

Progress Through Partnerships: *Shaping Our Appalachian Region*



“Thanks to our shared effort, vision, and cooperation, we are already seeing meaningful progress toward a new future for Appalachia.”

Gov. Steve Beshear



BACKPAGE of COVER

Cover Photos:

Top: SOAR Summit December 9, 2013, Pikeville, Kentucky. Over 1,700 in attendance.

Bottom Left: Governor Steve Beshear addressing the SOAR Plenary Session.

Bottom Right: Governor Steve Beshear (center), flanked by Former Governor Paul Patton (left) and 5th District Congressman Harold "Hal" Rogers (right). "A Summit within a Summit."

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Progress Through Partnerships: Shaping Our Appalachian Region

Introduction

The Appalachian Regional Commission (ARC) has been a force for progress for almost 50 years. Kentucky's Appalachian region has benefitted substantially from the agency's initiatives, programs and funding. Clearly, Appalachian Kentucky differs greatly today from the social and economic profile it projected a half-century ago. Poverty rates have declined and education attainment levels have increased. Infrastructure improvements are evident as are changes in the health care system which has made medical services more readily available. Assets that support human development are in place—and are being engaged by the region's residents.

However, Appalachian Kentucky's social and economic character continues to trail that of the state as a whole. The region's poverty rate hovers above the state rate and personal income measures lag as do education attainment rates. While some Appalachian counties have sufficient highway infrastructure to support economic development, many counties lack the infrastructure of the 21st Century: broadband, high speed internet service.

Initiating and sustaining economic advancement in Appalachian Kentucky has been a persistent challenge for the residents of the region, for leaders in local, state and federal governments and for private sector business interests. As the effort to establish economic parity between the Appalachian district and the state as a whole continues, the dynamics of regional economic activity and development remain strained. The nation is slowly emerging from an historic recession and governments at all levels strive to address the conflict between expanding needs and limited resources with which to address them. Private sector interests are reluctant to make investments in new business ventures or expand existing companies. Against this backdrop, leaders confront the challenge of positioning Appalachian Kentucky for future growth while addressing issues that stymie immediate advancements.

Appalachian Kentucky is an expansive region of contrasts. Encompassing 54 of Kentucky's 120 counties, the region generally cuts a crescent across the state, sweeping from the northeast along the Ohio and West Virginia borders, southward toward Virginia and then along the Tennessee border westward. The region touches Kentucky's cave country in the west and arcs to the northeast, passing through the southern Bluegrass Region. The county seat of its western-most county (Brownsville in Edmonson County) is closer to the Mississippi River at Hickman (about 200 miles) than it is to South Williamson in Pike County (roughly 305 miles) in the region's storied Eastern Kentucky Coalfield. Appalachian Kentucky covers about 18,200 square miles; that's 46% of Kentucky's total land area.¹ However, even though the region encompasses almost one-half of the state, Appalachian Kentucky is a relatively sparsely populated area. Only five of the 54 Appalachian Kentucky counties have a population density that meets or exceeds the state's density of 110 people per square mile.²

As Appalachian Kentucky cuts across diverse geographic and cultural divisions of the state, the region hosts several distinct economic characteristics. These economic drivers include agriculture, manufacturing, tourism, oil and gas production, logging and coal mining. However, while the geographic, cultural and economic landscape of Appalachian Kentucky is one of contrasts, almost all of the counties in the region are linked by a common characteristic:

restricted economic progress. Thirty-seven of the 54 counties are classified as economically distressed. Another 12 are “at risk” of becoming distressed. Only five counties are considered “transitional.”³

Governor Steven L. Beshear approaches this challenge with an overarching objective to address the region’s socioeconomic imbalance through strategies and tactics that support near-term improvements and provide the groundwork for Appalachian Kentucky’s prosperity in the future. Governor Beshear advocates a coordinated, systematic method to regional development. At the core of his approach is recognition of the strong role partnerships have in regional development. Governor Beshear has organized his Appalachian Development Plan and the policies stemming from it around the premise that partnerships will help drive progress in Appalachian Kentucky.

