5-4, a majority of survey participants in the North Central and Central subregions, respectively, identified local geography as a likely constraint to growth. A significant number of respondents from the Northern subregion also felt terrain is an obstacle, though not to the degree of neighboring subregions.

In order to diversify, communities must find ways to deal with these physical constraints. In both Kentucky counties, cut and fill approaches are an important means of creating new space. This re-use of surface mine sites and the "hollow fill" of other areas is not without merit. Indeed, these approaches have helped create important open space in and around Pikeville for residential, commercial, and recreational developments. At the same time, however, this approach also carries significant costs by radically and permanently altering the local environmental landscape.

¹¹⁰ National Mining Association, "U.S. Coal Production by State and Rank: 2009," http://www.nma.org/pdf/c_production_state_rank.pdf; U.S. Energy Information Administration, "Average Sales Price of Coal by State and Mine Type: 2009," <http://www.eia.gov/cneaf/coal/page/acr/table28.html>

Figure 5-3: Pendleton and Calhoun County, WV, response to question, "How likely is each item an obstacle for economic development in your county?" (Very Unlikely=-2; Unlikely=-1; Unsure=0; Likely=1; Very Likely=2)



Curiously, developments in these areas do not appear to be optimized for the local terrain. Big-box retailers, large parking lots, and low-density developments are common and not unlike those in other regions. Governments in these areas should implement more efficient land use strategies to better utilize scarce space resources. Pike County has already taken important steps in this direction. Downtown Pikeville is encouraging vertical development and the construction of multi-level parking garages. Additional research should be conducted to help identify innovative and appropriate development approaches.

5.8 Broadband Infrastructure and Utilization

A more common constraint for Appalachian counties is the lack of modern communications infrastructure. Inadequate access to broadband Internet and cellular networks was a common complaint among communities in this study. While approximately half of survey participants classified their Internet access as adequate or better, another half stated it was inadequate or poor. Surprisingly, these responses did not vary considerably by economic status, as residents of distressed and non-distressed counties were almost equally dissatisfied with Internet access.

Over 70% of survey participants cited poor telecommunications and Internet access as likely obstacles to economic growth. Residents of non-distressed counties were slightly more apt to view lack of access as a greater problem than those of non-distressed counties. Issues with Internet access were common in four of the five subregions. Only the Central subregion, which benefits from the ConnectKentucky program, reported high satisfaction with Internet access. In fact, almost 90% of Kentucky respondents classified their Internet access as adequate or better.

This lack of connectivity deters growth in a number of ways. Large employers, for example, require dedicated high speed data connections to conduct business in today's global economic environment. Small businesses, however, are also affected. Lack of Internet access, for example, prevents Avery County, NC,

Christmas tree growers from marketing directly to consumers and makes hotels in Pendleton County, WV, and Johnson County, TN, less attractive and less accessible to visitors.

The impacts of poor access, however, go far beyond commerce. Lack of connectivity or digital capacity, for example, prevents community officials from learning about important funding opportunities and keeps them from submitting online applications. Poor access denies isolated counties a voice in decision making processes, as webinars or videoconferencing require meaningful participation. The negative effects on workforce preparedness, digital literacy, and government and civic efficiency run deep.

The social and cultural effects are also profound. The lack of broadband increases the isolation felt by many residents and adds to a sense of alienation. Activities that more urban residents take for granted – streaming movies, learning of breaking news, connecting via social media with family and friends, or online gaming – whether in front of a computer or on the go – all currently prove difficult and often impossible for residents of these rural counties. The lack of access to these services, an increasing part of mainstream culture, may contribute to the exodus from rural areas, especially among young adults and families.

Valid reasons exist as to why broadband has failed to reach rural Appalachia. In many cases, there is simply a lack of market justification for private service providers to invest in the infrastructure to reach buildings and cell towers throughout difficult rural terrain. Simply put, if profits were to be made in the lagging parts of Appalachia, service providers would already be there. Arguments can also be made that the public sector shouldn't be burdened with the build of the infrastructure through sparsely populated, remote areas.

As with roads, water, and sewer, broadband access should be regarded as a critical part of a community's infrastructure. Therefore, the issue of broadband connectivity for all Americans is one that must be borne out of partnership with both private and public sector entities. Around the country, public-private partnerships have worked well in rural areas, and ConnectKentucky is an example lauded in this report.

Government agencies at all levels should look to successful models to help communities bridge this digital divide. In particular, they should evaluate the Connected Nations program, and its predecessor, ConnectKentucky, which stands out as a success story in rural broadband deployment and is worthy of replication. In fact, in addition to Kentucky, two of the eight states in this study have modeled such organized efforts in their states after Kentucky, with Connected Tennessee and Connect Ohio programs.¹¹¹ Officials may also want to revisit historical models related to rural electrification, which may also provide important lessons in rural service delivery.

Not every model will work in every community because of community size, population density, political structures, or service provider capacity, so there is no easy template for replication that will work in every community. However, every community has basic civic assets, such as public safety, healthcare and public structures such as libraries, hospitals and schools, which must have communications connectivity to national backbone networks. Understanding this, the American Recovery and Reinvestment Act of 2009

¹¹¹ <http://www.connectednation.org>

provided funding for such policy improvements and infrastructure gaps in middle and last mile backbone networks, yet plenty of such gaps remain throughout Appalachia, including the counties in this study.

The Federal Communications Commissions' National Broadband Plan (2010)¹¹² continued to show importance for middle and last mile infrastructure, and furthered the idea and importance of private service providers working closely with public sector institutions. Born out of the FCC's National Broadband Plan was the U.S. Unified Community Anchor Network (U.S. UCAN), which is dedicated to connecting community anchor institutions, including libraries, schools, colleges, public safety and health care institutions, as well as local and county governments, economic development organizations and chambers of commerce with advanced broadband capabilities.¹¹³

The ARC is uniquely positioned to play an important role in fostering such organizational relationships throughout the Region to connect such anchor institutions for local and regional broadband strategies. The ARC, together with existing federal partners like the FCC, DOC/NTIA, USDA, and U.S. UCAN, and national associations like the National Telecommunications Cooperative Association¹¹⁴ and the Rural Telecommunications Congress¹¹⁵ can provide further input on these issues. Together, the ARC and such organizations can uniquely engage community stakeholders and service providers to bring broadband and all its benefits to rural Appalachia.

For communities that already have broadband, it is not enough for there to be connectivity throughout the community and economic development "just happen." More must be done to encourage widespread broadband adoption and utilization. Equally important, more effort should be put toward increasing digital literacy skills and broadband usage throughout every community organization and business.

For example, this report has lauded the efforts of the State of Kentucky and the ConnectKentucky initiative that is bringing broadband infrastructure to all underserved parts of the state. According to survey data and local discussions, people in the Kentucky communities are aware that broadband exists and understand the importance of broadband for economic development. However, it appears not much is happening in the way of encouraging broadband adoption or actually using the broadband infrastructure for economic development at the local level.

To illustrate this point, Figure 5-4 below shows that residents and officials in Pike and Bell County, KY, think that broadband availability is likely not an obstacle for economic development for either of the Kentucky counties. In fact, the two Kentucky counties are the only two counties in this study to report that access to broadband is likely not an obstacle for economic development, and is well below the 10-county average response.

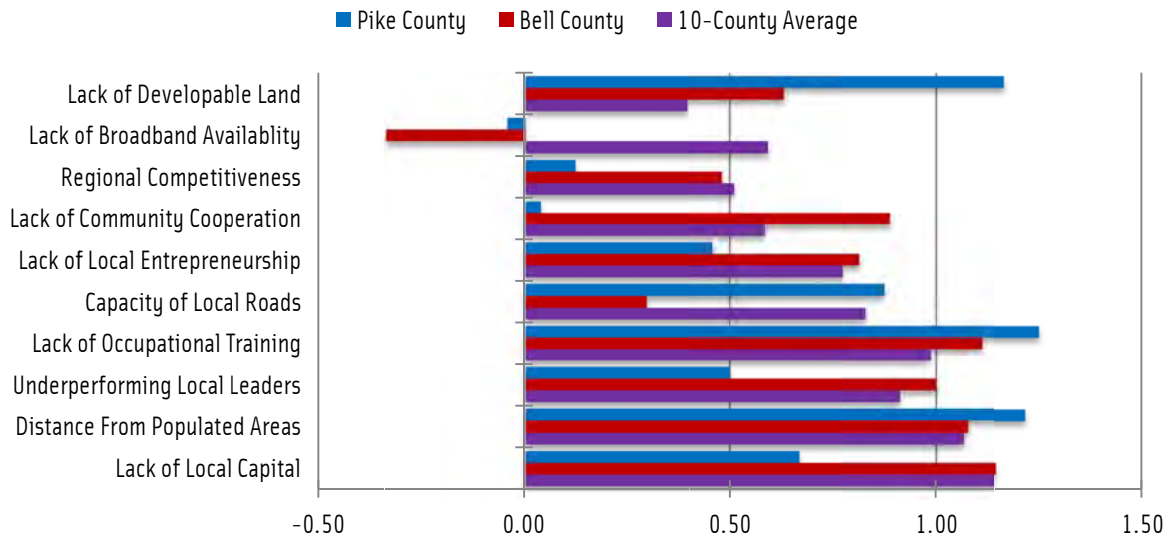
¹¹² <http://www.broadband.gov/plan>

¹¹³ <http://www.usucan.org>

¹¹⁴ <http://www.ntca.org>

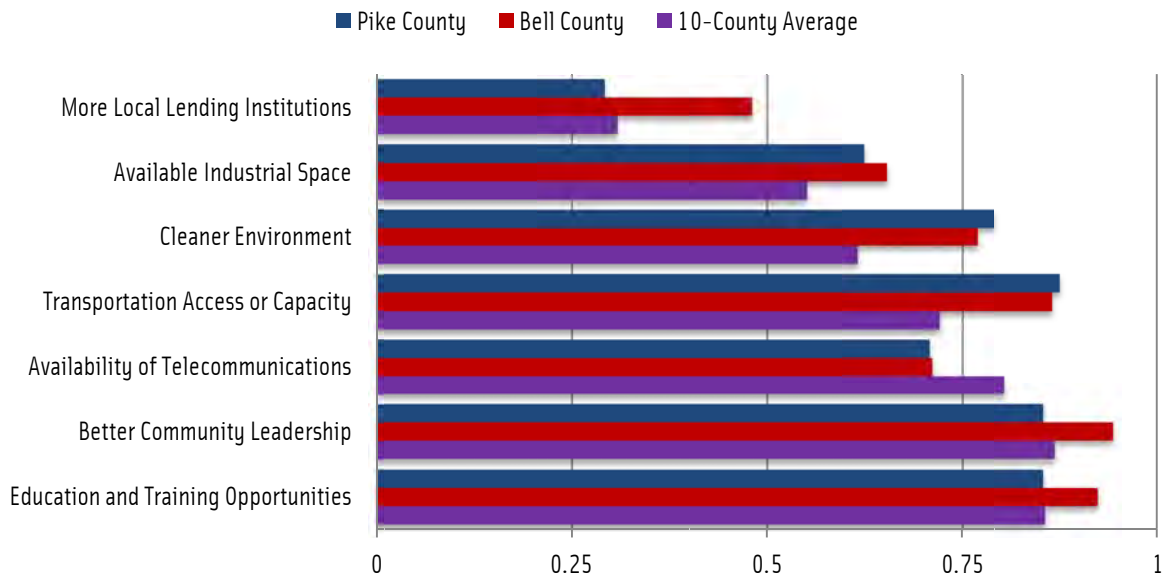
¹¹⁵ <http://www.ruraltelecon.org>

Figure 5-4: Pike and Bell County, KY, responses to the question, “How likely is each item to be an obstacle for economic development in your county?” (Very Unlikely=-2; Unlikely=-1; Unsure=0; Likely=1; Very Likely=2)