As has long been the case, the state’s relationship with the ARC is the foundation of Kentucky’s Appalachian development partnership. Building on the successes that have resulted from this federal-state relationship, Governor Beshear is expanding the partnership model to engage additional resources, participation and investments to support development in Appalachian Kentucky. The Governor’s approach includes encouraging more vigorous partnerships among communities in the region to focus on shared objectives, working with the Kentucky General Assembly to bolster its role in regional development activity through bipartisan legislative proposals that can benefit the region, and partnering with Congressman Harold “Hal” Rogers whose district covers most of the region.

A profoundly demonstrative example of that collaboration with Congressman Rogers is SOAR, Shaping Our Appalachian Region. The Shaping of our Appalachian Region Initiative which exemplifies this commitment to partnerships at every level of government and the private sector will serve as the core element of the Governor’s Plan for Appalachian Development. Governor Beshear and Congressman Rogers will officiate as co-chairs of the Executive Board. An overview of the application and the implementation of this SOAR focused plan will follow in the “Governor’s Plan” section of this document.

Additionally one will find chronicled in the “Governor’s Plan” section a number of very significant policy initiatives and funding announcements that accentuates the emerging viability and evolving efficacy of the work of SOAR. It is also a testimony to the strong public leadership discharged by Governor Beshear and Congressman Rogers in advancing the mission of SOAR. These initiatives address all aspects of community development including economic development, healthcare, education and infrastructure. Consider the following:

- Governor Beshear established Kynect, our implementing program under the Federal Affordable Care Act. Undaunted by political criticism the Governor moved quickly to expand Medicaid eligibility to over 300,000 Kentuckians. Of that number 132,000 are newly covered Appalachians. Another 23,000 Appalachian Kentuckians have obtained medical coverage through our Health Insurance Exchange.
- Governor Beshear and Congressman Rogers moved to create Kentucky’s Next Generation Information Highway. Supported by \$60 million in state bonds and \$40 million in federal and private resources (approximately \$17.4 million of ARC funds). A network of main truck lines will be constructed offering the highest capacity and fastest

technology available (referred to as Dark Fiber) beginning in East Kentucky. The Appalachian phase will commence in 2015.

- The extension and reconstruction of approximately 46 miles of the Mountain Parkway. The Parkway is the main transportation artery into Eastern Kentucky. The planned project will four-lane a 30 mile section of an existing two-lane highway and then extending the Parkway with a newly constructed 16 mile four-lane section terminating at Prestonsburg, Kentucky. Completion of this project will be in phases and will require an investment of \$753 million.
- The U.S. Department of Education has awarded a \$30 million “Race to the Top” grant aimed at enhancing the quality of K-12 education in 17 Eastern Kentucky school districts. The initiative will benefit 43,000 students and 2,500 educators in 14 counties.
- Governor Beshear creates KARD: Kentucky Appalachian Regional Development fund. Enacted in the 2014/16 state budget, this provision sets aside a total of \$4 million in coal severance funds allocated in increments of \$2 million in each fiscal year. The fund will be administered by the Department for Local Government and will provide for regional investment in a myriad of strategic community development opportunities.
- A \$2.6 million loan pool to spur small business start-ups and expansions. This new source of needed capital to encourage economic growth is the product of collaboration between Governor Beshear, ARC, Kentucky Highlands Corporation and the U.S. Department of Treasury. This unique program will be available in 22 Appalachian counties.
- President Obama designated eight of our most economically distressed Appalachian counties as a “Promise Zone.” This designation, one of only five in the United States, will ensure that this eight county region will receive a “special emphasis” with regard to federal grant programs and the encouragement of public/private partnerships.
- The U.S. Department of Agriculture will include 73 Kentucky counties in their “Strike Force” Initiative. Secretary Vilsack personally announced the Department’s new effort at strengthening partnerships, expanding outreach and expressing their intent to make needed investments in the targeted counties across the region.
- The Kentucky Cabinet for Economic Development has established a Kentucky Innovation Network Office in Pikeville, Kentucky. Housed on the campus of the University of Pikeville, the office will provide assistance to start-up companies and will operate the University’s Community Technology Center. The Kentucky Innovation Network program has a proven record of job creation in other areas of our Commonwealth.
- The U. S. Economic Development Administration has granted the Big Sandy Area Development District a \$300,000 grant to partner with the other Appalachian Area Development Districts (ADDs) to assist SOAR in planning and managing project development as well as project implementation. They also will be called upon to assist with technical and logistical assistance and policy analysis. The ADDs long history of