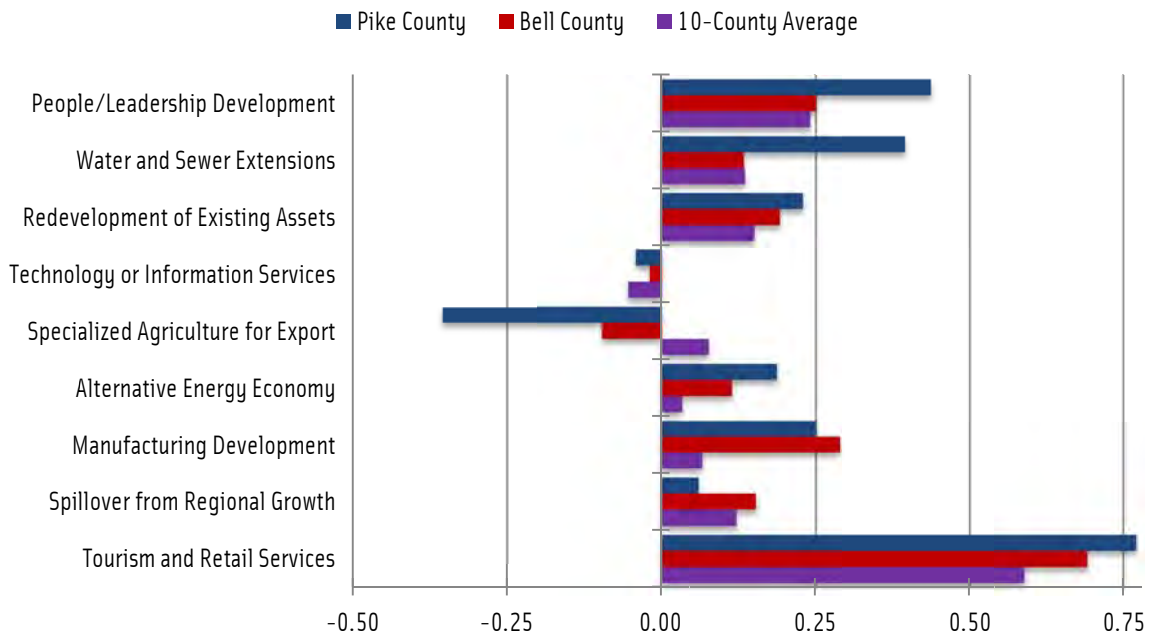
In addition to the availability of broadband availability, Figure 5-5 shows that people from the two Kentucky counties also consider broadband to be important for economic development. They rated the importance of broadband generally on par with importance of other enablers of economic development. Interestingly, however, both Kentucky counties consider the importance of telecommunications availability for economic development slightly under the study average.

Figure 5-5: Pike and Bell County, KY, responses to the survey question, “How important are these items for economic development in your county?” (Not important=-1; Unsure=0; Important=1; Very Important=2)



Both Pike and Bell County residents agree that broadband is important for economic development, and both counties also agree that it is unlikely that broadband availability presents an obstacle for economic growth. Given that, it is most interesting that residents view broadband-enabled economic opportunities in their county as slightly unlikely (Figure 5-6), and during discussions, no new jobs or businesses were credited to broadband utilization. Remarkably, the two counties in this study best positioned to benefit from broadband, in fact, do not recognize the opportunity that broadband presents for economic development.

Figure 5-6: Responses to the question, "How likely is each item to be an opportunity for economic growth in your county?" (Very Unlikely=-2; Unlikely=-1; Unsure=0; Likely=1; Very Likely=2)



Moreover, several of the obstacles to economic development that rated highly in Figure 5-4 can be diminished with the adoption and utilization of broadband. These include lessening the impacts from the lack of developable land and the improving the lack of entrepreneurship. Most importantly, broadband adoption would help bridge the distance with more populated areas, and would help increase regional competitiveness, both of which would remove the feeling of isolation that was reported from residents and business leaders in those two counties.

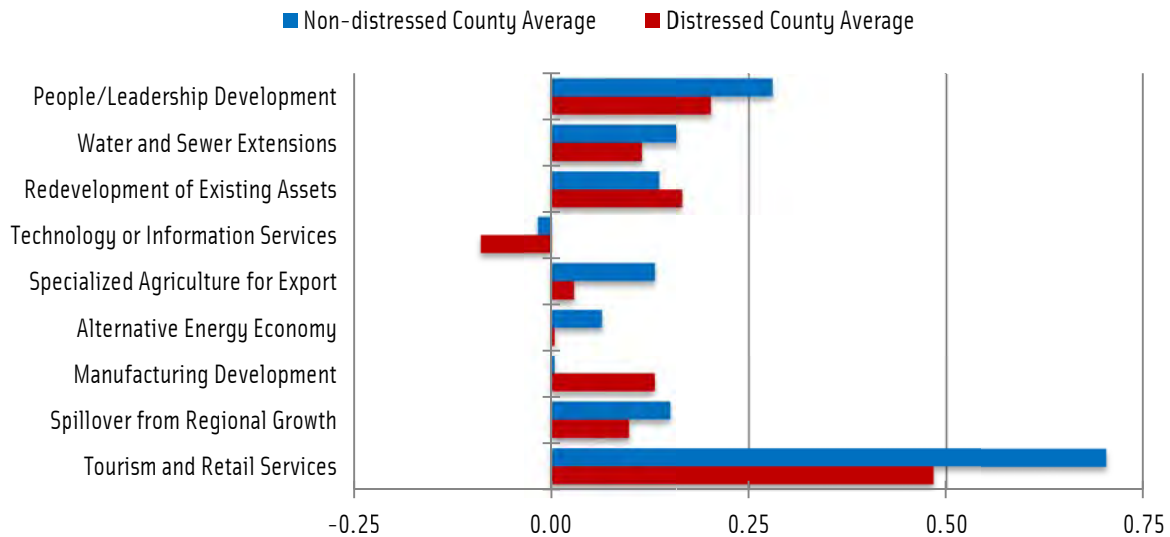
Clearly, as seen in site visits and as reported through the surveys, not enough is being done with broadband adoption and utilization to benefit business development, entrepreneurship, and workforce development initiatives. And Kentucky, for all it has done to 'get connected,' is doing little in Bell and Pike Counties in the way of education to train and encourage residents and organizations to use broadband for economic benefit. It is interesting that Kentucky counties have a distinct competitive advantage in that broadband infrastructure is already in place, yet the argument could be made that broadband is currently doing more to siphon money from rural Kentucky counties through cost of services and online commerce. More must be done in Kentucky and throughout Appalachia to educate the business community and residents on the value that broadband brings to competitiveness, workforce development, and entrepreneurship.

To answer some of these shortcomings, the USDA's Southern Rural Development Center and the National E-Commerce Learning Initiative¹¹⁶ at Mississippi State University is one such effort to increase broadband adoption and utilization for economic development outcomes in rural areas. Also, the US Department of Commerce, in partnership with nine federal agencies, offers an online repository of best practices in the field of digital literacy. DigitalLiteracy.gov is an "online portal to help Americans find jobs and obtain the 21st century skills being sought by today's employers."¹¹⁷ But most readily available would be land grant university extensive services, as well as the Local Development Districts serving each county.

5.9 Tourism Development

Most counties in this study view tourism as a strong opportunity for future growth. Among survey participants, 46.5% saw tourism as a very likely source of future growth and another 38% believed it to be a somewhat likely growth source. Potential was perceived strongest among non-distressed counties, where over 91% of respondents believe tourism to be a source of future development. Still yet, over 77% of distressed county respondents shared this feeling. The promise of tourism development was clearly viewed by all as the most likely opportunity in all study counties.

Figure 5-7: Responses to the survey question, "How likely is each item to be an opportunity for economic growth in your county?" (Very Likely=-2, Likely=-1, Unsure=0, Likely=1, Very Likely=2)



Not surprisingly, Avery County, NC, residents saw the most local tourism potential. Almost 95% of respondents believe tourism to be a very likely source of future growth. In contrast, participants from Calhoun County, WV, were least enthusiastic, where more than half of respondents believed tourism growth

¹¹⁶ <http://srdc.msstate.edu/ecommerce>

¹¹⁷ <http://www.digitalliteracy.gov>

to be very or somewhat unlikely. Even in the case of Calhoun County, however, over 40% of participants believed tourism held potential for growth.

Bell County, KY, stands out among the case studies for its work in developing adventure tourism. While several counties were promoting this rapidly growing tourism sector, Bell County appears to be leading the region in developing and promoting adventure activities. The Kentucky county's success in creating, maintaining and promoting its resources, especially its ATV trails and supporting infrastructure, should serve as a model for other communities in the region. State policies that limit ATV trail liability contributed to this success and should also be studied.

The arts also represent an important tourism growth area. The statement from Avery County that "twenty artists equals twenty jobs" is correct and Appalachian counties are right to view the arts as a bona fide business development strategy. The performing arts were especially well represented in this study and two counties have created successful performance venues. In both Morgan County, OH, and Johnson County, TN, historic structures have been successfully converted to performance halls. The McConelssville (OH) Opera House and Mountain City's (TN) Heritage Hall not only attract visitors they serve as important public amenities for their residents.

Persistent barriers in some areas continue to limit tourism growth. A lack of infrastructure, inadequate marketing, and a lack of workforce training are significant issues in many communities. Vocational training in the culinary arts, hospitality training for local workers, and increased assistance for developing businesses could all help foster tourism and jobs in many areas. Many communities would also benefit from increased awareness of tourism funding and technical assistance for marketing efforts.

5.10 Entrepreneurship

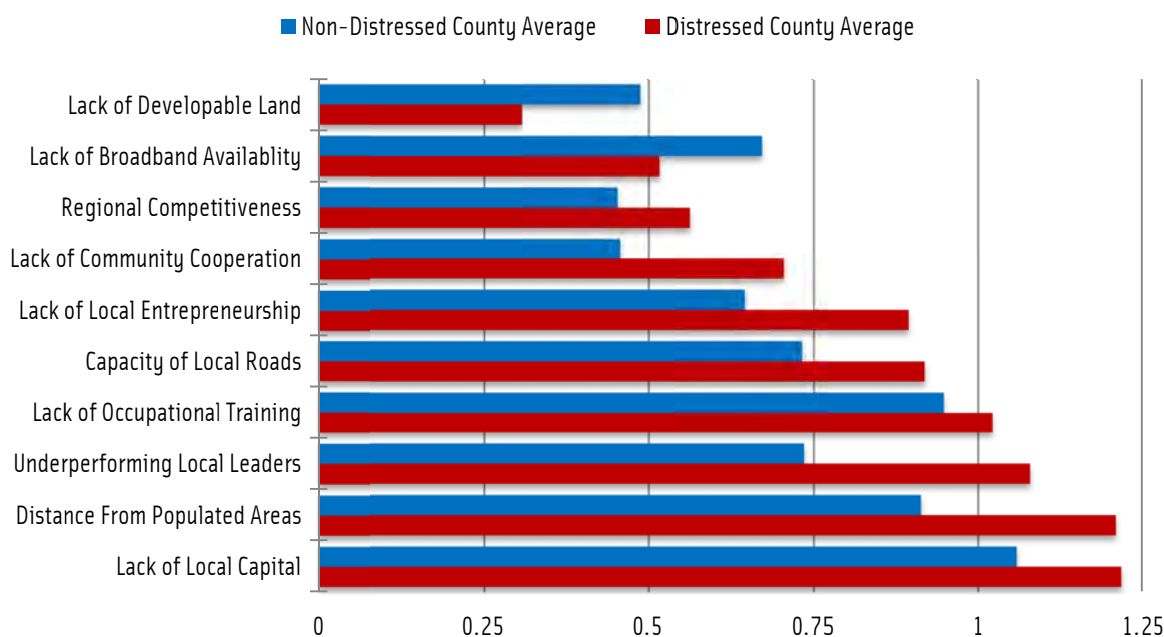
Many of these tourism and retail problems are linked to a lack of entrepreneurship. Aversion to risk, long an Appalachian character trait, continues to plague many parts of the region. In nine of the ten counties, residents and officials discussed a lack of entrepreneurship and the inability to grow small businesses. In some communities the most prolific entrepreneurs were, in fact, new residents or retirees who had moved to the county from elsewhere.

While most residents attributed the lack of business development to an almost innate aversion to risk, other contributing factors include a lack of access to capital and poor business skills. One major deterrent to new businesses, officials report, is the failure of existing businesses. More often than not, business failure was attributed to bad management practices and not market competitiveness. Therefore, business ownership and management training and technical assistance for current business owners could not only help keep existing concerns viable but could encourage the development of new establishments knowing that support resources are available.

In spite of limited resources, communities are implementing programs to foster entrepreneurship. In some areas, such as Pendleton County, WV, and Johnson County, TN, Chamber of Commerce directors are leading efforts to promote local business development. Other communities, such as Morgan County, OH, are undertaking broad partnerships to promote entrepreneurship. Stakeholder partnerships between

government, higher educational institutions, local schools, and business and community leaders are proving to be innovative approaches to help stimulate business growth. Morgan County’s proposed incubator project is among the most innovative programs found in this study and both the approach and its associated partnership deserve recognition and emulation.

Figure 5-8: Responses to the survey question, “How likely is each item to be an obstacle for economic growth in your county?” (Very Unlikely=-2, Unlikely=-1, Unsure =0, Likely=1, Very Likely=2)



The State of North Carolina leads the region in promoting entrepreneurship. Residents of the state enjoy access to a wide range of services and resources to help establish and maintain a small business. Every step of business development, from initial planning to loan financing to ongoing assistance, is available to residents of Avery County and the rest of the state. Also impressive is the level of help provided by institutions of higher learning. Both four- and two-year institutions in the region offer a wide range of support, ranging from technical assistance to industry-based marketing and development programs.

5.11 Online Presence and Social Networking

The Internet has created new opportunities for communities to promote tourism and economic development through websites and online media. Increasingly, the Internet is being used as important portals – or online entry points – offering the opportunity for local governments, community services and social organizations to engage citizen participation. In recognition of this fact, every county in this study maintains some type of web presence. The level of this presence, however, varies considerably throughout the region. Likewise, some counties are using social media tools, mainly Facebook pages and Twitter feeds, to help promote their communities. The effectiveness of these efforts, however, also varies a great deal.

Granted, for now, the broadband and wireless infrastructure needed to fully enable online opportunities is limited in many rural Appalachian communities. However, even the most rural communities with only dial-

up access need to realize the Internet's value in helping to sustain their community. Effective online programs can mean nothing more than a picture of a print brochure, or directory of local businesses and services, or announcements of local events put somewhere online. Relocating families, retirees, expanding businesses, residents and the traveling public all need to be aware of unique opportunities in each community along with contact information for local people who can provide more information.

In the best examples, counties have developed multiple web portals for government, economic development, and tourism. Typically, these organizations connect their sites to one another to allow a potential visitor, resident, or investor to access a full range of information. Among study counties, Noxubee County, MS, and Greene County, PA, stand out for their use of web-based resources.

Noxubee County's Economic and Community Development Alliance recently launched a website to promote economic development. The site, designed to "attract new business, encourage tourism, and grow Noxubee County," is an excellent example of a clear and functional county development portal.¹¹⁸ The site is commendable for not only promoting the county, but also for including a depth of information about the community. Information offered includes an array of downloadable maps, detailed "retail recruitment studies" for the county's communities, and extensive information related to local development incentives.

Greene County, PA, stands out for two websites - those for county government and tourism. The Greene County Government website¹¹⁹ provides access to all county departments and officials, and provides a commendable level of transparency, giving users access to public agendas and meeting minutes. The site also features an employee directory and links to all schools, municipalities, and townships in the county. The site also promotes local events and amenities, provides job listings, and has videos promoting economic development, schools, and the local quality of life.

Greene County also hosts a second website to promote local tourism. The site, operated by the Greene County Tourism Promotion Agency, features an interactive map of local sites, downloadable brochures and guides, and a calendar of local events.¹²⁰ Leveraging local assets, the site has special pages to promote heritage tourism and agritourism attractions. Downloadable coupons are featured to help local businesses attract visitors.

Social networking tools have emerged as important communications channels to promote local assets and improve community participation efforts. Among these Facebook has emerged as the easiest, the most popular with 750 million active users,¹²¹ and the most powerful tool used by communities. While individual businesses and attractions were early adopters of Facebook, local governments and economic development organizations have recognized the trend and now use the service in attempt to improve commerce, attract visitors, and better communicate with its residents and stakeholders.

¹¹⁸ <http://noxubeecountymys.com>

¹¹⁹ <http://www.co.greene.pa.us>

¹²⁰ <http://www.greenecountytourism.org>

¹²¹ <http://www.facebook.com/press/info.php?statistics>

Greene County uses Facebook more than any other community in this study and could serve as a model for other Appalachian areas. Greene County and its partners operate several Facebook pages, including pages for tourism and county commissioners. These pages promote local attractions and annual events and convey public announcements. The county also benefits from “Waynesburg Prosperous and Beautiful,” Facebook page¹²² and web pages dedicated to Waynesburg University’s downtown redevelopment efforts.¹²³ Once an Facebook page has been created, users can “like” the page to be automatically notified when page new updates are made. Essentially, organizational messages are sent to people who follow the page, providing no-cost direct marketing opportunities.

While social media and the Internet offer inexpensive opportunities to promote community assets, they also present new risks. One important issue is maintaining a reputation and positive image in the midst of global opinions. Poor reviews on online travel sites like TripAdvisor, Yelp, or others can prove harmful to a small business and deter prospective visitors. Chambers of commerce, tourism agencies, and business leaders should monitor such sites and assist business owners in quickly addressing business complaints and negative criticisms.

Similarly, officials should also periodically check YouTube, Vimeo, and other video-sharing services for uploaded videos related to their county or community. In some cases, these amateur videos are effective tools in promoting local assets. The popular site YouTube, for example, hosts dozens of videos of climbers scaling Pendleton County, WV’s, Via Ferrata at the Nelson Rocks. These hair-raising clips, and their associated comments, are among the attraction’s most important marketing resources. At the same time, however, a YouTube search for many Appalachian terms retrieves videos that perpetuate negative stereotypes and reinforce erroneous but long-held misconceptions of Appalachian culture. Local tourism and business officials should encourage local businesses to upload positive videos and attach search terms that will link these images to prospective Internet queries.