fostering community development and their established network of public officials and private sector partners will serve them well in assisting SOAR in the caring out of their mission.

Consistent throughout in the over viewing of these very significant and impressive project and funding initiatives, is the relevance of SOAR and the value of partnerships. In pursuing these partnerships, Governor Beshear is carrying forward a set of guiding principles he articulated in his first Kentucky Appalachian Development Plan. These principles acknowledge:

- Appalachian Kentucky is a unique, complex region with a historically significant culture, bountiful local assets, multiple long-term challenges and diverse economic opportunities.
- The relative success of any new initiatives in the Commonwealth in general is directly linked with the relative success of the initiatives within Appalachian Kentucky communities.
- Public and private investments have made advancements possible in many areas of the region and will drive future advancements as the region moves increasingly toward economic and social parity with the rest of the state and nation.
- The most productive and enduring efforts for community advancement are those originating at the local level.⁴

The Region's Status

A review of Appalachian Kentucky's demographic, social and economic status provides a portrait of a region that has made advances over the past several decades, but which also continues to lag behind the socioeconomic measurements of the state as a whole. On one hand, this progress illustrates the value of the ARC to Kentucky. ARC programs have been a boon to the region, providing development support through funding for needed projects and directing the attention of state and local leaders to specific challenges through ARC program initiatives. On the other hand, the gaps between Appalachian Kentucky and the remainder of the state speak to the need for ARC's programs and its partnership with the state. Without a robust ARC program to supplement other federal and state efforts to advance the region, the challenge of regional development would intensify.

Population

People are the most valuable resource of a region. Economies are built on people and their skills and capabilities. Robust patterns of commerce develop around diverse, growing populations. People catalyze quality of life improvements as they make investments in themselves and in their communities. Vibrant civic activity and responsive government emerges from the involvement of people. The population level of regions drives the allocation of development resources. It also creates perceptions about the region and the opportunities it affords.

Appalachian Kentucky's population trend from 2000 to 2010 offers a mixed message about the region. On the surface, the data relate the state's Appalachian district gained

population from 2000 to 2010. However, the growth rate was below that for the state as a whole and for the entire 13-state U. S. Appalachian region. (See Table 1.)

In addition, a closer investigation of the population data yields a more disturbing analysis of the region's stock of human resource. Almost half of the state's Appalachian counties lost population during the period. Twenty-four of the 54 counties in the region had fewer inhabitants in 2010 than they did in 2000.

Region	Population, 2000	Population, 2010	% Change, 2010 vs 2000
United States	281,421,906	308,745,538	9.7%
Appalachian US	23,642,578	25,243,456	6.8%
Kentucky	4,041,769	4,339,367	7.4%
Appalachian KY	1,160,627	1,184,278	2.0%

All of the counties losing population were in Eastern Kentucky, generally considered east of Interstate 75. Only Cumberland, Green and Monroe counties west of the interstate lost population. The most dramatic population declines were recorded in the core coal counties of Eastern Kentucky. Twelve coal counties⁶ experienced a population loss of almost 21,000 people during the period, seeing their aggregate population fall almost 6.5%. Leading the coal county decline were Breathitt County (-13.8%), Harlan County (-11.8%), Clay County (-11.5%), Leslie County (-8.8%), Knott County (-7.4%), Floyd County (-7%), and Pike County (-5.4%).⁷

The 30 counties gaining population did so at a rate that slightly exceeded the overall state population growth rate and surpassed the Appalachian US rate. The 30 gainers had an aggregate growth of 7.6% during the 10-year period. The total state rate was 7.4% while the Appalachian US rate came in at 6.8%. The leading counties in population growth posted impressive expansion rates. These leading counties and their growth rates from 2000 to 2010 are: Montgomery, 17.5%; Madison, 17%; Elliott, 16.4%; Garrard, 14.3%; Pulaski, 12.2%, and Laurel County, 11.6%. Montgomery, Madison and Laurel counties are situated on interstate highway corridors. Garrard is in the Bluegrass Region and is growing as a bedroom community for the Lexington metropolitan area. Pulaski County, in south central Kentucky, has a highly diversified economic base and excellent access to nearby interstate highways.

The population data clearly illustrates a division in the region. Generally, along Interstate 64, Interstate 75 and west of Interstate 75 are counties that tended to attract population and strengthen their human resource stock. East of I-75 and south of I-64 are counties which did not. For counties in this latter group, the Kentucky State Data Center makes a dire forecast based on the population trends:

“Throughout . . . the mountains of Eastern Kentucky, negative population momentum has been building for decades. Out-migration over generations has reduced the youth population and suppressed natural increase. What we see emerging in many rural communities is a top-heavy age structure. . . As a result, the viability of these communities is threatened.”⁸

Population reports from the Kentucky State Data Center relate 27.3% of the state’s total population resided in Appalachian Kentucky when the 2010 Census was taken. However, the agency’s projections forecast a slow decline from that level over the next several years. The Center projects Appalachian Kentucky’s population in 2020 will account for 26% of the total population of the Commonwealth. By 2030, the ratio falls to 24.7%.⁹

Most subregions of grouped counties in Appalachian Kentucky are projected to experience population increases of varying magnitudes over the next 16 years. However, significant declines are forecast for the 12 counties that are most closely linked to the region’s coal economy and coal culture. The coal counties are projected to lose 4.7% of their population from 2010 to 2020. The projected decline escalates from 2020 to 2030 as the loss for this 10-year period is forecast at 7.1%.¹⁰

Table Two details population projections for the area development districts with boundaries fully within the Kentucky Appalachian Region.

The Cumberland Valley Area Development District mirrors the uneven population trends of Appalachian Kentucky as a whole. The eight-county district is host to four coal counties, three counties that are on the Interstate 75 corridor and one county that is in neither subgroup. The four coal counties (Bell, Clay, Harlan and Knox) are forecast to drop almost 5% from their 2010 population levels by 2020. The decline for the period from 2010 to 2030 intensifies to 11.6%. This trend is typical for all Appalachian Kentucky core coal counties.

On the other hand, two of the three Cumberland Valley ADD counties along Interstate 75 are projected to grow over the next 16 years. Laurel County is forecast to experience a population increase of 18% by 2030 while Rockcastle County is projected to grow almost 4%. Whitley County’s population is expected to decline 4.8% from 2010 to 2030.

Projections for Jackson County, which is not a core coal-producing county and is not located on an interstate or other major highway, relate the county will experience a slight gain by 2020 and a slight loss from 2020 to 2030 to realize a very small overall gain from 2010.

Drawing from the Cumberland Valley ADD experience, a general assessment of Appalachian Kentucky’s population trends over the next 16 years can be made: (1) Coal counties are expected to continue to lose population, in some cases at substantial rates; (2) counties situated along interstate highways are generally expected to grow; and (3) except in rare cases, other counties off of an interstate with diversified economies will experience low to moderate growth.

Table Two: Projected Population Changes ¹¹		
Area Development District (*Coal County Host)	Projected Change, 2010 to 2020	Projected Change, 2010 to 2030
Big Sandy *	-3.9%	-10.0%
Cumberland Valley *	+0.3%	-1.4%
FIVCO	+0.8%	-0.5%
Gateway	+7.3%	+13.4%
Kentucky River *	-3.0%	-8.4%
Lake Cumberland	+6.9%	+11.9%

Poverty, Income & Employment

If people are the most valuable resource of a region, the status of that resource is vital in assessing the region's economic success, its social and commercial vitality and its movement toward socioeconomic objectives. One of the metrics employed in making this assessment is the poverty rate—the percentage of the population that has income below defined levels. For Appalachian Kentucky, the poverty rate has been one of the most common markers characterizing the status of the region and its people. While the poverty rate has declined dramatically over the past 60 years, the region's rate remains high and exceeds that of the state and the nation.