5.12 Government

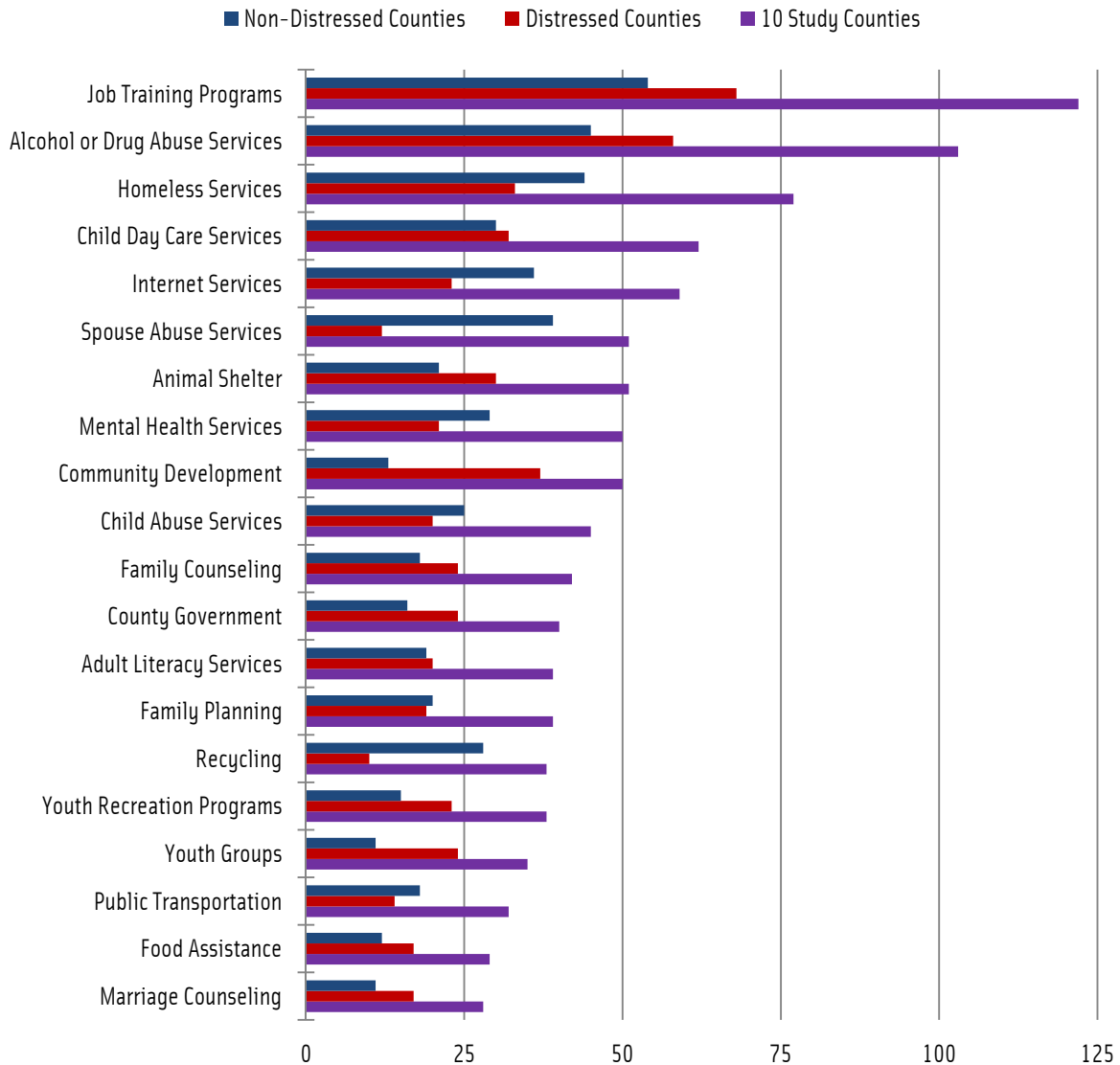
Views of government, particularly at the county level, appear to be mixed. Among survey participants, a majority of respondents (56%) found county government to be adequate, but few (8%) viewed it as excellent. Views varied somewhat according to economic status, with participants from non-distressed counties holding slightly more favorable views of government than those from distressed communities.

Results also varied considerably among individual counties. The highest levels of dissatisfaction, for example, occurred in Lawrence County, AL, one of the highest performing communities in the study, and Morgan County, OH, among the most innovative. Counties with the highest level of satisfaction with their county government were, conversely, Avery County, NC, and Bell County, KY – communities that varied significantly in terms of both income and educational attainment.

¹²² <http://facebook.com/GreeneCountyTourism>

¹²³ <http://www.waynesburgpa.org>

Figure 5-9: A ranking of the top 20 responses to the survey question, "Which services and programs need the most improvement in your county?" (ranked by total number of responses)



Views of local government were slightly more positive. Survey participants generally gave local officials higher marks than their county-level counterparts. As with county officials, non-distressed communities generally viewed local governments more favorable than distressed counties. Locally, attitudes again varied considerably and, in some cases, conversely. Morgan County, OH, and Lawrence County, AL, which scored lowest for county government, had the highest scores for local government officials.

Survey participants were generally satisfied with most essential community services, but found room for improvement in several areas. Job training programs were, by far, seen as the area most in need of improvement. This is not surprising, given the high unemployment rates in many areas. Alcohol and drug abuse services were second, a reflection of high rates of abuse across the region.

The third most prevalent improvement area was, surprisingly, homeless services. Virtually all counties reported a lack of homeless assistance and the problem was consistent in both distressed and non-distressed communities. While this may be a reflection of the limited capacity of some areas to provide assistance, it may also indicate increasing problems associated with rural homelessness. These problems may be exacerbated by the current economic and housing market crises.

Issues of representation were among the most pronounced governance problems encountered. At the state level, small rural counties often shared representation with neighboring counties that were larger and more affluent. In these counties, officials often believed that their legislators represented the interests of the more influential counties over theirs and that they had no effective voice in the state legislature, which ultimately effect policies and various forms of financial support to their county.

County-level representation also emerged as an issue within some counties. Many counties, including those in West Virginia, Pennsylvania, and Ohio, operate with just three elected county commissioners. The small number of county-level officials makes change or innovation extremely difficult. With staggered terms, residents wanting new ideas or a new direction must wait for at least two election cycles to gain a majority. This low number of representatives hinders representation of issues in remote areas and may limit representation of all interests.

Township governments, found in Pennsylvania and Ohio, also emerged as an issue. This was especially true in Greene County, PA, where each township not only has its own government, but also its own local school system. This redundancy promotes inefficiency and increases costs, and also leads to questions about the distribution of resources and equity among township districts within the county.

The efficacy of the county as an administrative unit is also debatable. Most Appalachian counties were formed before the Civil War, when geographic and transportation constraints often determined a county's size. The legacy of these early counties remains, even though the physical constraints that once defined them have long since been addressed. Kentucky, the nation's 36th largest state and its 26th most populous has the third highest number of counties in the United States at 120. Tennessee, which ranks 34th in size and 17th in population, has 95 counties. California, the most populous and third largest state, has, in contrast, just 58 counties.

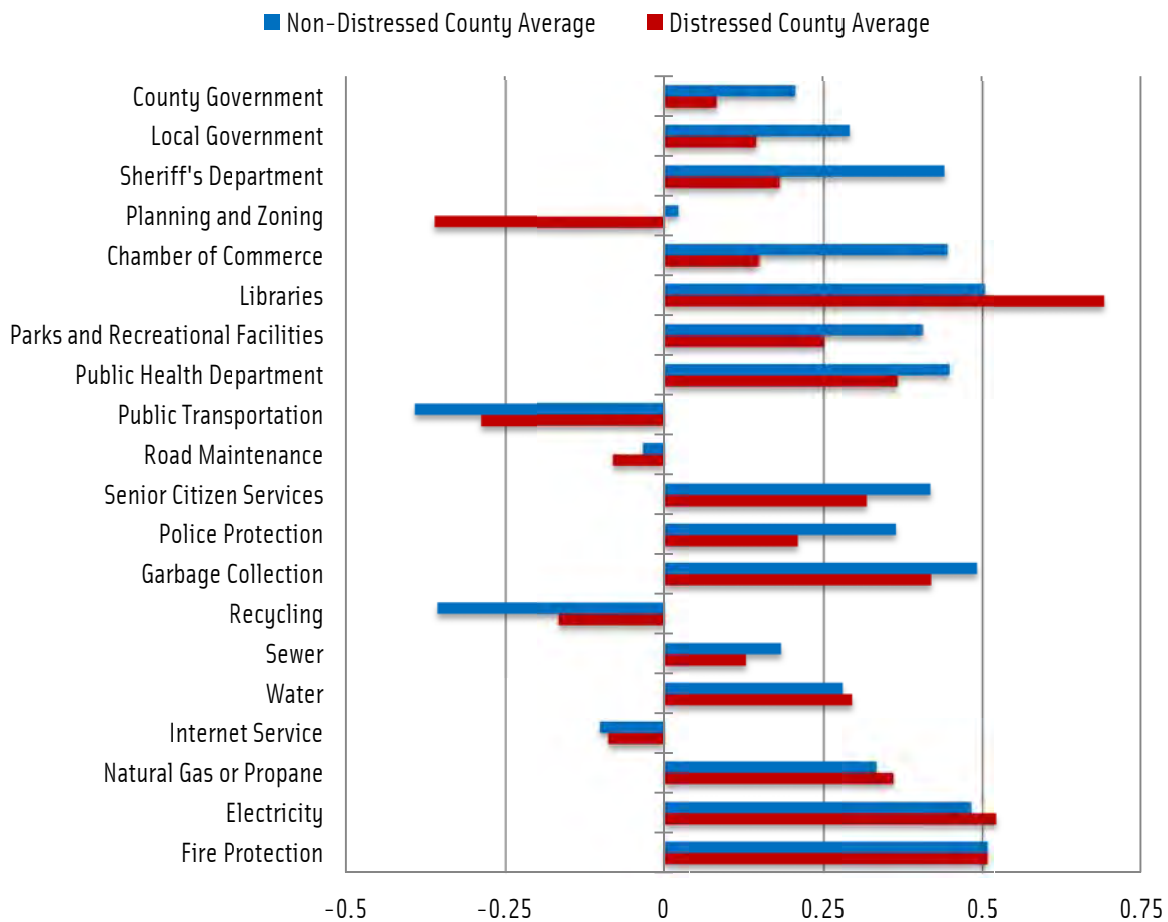
Small counties, or counties with few residents, such as Calhoun County, WV, often struggle to maintain public services. They also face the aforementioned issues related to representation in state government. Redundancy of services is also an issue, as states cope with large numbers of school systems and highway and sheriff's departments. Some states, such as Iowa, have constitutional limits that dictate a minimum county size. Imposing such regulations on existing states, however, would seem politically impossible.

A more realistic approach is the establishment of shared services among multiple counties. Avery County, NC, for example, shares library and other services with neighboring small counties. Calhoun County, WV, shares its economic and community development services with neighboring Wirt County through the Little Kanawha Area Development Corporation. These shared services, applied on a broader scale, could result in significant savings for some counties and might bring improved services to rural areas.

5.13 Planning and Zoning

Planning, or the lack thereof, emerged as an important issue in many project communities. The lack of planning was especially evident in distressed communities. Less than 1% of survey respondents from distressed counties classified local planning and zoning as excellent and only 27% found it to be adequate. In contrast, almost 7% of respondents from non-distressed communities felt local planning was excellent and 49% found it to be adequate. As Figure 5-10 shows, Planning and Zoning rated poorest out of all public services in the distressed counties.

Figure 5-10: Responses to the question, "Rate the performance of public services in your county."
 (Scoring: Poor=-1, Inadequate=-.5, Adequate=.5, Excellent=1)



Among individual counties, capacity clearly plays a role in promoting good planning. Larger and more affluent counties, such as Lawrence County, AL, and Avery County, NC, tended to score higher. Pike County, KY, the most populous and largest county in the study, received the highest ratings for planning and zoning, with two-thirds of respondents ranking local efforts as adequate or excellent. Poorer counties, on the other hand, fared much worse. In Calhoun County, WV, for example, 62.5% of survey participants rated planning as poor.