More than one quarter of Appalachian Kentucky's population had income below the poverty level in 2012. The regional poverty rate stood at 26.1 percent while the national rate was 15.9%.¹² The Kentucky state rate was 19.3 percent. Only five Appalachian Kentucky counties had poverty rates less than that for the state: Boyd, Clark, Edmonson, Garrard and Greenup.

While the region's rate remains high, it has improved over time. In 1960, the Appalachian Kentucky poverty rate was placed at a staggering 58.4%.¹³ Since then, the rate has fluctuated, driven in part by changes in the national economy, in part by cyclical events in the coal industry and through development initiatives led by government and private sector interests. By 1970, the rate had fallen to 38.8% and to 26% in 1980. It increased to 29% in 1990.¹⁴ Ten years later, it decreased to 24.4%.

Table Three at the right charts the poverty rates for Appalachian Kentucky area development districts that are completely within the Appalachian boundary. The ADDs with the highest poverty rates are those which host coal-producing counties. (However, the spread between the Gateway and Lake Cumberland ADDs is not that substantial from the rate for the Big Sandy ADD which has the lowest poverty rate among the ADDs that host coal counties.) Continuing the irony of Appalachian development, the coal counties—counties that are richest in natural resources and which have generated tremendous wealth over the years—have some of the highest poverty rates in the region. For example, Clay County's 2012 poverty rate topped out at 42%, only 0.9% below the rate for Owsley County which has traditionally been one of the nation's poorest counties. Bell, Breathitt, Floyd, Knott and Knox all had poverty rates that placed about one third of their populations in poverty.¹⁶

Table Three: 2012 Poverty Rates ¹⁵		
Area Development District (*Coal County Host)	Number of Residents In Poverty (All Ages)	Poverty Rate
Big Sandy *	41,615	28.1%
Cumberland Valley *	66,471	29.2%
FIVCO	27,336	20.7%
Gateway	20,695	27.0%
Kentucky River *	33,023	30.2%
Lake Cumberland	47,923	27.0%

Closely linked to the poverty rate are median household income and per capita market income data. Only three Appalachian Kentucky counties—Clark, Garrard and Greenup—have 2012 median household incomes that are above the state’s \$41,717. Clark’s median household income is \$45,116 while Garrard’s is \$42,620 and Greenup’s stands at \$43,869. Two other counties approach the state rate: Boyd County with \$40,155 and Madison County with \$40,798.¹⁷ From this point, the median household income for the remaining counties in Appalachian Kentucky declines sharply. The lowest median household income is posted in Owsley County at \$22,148 and the second lowest is in Clay County at \$22,834.

Another measure, per capita market income, follows the same pattern as that of median household income. Appalachian Kentucky trails all other comparative groups. Kentucky’s 2010 per capita market income (PCMI) is \$24,290. PCMI for the nation as a whole is \$32,562. Appalachian Kentucky’s PCMI is \$16,923 while the income number for the U. S. Appalachian region is \$24,425.¹⁸ Only Clark County in Appalachian Kentucky has a PCMI (\$24,987) higher than the state’s. The lowest Appalachian Kentucky PCMI are recorded in McCreary (\$9,860), Wolfe (\$10,331), Jackson (\$10,360), Elliott (\$10,480) and Owsley (\$10,677) counties.¹⁹

The unemployment rate also addresses the region’s economic success, its social and commercial vitality and its movement toward socioeconomic objectives. Appalachian Kentucky again lags the state, the U.S. Appalachian region and the nation when this measure is applied. Appalachian Kentucky’s three-year (2009-2011) unemployment rate was 11.0%. The state rate stood at 10% and that of the U. S. Appalachian region was 9.4%. The national rate for the period was 9.3%²⁰.

Education Attainment

Education attainment levels generally indicate how well a population is prepared to perform in the workplace. They also provide guidance about individual’s current and future earning potential and non-economic matters such as civic engagement and leadership capacity. Again, a familiar pattern emerges when this metric is investigated for Appalachian Kentucky: The region’s high school and college graduation rates are much better than they were 40 years ago, but, once again, the current numbers trail those of the state and the U. S. Appalachian region as a whole.

In 1970, slightly more than one in four Appalachian Kentuckians 25-years-old and older had completed high school. For the state as a whole, the high school education rate was 38.5%. By 2011, the region’s rate had increased to almost three in four (72.6%) and the state rate had grown to 81.7%. An identical pattern marks the progress in attaining a bachelor’s degree or higher, but the absolute numbers are much lower. In 1970, only 5% of Appalachian

Table Four: Education Attainment Rates ²¹		
Geographic Division	% Of Population 25 Or Older With HS Diploma or More	% of Population 25 or Older With Bachelor Degree Or More
United States	85.4%	28.2%
Appalachian Region	83.5%	21.0%
Kentucky	81.7%	20.6%
Appalachian Kentucky	72.6%	12.7%

Kentuckians had a college degree while the state rate was 7.2%. In 2011, the regional college completion rate was 12.7% and the state's was 20.6%.²²

While the 2011 Appalachian Kentucky education attainment rates for (1) a high school diploma and greater and (2) a bachelor's degree or greater are well below the state rates for these categories, more intense discrepancies are identified when the rates for individual counties are investigated. For example, only two counties, Boyd and Madison, have high school diploma and greater attainment rates that exceed the state rate. Just over one-half, 28, of Appalachian Kentucky counties have an attainment rate in this category of 70% or less—about 12 points below the state rate. Of these 28 counties, 19 are in Eastern Kentucky. Ten of the 19 are core coal counties.

Health Status

Governor Beshear has called Kentuckian's overall health status "dismal."²³ Supporting his assessment are the results of the 2013 Gallup-Healthways Well Being Index which found Kentucky had the second lowest well-being rating in the nation.²⁴ (West Virginia had the lowest.) The Governor's characterization can easily be extended to the state's Appalachian region, where the economic and education posture of the people impact the status of their health. More Appalachian Kentuckians generally smoke, are obese, have diabetes and are without health insurance than the state's population as a whole. Table Five summarizes the comparison between Appalachian Kentucky adults and the statewide adult population.

On average, 13.2% of the adult population of Appalachian Kentucky counties is diabetic. From a statewide perspective, 11.6% of the total adult population is diabetic. Only five of 54 Appalachian counties (Clark, Hart, Madison, Montgomery and Rowan) have adult populations with diabetes at a lower ratio than that of the state. At the other end of the spectrum, at least 15% of the adult population of eight counties (Bell, Boyd, Floyd, Greenup, Harlan, Leslie, Letcher and Pike) have the disease.²⁶

Slightly more than one in four adult Kentuckians (26.4%) smoke. In Appalachian Kentucky, the average ratio among adults approaches one in three at 31.6%. Again, only five Appalachian region counties have an adult smoking rate below the state ratio.²⁷

Table Five: Selected Health Indicators ²⁵		
Health Indicator	% of State Population	Average % of Appalachian KY Counties' Population
Adult Diabetics	11.6%	13.2%
Adult Smokers	26.4%	31.6%
Adult Obesity	32.9%	34.6%
Adults Unable to Afford a Physician's Visit	17.0%	22.2%

Adult obesity in Appalachian Kentucky almost mirrors the occurrence of the physical condition in the statewide adult population. About one in three Kentuckians is obese. The average obesity rate for the adult population in Appalachian Kentucky counties is 34.6%. In

only nine Appalachian counties (Clark, Green, Magoffin, Martin, Madison, Montgomery, Pulaski, Robertson and Wolfe) is the county obesity ratio less than one in three adults.²⁸