Impacts resulting from the lack of planning are varied but significant. Bell County, KY, for example, needs improved zoning to improve the gateway to the Cumberland Gap National Park. Likewise, land-use controls could help Pendleton County, WV, protect important viewsheds, the historic downtown, and other tourism resources. Many communities also lack effective comprehensive plans. As a result, these communities often lack a cohesive strategy for future development and, instead, approach the future in an ad hoc fashion. This deficiency stands in the way of their preparedness for applying for much-needed funding and moreover simply slows local progress.

In other cases, counties had *pro forma* plans developed for specific grant applications. In some cases, these plans were little more than boilerplate documents, with little or no community input. Some communities also have plans developed by external consultants or academics. Many times these plans were developed at considerable expense with limited community or stakeholder participation. While these plans have value, they sometimes lack implementation strategies or any follow-up funding to sustain prolonged efforts. As a result, the plans soon wound up on a shelf, collecting dust alongside previous plans and studies.

Not surprisingly, many residents in these communities now view planning as a pointless and futile exercise. In some communities, officials and key stakeholders consider plans to be a waste of money or a bureaucratic folly. Academics or external resource providers may be seen as opportunistic interlopers out to take advantage of the community to promote their own interests. This “planning fatigue” is a major barrier to future coordinated development efforts in some communities, but is preventable if planning is inclusive and linked to some form of actionable implementation.

5.14 Local Development Districts

As mentioned several times throughout this report, Local Development Districts (LDDs) play an important role in the planning and proposal development process. These agencies, created to provide important community and economic development services, are intended to help level the playing field for rural communities. Small rural counties that lack dedicated grant development staff rely on these organizations to help plan and implement important projects.

Additionally, the ARC relies heavily on the LDD network to serve as middlemen between their Washington staff and the region’s communities. Ideally, LDDs help convey information about ARC programs to Appalachian communities and, in return, help keep ARC staff informed of progress and developments in communities throughout the region.

In practice, however, the performance of the LDD system appears uneven. Many communities in this study, such as those in Kentucky and Tennessee, reported a strong working relationship with their LDDs. In these communities the LDD system appears to work as intended, with the LDD serving as both an advocate and partner for counties and municipalities, facilitating the exchange of information through bureaucratic layers.

In other areas, however, relations between the county and local LDDs appear to be less productive. The politicization of development districts was a voiced complaint in some areas, where leaders felt marginalized when compared to their larger or more influential neighboring counties. Inconsistent services

were another important issue. Although most LDDs made proposal development a priority, others viewed funding opportunities as a secondary function. Lawrence County, AL, officials even noted a LDD director who refused to prepare any proposals on the grounds that it might place his partner communities in competition with one another.

In addition to these problems, many communities felt that their LDD staffs are increasingly overwhelmed. These sentiments were expressed among a wide range of study counties, regardless of economic status or the quality of the LDD relationship. As funding constraints increase and state resources diminish, it is likely that LDDs will face increased pressures and workloads. These factors may further impact the efficacy of the existing LDD system.

5.15 Grant Development

The lack of planning and strained Local Development District (LDD) relationships were both cited as significant barriers to grant funding by community stakeholders. Counties without current comprehensive plans often find they are ineligible for funding opportunities or, at the very least, compete at a significant disadvantage. Poor LDD relations or a lack of communication compound these issues. Many times local officials have no knowledge of funding opportunities. In other cases, they receive little LDD assistance in developing a proposal or are perceived as a low priority among LDD communities. LDD staff, operating with limited resources, might also find themselves unable to respond to all requests for assistance. As a result, many low-resource communities are left to fend for themselves in a very competitive funding environment.

Matching funds pose another significant challenge. While relatively affluent counties such as Avery County, NC, or Lawrence County, AL, can usually muster matching resources, smaller or poorer counties face significant problems securing matching funds. Many times, counties with modest tax revenues simply do not have the funds to put together a cash match and may have difficulty finding in-kind resources.

Calhoun County, WV, is representative of these types of communities. Nearly bankrupt, the county has just 13 employees and an annual budget of only \$1.3 million. This level of funding is barely adequate to cover services for county with over 7,000 residents and an area of almost 300 square miles. Struggling to provide even basic services, the county is in no position to provide matching funds. With few county employees, low salaries, and few public resources, an in-kind match is also difficult to attain.

These issues are compounded by other barriers, including poor Internet access and a lack of local capacity. Routine funding tasks, such as online proposal submissions, can prove daunting without the assistance of an LDD, academic institution, or other partner. Isolated or low-resource communities must overcome multiple hurdles to accomplish such a task. In addition to securing a match and preparing a proposal, they may also have to complete multiple forms, convert and merge documents into uploadable files, create detailed budgets, and prove they have the capacity to administer a funded project. The inability to fully accomplish these tasks leaves some communities noncompetitive when pitted against more affluent counties and municipalities.

5.16 The Appalachian Regional Commission

Local perceptions of the ARC are mixed. All counties expressed appreciation for the agency's contributions to the region and for assistance they had received. Even Calhoun County, WV, perhaps the most distressed county in this study, noted that conditions had improved significantly from the days of "subsistence poverty."

Several counties, however, expressed frustration with ARC policies. Some officials of distressed counties, while noting ARC's accomplishments, argued that ARC policies favor larger or more developed counties. Economic development policies, they contend, favor existing employment centers and commercial hubs over rural and isolated areas. Many also point to matching requirements, which they feel discriminate against distressed areas by essentially precluding them from even applying for grants. Many feel that the distribution of ARC funds, particularly state allocations, is based more on political considerations than actual need.

Many counties, even non-distressed areas, referenced the disconnect between the ARC's Washington office and the region it serves. Some officials believe that ARC staff lack awareness of the region, particularly the poorer and more isolated areas. When asked, few county officials could recall a visit from an ARC official.

General understanding of ARC's programs and resources was also surprisingly low. Many residents and even public officials showed little knowledge of the agency, its history, and its programs. While a fair number of focus group participants, for example, had visited the agency's website or knew how to access grant opportunities, few were aware of ARC's recent "Gems of Appalachia" grant program. Not surprisingly, communities with good LDD relationships or strong academic partnerships generally demonstrated a greater awareness of such funding opportunities.

To their credit, ARC has embraced social media to improve communications. Recently, for example, the agency launched a Facebook page. This effort should help ARC distribute news and announcements to a wider audience and is commendable. This project's effectiveness throughout the region, however, is dependent on the availability and quality of local Internet access and the technical capacity of the local intended audience to opt-in to such communications.

Study participants throughout the region also had low awareness of ARC research reports and other materials. Some communities, in fact, feel they lack information about their own community and its performance. These problems are compounded in some areas by the lack of adequate Internet access. Residents that still rely on dial-up services have difficulty downloading large files and those without access face even more difficulties. During site visits, project team members received numerous requests for hard copies of project materials from key stakeholders who lacked email or Internet access.

The ARC is also becoming increasingly dependent on web-based tools in decision making and agency-wide planning processes. Advances in information and communication tools creates new opportunities, but also presents new challenges. In 2010, for example, the agency conducted a strategic planning process that collected "citizen input" from a series of five subregional public forums or "listening sessions," online "webinars," and through "electronic polling and online comments on key issues facing the region." This

process, intended to “accommodate all participants from the general public in Appalachia,” was, no doubt, efficient and cost effective. However, the process relied heavily on widespread Internet access and adequate digital literacy skills. In many areas of Appalachia, however, computer skills and digital infrastructure are lacking. This is especially true for the region's poorest and most isolated communities.

As such, residents of these communities risk being disenfranchised from decision-making processes. It is no surprise that residents of these communities - places like Calhoun County, WV - feel a sense of detachment from the ARC's Washington offices. In fact, the design of that process and the language used to present it may reinforce the perception, common in some areas, that the agency is sometimes insulated from some regional realities. To fulfill their mission, ARC must recognize this digital divide, account for it in their processes and programs, and increase efforts to help communities of Appalachia overcome this critical community infrastructure deficiency.

5.17 Welfare Dependency

While residents and officials express some frustration with the ARC, they view federal welfare policies with near universal contempt. Welfare abuse is rampant across the region and adversely impacts both the economy and the character of Appalachian communities. The percentage of residents receiving SSI income, for example, is above the national average in nine of the ten study counties. In some counties it is three or four times the national average.

The road into Pikeville, KY, demonstrates how welfare has evolved from an intended temporary lifeline into an industry of subsistence. The highway is lined with billboards that draws attention to the U.S. Social Security Administration's Supplemental Security Income (SSI) and promotes lawyers who can help qualify people for disability payments. For many families welfare has become a valid career choice. Local leaders report that achieving disability status is a rite of passage in some families and that parents routinely strive to have their children classified as disabled.

The conditions are common across most of the region. Only Avery County, NC, with its relatively affluent and educated population, can claim an SSI rate below the national average. In some cases, these inflated rates represent genuine disabilities and reflect the difficult nature of Appalachian coal mining and other traditional pursuits. For the most part, however, these rates are the product of a broken entitlement system that invites abuse and rewards dependence.

However, one must realize that the problems associated with welfare abuse are not confined to Appalachia and many solutions will be national in scope. Recent events are encouraging, however, and suggest that federal officials are addressing some of the most blatant forms of abuse. Long-term reforms are much needed, and must include strict and enforceable standards, limits for many recipients, and transitional assistance for families seeking independence.¹²⁴

¹²⁴ In May 2011 federal officials began an investigation of Judge David B. Daugherty, an administrative law judge in Huntington, WV, charged with reviewing SSI disability appeals. In the first half of 2011, Daugherty approved all 729 SSI appeal

5.18 Health Care

Health care services serve two vital roles in Appalachian communities. First and foremost, they provide essential care to residents. Additionally, these facilities serve a vital economic function. In isolated and economically distressed communities, local health care facilities are often one of the largest employers and, along with local schools, comprise the backbone of the local economy.

Most communities in this study have managed to maintain local health care access, often through determination and innovative business models. For example, Pendleton County's (WV) sliding scale clinic ranks among the most innovative and transferrable approaches to health care in this study. The clinic provides affordable health maintenance and preventive services to the rural community and even provides dental care. The clinic's impact is impressive. Pendleton County boasted some of the highest public health statistics in this study, despite being quite isolated and with no local hospital.

Such determined leadership and resourcefulness also helped Calhoun County's (WV) Minnie Hamilton Health Care Center open. While struggling to create a financially viable institution and recruit and retain qualified doctors, this center, like others in the region, is heavily dependent on government funds and faces an uncertain future. Proposed cuts and proposed national healthcare reforms could threaten rural healthcare facilities, leading to increased hardship, job loss, and declining public health.

Public health is a major issue in almost all study counties. Obesity, diabetes and heart disease are the top health concerns. Many of these diseases are tied to food and nutrition issues. Access to fresh food is a concern in some areas, such as Calhoun County, WV, but is being addressed in other communities. Morgan County, OH, and Johnson County, TN, are leaders in this respect. Johnson County's farmers' market not only creates new revenue sources for local producers, it also provides fresh food access for low-income consumers. Likewise, Morgan County's Chesterhill Produce Auction, developed with Ohio University, promotes economic development while improving access to local healthy foods.