Appalachian Kentucky has made substantial strides over the years to improve access to healthcare services. While the region still has counties that are characterized as having low access to primary care physicians, many counties are rated as having high or intermediate access to these healthcare providers. Today, the issue may focus more on the affordability of healthcare than on its availability. While the federal Affordable Care Act will impact the size of the pool of insured Appalachian Kentuckians, data from 2010 related most Appalachian counties had adult populations without health insurance at an incidence higher than the state rate of 21.8%.²⁹ During a 2005-2011 sampling period, one in four adults in a dozen Appalachian Kentucky counties said they could not see a doctor due to cost reasons. In another 39 counties, the ratio rose to one in five adults. Statewide, 17% of adults cited cost as a reason for not seeing a doctor. In Appalachian Kentucky, only six counties were below that level.³⁰

Physical Infrastructure

Physical infrastructure is vital to a region's development. It connects people and provides access to and egress from the region. Physical infrastructure contributes to the quality of life by providing safe drinking water from reliable sources and properly disposing of wastes. Other physical infrastructure includes parks and recreation facilities, schools, public buildings, airports and public service equipment such as fire apparatus and emergency medical services. Perhaps in Appalachian Kentucky, the most pressing infrastructure needs are in those categories that address transportation needs and support quality of life needs: roads and bridges, drinking water supplies and waste water treatment.

Surface Transportation

While few data sets are immediately available for Appalachian Kentucky for transportation infrastructure, inferences about their condition and availability can be drawn from data for the state as a whole. For example, the Kentucky Chapter of the American Society of Civil Engineers (KyASCE) said in a 2011 report, "Significant improvements are needed across the state to increase capacity of the transportation system and safety of existing roads in rural settings and to maintain pavements in a minimally acceptable condition of service. . . Kentucky currently has a project funding backlog of more than 50 years worth of projects."³¹

Bridges are key components of the surface transportation network. In the 2011 report, KyASCE said the deficiency rate (a measure of a bridge's ability to support the current demands of inter and intrastate commerce and the personal travel demands of residents and visitors) for bridges was 32.2%--almost one in three bridges were found deficient.³² In Appalachian Kentucky, 51% or more of the bridges in Harlan, Letcher, Pike, Perry, Leslie and Clay were rated as deficient. In Whitley, Laurel, Lee, Wolfe, Knott, Floyd and Martin counties, the deficiency ratio ranged from 41% to 50% of bridges. West of I-75, Appalachian Kentucky bridge deficiencies ranged from 11% to 30%.³³

The Appalachian Development Highway System (ADHS) includes major arterial roads (US 23, the Bert T. Combs Mountain Parkway and a portion of KY 80 and KY 90 west of I-75) that connect to I-64 or I-75. US 119 and KY 15 provide intraregional connections. This ADHS network is supported by US 25E, KY 80 from Somerset to London, the Hal Rogers Parkway and KY 80 from Hazard to Prestonsburg. Bypasses in communities such as Corbin, London, Hazard, Harlan, Somerset and Pineville add to the function of the region's surface transportation network.

However, in addition to the needs pointed out by KyASCE, a significant need in the region is upgrading the rural road network that connects communities to the major ADHS arteries and the state and federal highways. Many communities "off the beaten path" are not gaining maximum benefit from the inter and intraregional highways as their access to these roads is subpar.

Drinking Water

KyASCE reported, "Kentucky is making significant progress toward the goal of providing access to a public water supply for all Kentuckians by the year 2020."³⁴ However, the civil engineers' group notes that as progress continues toward the goal and the goal is ultimately achieved, attention must turn to maintaining the drinking water supply and distribution network. For example, their 2011 report noted 10,000 miles of water mains—about 17.6% of the network inventory—is at least 60 years old. The report concluded, "Over the next 25 years, the age and condition of Kentucky's water infrastructure will require investment to assure system reliability and assure quality water reaches the customer."