Sexual health is also a serious concern. More than half of survey respondents reported teen pregnancy to be a frequent occurrence and another 40% state it happens sometimes. The problem is more pronounced in economically distressed areas, where 63% of survey participants found it to be a frequent occurrence. In non-distressed counties, in contrast, 40% of respondents reported frequent teen pregnancies.

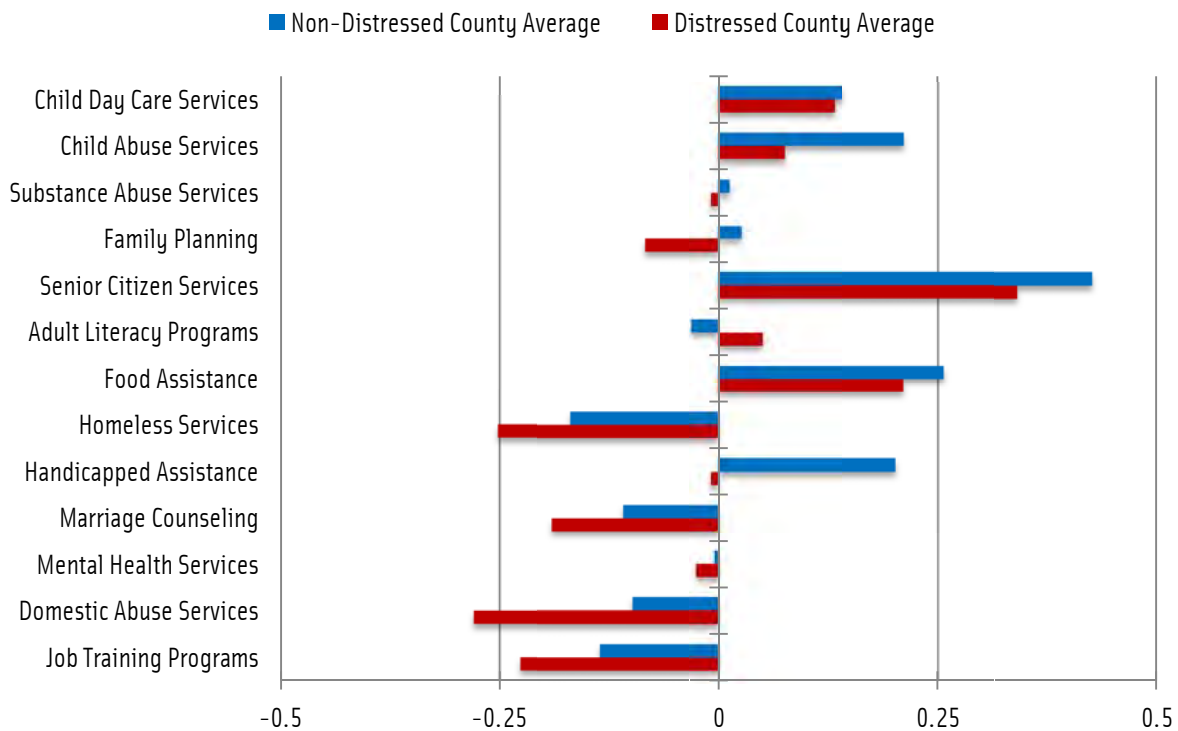
Substance abuse remains the biggest health concern and, along with job creation, is among the most pressing concerns in the region. An alarming 71% of survey participants identified substance abuse as a frequent problem in their community. The problem is common among both distressed and non-distressed counties, with the differences between them a negligible three percentage points.

applications brought before him and approved all but 4 cases brought before him in 2010. Daugherty also reviewed a disproportionate number of cases brought forth by Eric C. Conn, a flamboyant SSI attorney from Pike County, KY. Damian Paletta, "Disability Judge Put on Leave From Post," Wall Street Journal, May 27, 2011.

While street drugs remain a problem, abuse of prescription drugs appears to be the biggest problem. Leaders of project communities offered several explanations for the rise of this addiction. The availability of pain management drugs within families, over prescription by physicians, aggressive marketing by drug companies, and so-called Florida "pain clinics" were all cited as contributing factors. Cultural factors also play a role, including a persistent belief that legal, prescribed drugs cannot be addictive or harmful.

The impact of this addiction on the region's families and children is incalculable. The issue poses dire problems for Appalachian communities. County and local governments struggle to prosecute and incarcerate drug-related violators. The clean-up of meth lab sites is often a major expense to law enforcement, as are related costs, such as increased social services and health care expenditures. Such expenses draw resources away from other important areas, such as community development, road maintenance or education. Substance abuse is also a significant barrier to economic development, and it helps perpetuate negative perceptions associated with Appalachian communities. It also creates genuine problems among the local workforce, with one survey participant commenting that it is "very hard to find workers that are drug free."

Figure 5-11: Responses to the question, "Rate the performance of social services in your county."
 (Scoring: Poor=-1; Inadequate=-.5; Adequate=.5; Excellent=1)



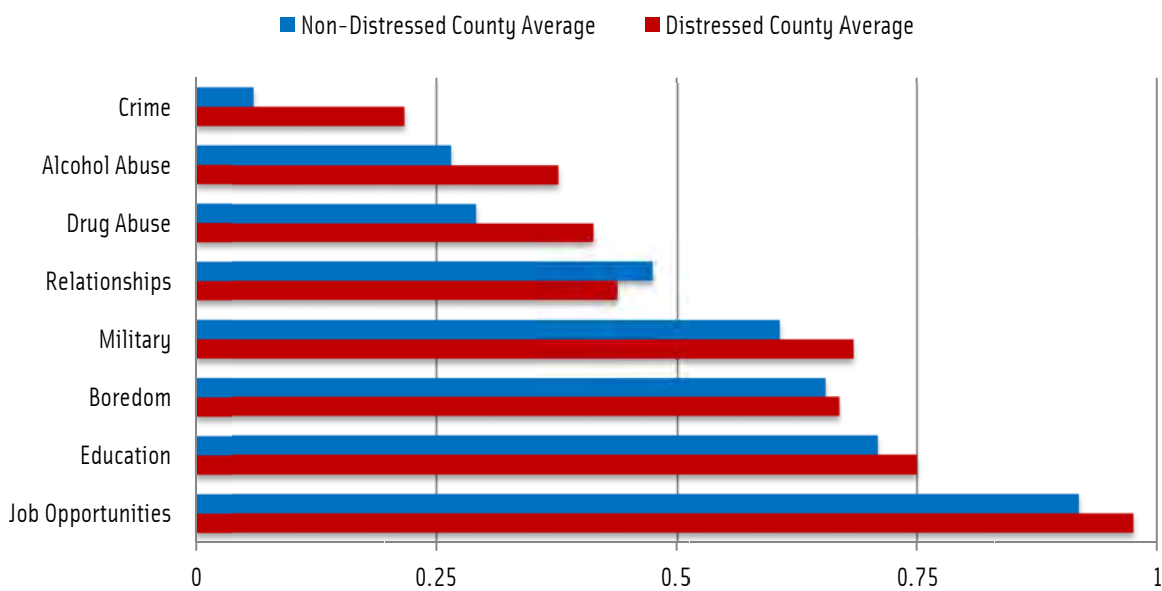
While problems are widespread, solutions seem to be elusive. Most leaders agree, however, that addiction treatment is preferable and more cost effective than the prosecution of offenders. The ability to provide treatment, however, is highly constrained by limited resources. Alternative sentencing, through special drug courts, is an important component of the rehabilitation process. This approach, as seen in Bell County, KY, should be replicated by other communities in the region.

5.19 Education

There is a strong correlation between educational attainment and a county's economic performance. Communities with good schools and high levels of attainment almost always perform better than those with lower-achieving educational systems. Of course, better performing counties can usually afford better school systems and generally attract residents with higher levels of attainment. The result is a "chicken and egg" scenario that plays out across the region and places the poorest counties at a significant competitive disadvantage.

Morgan County, OH, proved to be a notable exception to this trend. Though distressed, the county boasts some of the highest achievement and attainment statistics in this study. By embracing educational attainment as a key development strategy, the county has demonstrated significant leadership and has created a model for other distressed communities. Local leaders believe that promoting education creates a fertile environment for economic growth and will, in time, lead to local and sustained development.

Figure 5-12: Responses to the survey question, "How likely is each a factor in explaining why young adults may decide to leave your county?" (Very Unlikely=-2, Unlikely=-1, Unsure =0, Likely=1, Very Likely=2)



Morgan County is not alone, however, in improving local education levels. All ten study counties have, in fact, shown dramatic improvements in educational attainment over the past twenty years. Johnson County, TN, and Lawrence County, AL, for example, have each increased their percentage of residents with a high school diploma by about 20 percentage points. Yet, despite these improvements, these counties have not, for the most part, kept pace with improvements at the national level. Half of the study counties lag behind the 1990 national averages in terms of residents holding high school diplomas.

A number of factors have help prompt improvement in educational attainment. State policies play an important role. Laws that require a diploma in order to obtain a full driver's license, such as those in Tennessee, have played an important role in keeping youth in school. Equalization of school funding between urban and rural districts has also had a significant impact, allowing systems to decrease class sizes

and upgrade classroom facilities. Avery County's (NC) policy of placing suspended students in local workplaces is a creative and effective tool for combating truancy and expulsion.

Increasing work standards, such as those in the coal industry, also play an incentive in keeping youth in school. Few employers are now willing to hire workers without a diploma, and those who have not completed high school operate in such industries at a distinct disadvantage. Demographic factors also contribute to improving statistics, as older, poorly educated residents, whose matriculation predates mandatory school attendance laws, are now moving out of the workforce.

Perhaps the most troubling educational trend is the persistence of a de facto school segregation system in Mississippi. This anachronistic practice may discourage support for public schools and creates an atmosphere that discourages outside investment. These problems are exasperated by a significant Mennonite population who, citing religious objections, do not complete high school, many leaving school after the eighth grade. This approach, which appears to exist in other Mississippi counties as well, is detrimental to county attainment statistics and undermines any credible development strategy. It also helps explain the growing contrast between Alabama and Mississippi counties and why Mississippi, despite infrastructure investments, continues to lag behind other states in the region.

While high school graduation rates have improved throughout the region, attainment of college degrees remains well below national average. No county in this study met the national average for the percentage of college graduates, and all but one failed to even meet the nation's 1990 average. In part, this is due to the lack of opportunities for college graduates in many rural areas. With fewer opportunities, it is not surprising the case study communities do not attract or retain degreed residents.

Other factors contribute to this lack of attainment. Attachment to family, fear of leaving home, and a devaluation of education are cultural factors that deter youth from leaving home to attend college. Residents of many communities also report that students are often simply unprepared for college. This lack of preparedness is not just academic. In many cases students excel academically, but cannot adapt to the diverse and competitive culture found in many colleges and universities. High-achieving students could benefit from improved pre-college preparations, including transitional or mentoring programs.

Perhaps more encouraging is the rise of Associate degree holders. In many study counties, the percentage of residents holding Associates degrees has doubled since 1990 and community colleges have emerged as important workforce development institutions. While this growth is substantial, even more may be needed. Job training programs were identified by survey participants as the service most in need of improvement and over 80% of respondents found it to be a "very likely" or "somewhat likely" barrier to growth.

Beyond educating residents, academic institutions also play a vital role as community partners. Throughout this study, there was a high correlation between communities with academic partnerships and local success. In many cases, academic partners are a driving force in promoting and implementing local development efforts. While large public intuitions are important, it is also clear that small local institutions play a critical role. Pikeville University, in Pikeville, KY, and Waynesburg University, in Waynesburg, PA, for example, serve as community leaders in addressing important local needs.

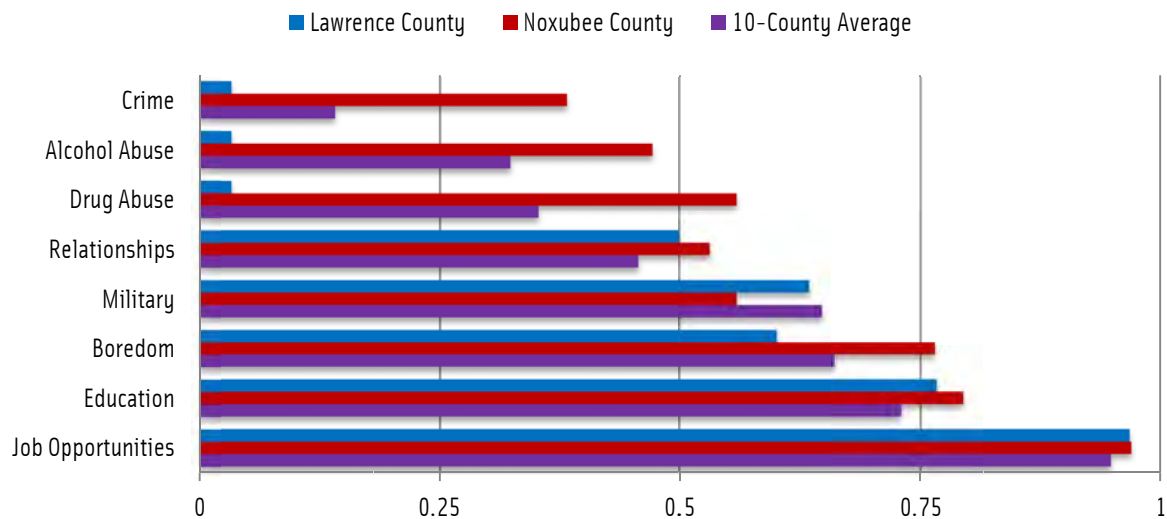
Local university extension services provide an important link between large research institutions and these Appalachian communities. Extension personnel find themselves in the unique position of being both overworked and underutilized. Chronically underfunded, extension personnel manage to perform a wide range of tasks to assist rural communities. In addition to agricultural assistance, they also promote nutrition, public health, and educational reform. They lack the funding and staff, however, to conduct many other needed tasks. Many are frustrated, for example, that they cannot play a larger role in community planning or large-scale development efforts. More could and should be done to leverage this network and take advantage of this local source of knowledge and expertise.

For many counties, advancements in educational attainment bring risks and benefits. Outmigration and the so-called “brain drain” are very real consequences of individual achievement. While some opportunities exist for college graduates in education and health care, others realize few prospects in their home county and must find employment elsewhere. The loss of these residents, often referred to as “the best and brightest,” has an important economic and psychological impact on the community. This outmigration robs the community of emerging leaders. At the same time, however, these concerns must be weighed against the fact that, while these young people do leave their home communities, they do find good jobs elsewhere, pay taxes, and raise families free from the welfare system or other publicly supported costs.

Of course, young people leave their home communities for reasons beyond work or education. While survey participants cited jobs as the main source of outmigration, military service, boredom, personal relationships, and substance abuse were also identified as contributing factors.

Significant outliers with this issue come from South subregion counties. As illustrated in Figure 5-13, Noxubee County, MS, listed crime and substance abuse issues as likely reasons for youth leaving their county, while its cohort, Lawrence County, AL, responded that crime and substance abuse were the least likely reasons. Each was well above and below, respectively, the study average.

Figure 5-13: Noxubee and Lawrence County responses to why young adults might decide to leave their county. (Not Likely=-5, Unsure=0, Likely=.5, Very Likely=1)



Local stakeholders and focus group participants were particularly adamant about the lack of recreational opportunities for young people. Survey participants agreed, with more than half finding youth programs to be inadequate or poor. Programs in distressed counties were rated considerably worse than those in non-distressed areas.

Sports are an important activity for many youth and play a significant role in the community. Residents of several communities, however, bemoaned the lack of non-sports activities for local youth. In many communities, youth have little to do except "cruise" around town or gather in parking lots. This lack of recreational activities not only contributes to outmigration, it also encourages substance abuse, vandalism, and truancy. A lack of resources, however, prevents many communities from developing youth programs.

Perhaps the best success story of youth retention in this study is in Pendleton County, WV. There, local service clubs that shared concerns about the dearth of recreational activities, banded together to construct a community bowling alley – a facility that is now a popular family destination. The effort is not only a case study in public recreation, but also a prime example of grassroots community leadership in action.

5.20 Social Capital

While the community survey was mostly designed to assess local capacities, services and economic activities, it also included questions to help evaluate social capital. Social capital is defined as "the norms and social relations embedded in the social structure of societies that enable people to coordinate action to achieve desired goals."¹²⁵ Simply put, social capital is the glue that binds communities together. Social capital is found in community groups, organizations, and efforts towards developing common goals.

Survey questions measured levels of community trust and cooperation, and assessed the strength of community institutions, such as churches and civic groups. As seen in Figure 5-14, results varied somewhat between subregions and according to economic status. In general, distressed counties in this study exhibited similar levels of social capital than non-distressed counties, with responses to each question within negligible range of each other. The only item in Figure 5-14 with a wider range of discrepancy than all the others could be explained as an indication of the distressed counties' overall lack of broadband infrastructure and usage rather than an actual indication of social capital.

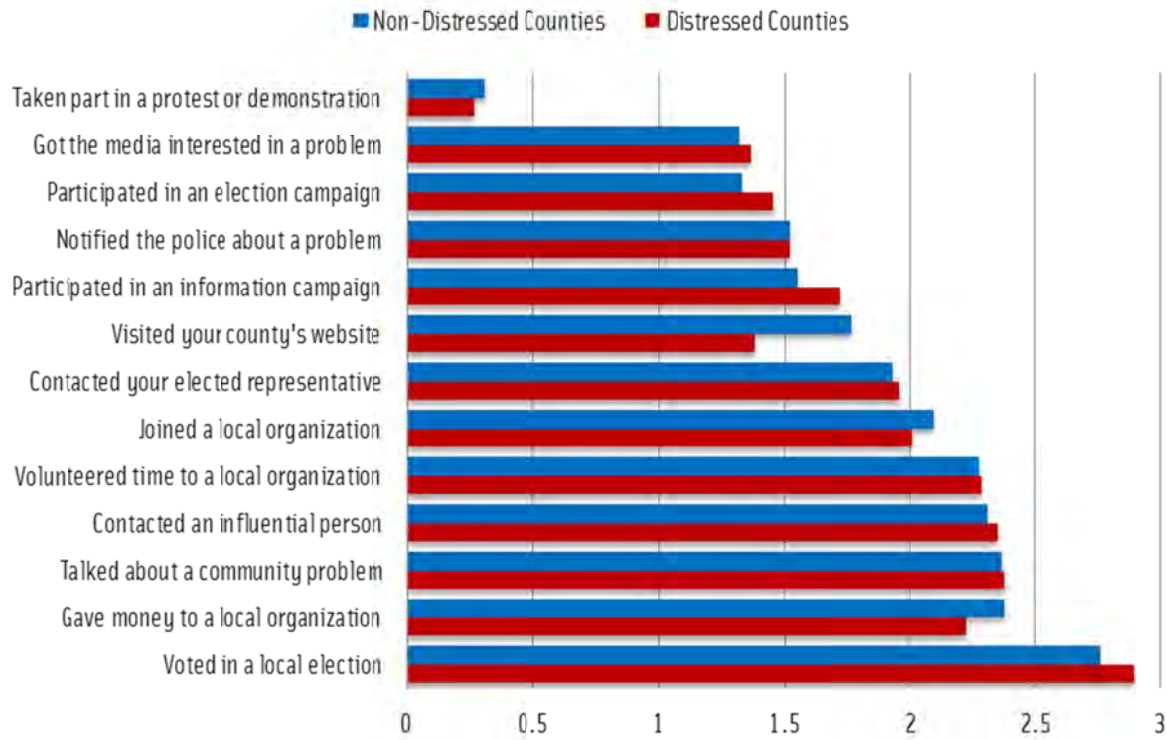
Most survey results are as one might expect, indicate the nature of rural lifestyles, perhaps reflective of the ability of local governments to fund various initiatives, such as animal shelters, and residents being able to support local arts groups, or having enough local demand for business cooperatives. Rural residents responded highest to local election participation, and reported high rates of volunteerism and support to community organizations.

Residents of non-distressed counties also exhibited more community pride. In general, however, most participants expressed some level of pride and satisfaction in their community. However, one standout was

¹²⁵ Christiaan. Grootaert, "Social Capital: the Missing Link?" *Social Capital Initiative, Working Paper No. 3, World Bank, 1998.*

Noxubee County, MS, where no survey participants agreed strongly that they were proud and satisfied with their community and nearly 30% of participants expressed some level of disagreement with that statement.

Figure 5-14: Survey responses to the question, "In the last three years, how often did you do the following community activities?" (0=Never, 1=Rarely, 2=Sometimes, 3=Frequently)



5.21 County Data and Assessment

Based on the results of this study, it is clear that econometric or quantitative data alone are insufficient in understanding the true economic landscape of Appalachia. Such data would tell us nothing of the anachronisms of Noxubee County, MS, the achievements of Morgan County, OH, or the isolation of Calhoun County, WV. Therefore, it is important that future evaluation of counties should include a broader range of indicators, including those related to education and public health. Likewise, discussions with a broad range of stakeholders proved beneficial. In some cases, residents contradicted statements made by public officials, while in other cases they contributed additional information that proved necessary to fully understand local conditions.

Residents and leaders from several counties also expressed a desire for more data about their respective counties. Many seemed surprised to see project statistics during site visits and expressed interest in more information, including basic demographic data. They also found comparisons with other Appalachian counties very helpful.

ARC's County Economic Status Classification System¹²⁶ proved confusing and controversial among many local stakeholders. Residents of many non-distressed counties felt the system did not accurately account for local conditions or the cost of living. Some could not understand how their county could not be considered distressed. Residents of distressed counties, in contrast, sometimes felt the classification served as an additional stigma attached to their community and had a demoralizing affect. While they were grateful for additional assistance, they were troubled at being singled out as a red county on a map.

In fact, the economic status classification system is a significant ARC initiative. This program succeeds in channeling resources and attention to the region's hardest-hit counties and helps the agency identify funding priorities. The five county status designations (distressed, at risk, transitional, competitive, and attainment) effectively demonstrate progress and success in the region. Yet, along with these benefits, these designations can also create problems at the local or regional level.

Likewise, non-distressed designations can create a false sense of security or success. This is especially true of "transitional" counties. All too often, transitional is seen as a sign of attainment. In reality, however, transitional status is often quite tenuous and counties struggle to not transition back to distress. Residents of Pendleton County, WV, for example, expressed surprise they were not distressed and felt the transitional title belied their genuine status.

The designations also mask important distinctions among distressed counties. For some counties, such as Morgan County, OH, distress seems to be temporary. These communities, while certainly experiencing hardship, do not look nor feel like areas in deep distress. Other perennially distressed communities, however, demonstrate deep levels of privation. The region's poorest areas, places like Calhoun County, WV, appear to be a world removed from the rest of the region and perhaps deserve additional recognition.

5.22 Industry Clusters Strategies and Economic Growth

In this study we broadly defined industry clusters as a group of businesses involved in the provision of raw materials, the production of intermediate goods and services, and the distribution of final products to consumer or other economic sectors. Thus, a task for local planners and policy makers is to determine how their counties are positioned to withstand challenging economic times in terms of sustained job growth, business retention or expansion, and real income or job earnings growth given the presence of certain industries. Some industries may positively contribute to local economic growth, but in other instances the presence of a given sector may be a draw on limited resources that could slow growth.

Take, for example, the recent natural gas boom in Appalachia. What may be difficult for local residents to understand is that while expectations of extraordinary revenues from natural gas extraction may continue in the short to medium-run, these "boom times" are rarely permanent. While unlikely in the near future, declines in the real price of energy could occur for a variety of reasons, leaving counties that have directed limited resources towards developing their natural gas resources, they may become at-risk in terms of

¹²⁶ <http://www.arc.gov/research/SourceandMethodologyCountyEconomicStatusFY2007FY2012.asp>

competitiveness in other basic economic sectors. Natural gas is also a non-renewable resource; when the marginal value of extraction is greater than the market price, extraction companies may relocate operations outside the county. This scenario is a classic example of "Dutch Disease," so-named by Corden and Neary,¹²⁷ as they describe the de-industrialization of the Netherlands following the deflation of a natural gas boom in that country.

This sequence of events is not new to Appalachia, as declining communities once dependent on logging, mining, or other extractive industries are typical throughout Appalachia, and neither are the steps communities can take to decrease the odds of spiraling into these types of non-renewable resource traps. As the construction of new hotels and the expansion of business support services expand in the wake of local efforts to develop extraction sector, counties prospering from the boom should also focus on developing local human and social capacity to position the community for a future when the excitement over the resource deposits has waned. Developing these so-called "soft" assets could provide individuals with the skills to increase their competitiveness in the absence of the boom and potentially increase the attractiveness of the community from the perspective of outside investment opportunities.

In our regression analysis, rural counties with both higher proportions of creative capital and richer entrepreneurial contexts (as measured by either the rate of self-employment or the number establishments per job) typically enjoy faster business establishment and job growth, and the beneficial effects of this synergy tends to increase with the prevalence of local outdoor amenities. And, while limited in scope in terms of the time period analyzed, the secondary data analysis of industry clustering shows some potential for certain economic sectors of the region (Appendix 7.5.2, for a detailed summary).

The growth potential stemming from the clusters analyzed in this study appear to be associated with high-tech sectors or involved in the production of intermediate goods. While this may be encouraging for counties with established economic bases suitable for attracting and retaining businesses which make up these sectors, caution should be used by local leaders in terms of picking "winner industries" in the hopes of becoming competitive with neighboring counties who have been successful in attracting businesses.

As with any clustered developed strategy, careful measurement of the local assets communities have in place must be put in perspective in terms of social and human capital, geography, and even local history. Without precedence for attracting certain industries, the odds of doing so in the future may be lower without the necessary infrastructure, talent, or connections to other economic centers of influence.

5.23 Conclusion

It is tempting to believe that there is a secret formula to economic recovery. All too often, even among development professionals, there is a herd mentality when it comes to development strategies. One county's success with a development approach is soon regarded as a universal best practice, as if every

¹²⁷ Corden W.M., Neary J.P. (1982). "Booming Sector and De-industrialization in a Small Open Economy." *The Economic Journal* 92 (December): 829-831.

county could be saved with the addition of a new road, an industrial park, an airport, a museum, a new road, a heritage tour, a new golf course, or whatever else that happened to have worked elsewhere in the past.

In reality, however, the development process is rarely this simple. As this study shows, all counties are unique and face complex obstacles and issues. This uniqueness and complexity undermines cookie-cutter solutions and makes silver-bullet strategies inherently implausible. In many cases, the distinctions between distressed and non-distressed counties are relatively minor. While deliberate strategies play an important role in the development process, successful counties often benefit from location and local resources, along with a little luck. Therefore, understanding local resources and assets is key to developing individualized development plans to grow local jobs and attract good employers.

In the end, people make the difference. Good leaders, good schools, and a skilled and healthy workforce are among the most important resources a community can hold. Even a small group of committed and wise residents can have a lasting impact on local development. Morgan County, OH, and Pendleton Counties, WV, for example, both are being energized and revitalized through the efforts of modest local organizations. Investments in people through things like better schools, leadership programs, modern technology tools, job training and other human development efforts are thus a vital element in any development strategy.

Although the ten counties in this study are quite diverse, the comparison of these Appalachian communities indicates a number of important trends that either promote or hinder economic growth. Among these common trends are the following:

- Extensive economic progress has been made in Appalachia. The region today is a world removed from the one Lyndon Johnson visited in 1964. Access and living standards are markedly improved, even in the poorest regions. Leaders of all ten counties acknowledge ARC's role in this progress, particularly the agency's contributions to road and infrastructure improvements.
- While traditional infrastructure has improved significantly, the region's digital infrastructure is a significant obstacle for many communities. Improvements in Internet access are necessary to promote economic growth. At the same time, they are also needed to reduce feelings of isolation and to ensure full participation in regional and national dialogs.
- Leadership plays a critical role in community success. Identification and development of new leaders is clearly a high priority for the region. It is also clear that, while leaders are important, it does not take a large number of them to have an impact. This report has shown examples in which a small but dedicated group of dedicated and well-informed residents can have a significant impact on a community's development.
- ARC projects and policies have had a significant impact on the economy of the region, particularly at the subregional or multi-county level. The impact of the agency's development strategies at the local level, however, is less clear. Many local development strategies are home-grown efforts, created without ARC support and maintained with local resources on a shoestring budget. Modest levels of assistance to help support these efforts could yield favorable results.

- Location plays a significant role in the development of a community and is an important factor in regional development strategies. These approaches, however, appear to be predicated on an assumption of affordable transportation. Rising fuels costs and flat wages threaten to undermine these strategies and may further increase unemployment and outmigration.
- Persistent cultural traits continue to serve as a barrier in many areas. Aversion to risk, fear of failure, and willful isolation serve to deter entrepreneurship and investment. Racism and antiquated racial divisions perpetuate an image of backwardness and help undermine significant investments in infrastructure.
- Many counties have benefitted from good planning and well developed and coordinated development strategies. Avery County's (NC) tourism strategy, Morgan County's (OH) knowledge-based approach, or Pike County's (KY) energy initiatives are examples of these plans. As often as not, however, counties move forward with no comprehensive strategy in place. While small piecemeal strategies are implemented, growth is often due more to luck than any intentional design. For many counties, the lesson is to discover gas reserves, get a military base, build a prison, or have rockets built in the next county over.
- Academic partnerships appear to be a common thread amongst well-performing counties. Communities with strong academic partners enjoy significant benefits and operate at a tremendous competitive advantage. Colleges and universities provide affordable expertise, legitimacy, and energetic and inexpensive student assistance. More should be done to encourage and promote such partnerships.
- There is no level playing field for the region's poorest and most isolated counties. Mechanisms designed to assist these counties, such as Local Development Districts, are inconsistent in the quality and breadth of their services. While most LDDs provide invaluable services, some appear to be remote or disengaged. These counties are further hampered by their lack of political clout, inadequate local technical capacity, and an inability to raise matching funds. The reality is clear - communities with resources continue to get resources; those without often do not.
- Coal continues to cast a heavy shadow over the entire region and dominates both the economy and the culture of the Central subregion. There, coal has been elevated from an industry to a way of life and the coal miner serves as an iconic folk hero. While this culture provides a sense of community cohesiveness, it also breeds a defensiveness that masks or suppresses many harsh realities. The future of eastern coal production is finite and these communities must prepare for the post-coal era in order to prevent an economic collapse.
- Health care is not only an important community service, it is also a major industry. In many low-resource communities health care is the second largest employer, just after the school system. The

status of this important industry is precarious and a source of major concern to local officials. Proposed reforms, funding cuts, and the inability to recruit and retain physicians and dentists threaten the stability of this essential economic sector, and lack of quality services is a detriment to growth.

- Substance abuse, welfare dependency, and racial issues continue to plague the region and serves as persistent barriers to economic progress. These issues also perpetuate negative stereotype of the region and distort the region's significant achievements. There are no simple solutions to the cultural issues. The closest thing to the proverbial "silver bullet" is education. Investments in education pay clear dividends and should be a priority throughout the region. Educational progress, however, is dependent on effective leadership, efficient administration, and the equitable distribution of resources.
- Outmigration is a regional reality and is likely to continue to plague remote and isolated areas. This sustained drain of people and resources makes it difficult, if not impossible, for these areas to grow. Advances in educational attainment and the rise of regional employment and commerce centers only serve to increase this slow exodus. Combating this trend, however, raises difficult questions. Should public resources be used to try to keep dying communities viable or should policy makers accept the reality of outmigration and attempt instead to mitigate negative consequences?