Wastewater Treatment

The placement of adequate wastewater treatment facilities in Appalachian Kentucky has long been a regional need. Areas outside of incorporated cities generally have no public collection and disposal systems; septic systems have often been substandard. In extreme cases, it hasn't been uncommon to find straight pipes carrying waste water from homes directly to nearby rivers or creeks.

In many instances, municipal systems are aging and inadequate. KyASCE said, "In communities throughout the state, (wastewater collection and disposal systems) are outdated, under capacity or in need of rehabilitation." These systems serve 55% of the households in Kentucky.³⁵

Efforts have been made to address this problem in Appalachian Kentucky. ARC funding has financed system extensions and upgrades through the years. East Kentucky PRIDE, which operates in 42 Appalachian Kentucky counties, has also contributed to resolving this need. From 1997 to 2013, PRIDE provided funding for the installation of just over 7,300 septic systems (some of which replaced straight pipes) and assisted with extending sewer projects to 22,251 homes in the region.³⁶

Telecommunication Infrastructure

Telecommunications infrastructure has grown to be as vital to commerce and economic development and expansion as highways and rail services. The importance of electronic communication through the internet and dedicated networks increases as the quality and speed of data exchange grows and as the hardware that supports the telecommunication system becomes more sophisticated. The National Telecommunications and Information Administration (NTIA) at the U. S. Department of Commerce said, “The Internet is an extraordinary platform for innovation, economic growth and social communication. It has become the backbone of a global digital infrastructure and an integral part of the information economy.”³⁷

Given the importance of the Internet and high speed service as a driver of commerce, those areas with access to high speed Internet service are more likely to enjoy its benefits than are those areas that lag in availability of the utility. However there are other factors that impact the outlook for a community to benefit from high speed internet service. The NTIA explained, “As the Internet economy grows, the nature and pace of its growth depends on the ability of the nation’s citizens to adopt and make use of the Internet. Supply side factors, such as availability of broadband service, are critical. Equally important, however, is the ability of consumers to participate in online opportunities.”³⁸

When assessing the availability and use of high speed Internet infrastructure, Appalachian Kentucky is not unlike many other rural areas across the country. Most counties in the region have access to high speed internet service with a download speed of 3 megabits per second (Mbps) or more. However, household penetration of this service trails other areas and national statistics suggest usage is only mediocre at the household level. Other data indicate urban as well as rural residents fail to see value in using high speed internet services.

The NTIA reports 79.6% of the households in Kentucky’s Fifth Congressional District (which includes most of the state’s Appalachian counties) have access to what is traditionally considered high speed Internet service; i.e., a download speed of 3 Mbps or greater and an upload speed of 0.7 Mbps or greater.³⁹ However, that penetration rate is the lowest among the state’s six Congressional Districts. Kentucky’s Third District has 100% penetration while penetration in Districts One, Two, Four and Six ranges from 95.2% to 97.4% for this level of broadband Internet service.⁴⁰

Six Fifth District counties have household penetration rates of less than 40% for 3 Mbps service. These are Lee, Breathitt, Powell, Knott, Martin and Leslie counties. Lee County has the lowest accessibility rate in the state at 21.8%.⁴¹ At the other end of the spectrum, NTIA reports 16 Appalachian Kentucky counties have household access penetration rates of 90% or greater. These counties are Adair, Bath, Boyd, Clark, Garrard, Green, Greenup, Laurel, Lincoln, Madison, Montgomery, Nicholas, Pulaski, Rockcastle, Rowan and Russell.⁴²

In many cases, “high speed” Internet service is considered to provide a download speed of 3 Mbps and an upload speed of .768 Mbps. However, other standards apply, which confuses the assessment of the level of service available to an area. One source defines “high speed broadband” service as 4 Mbps.⁴³ The Michigan Department of License & Regulatory Affairs states, “Full federal broadband lines are lines with information carrying capabilities in

excess of 200 Kbps in both directions simultaneously. One way broadband lines are lines with information carrying capacity in excess of 200 Mbps in one direction (typically downstream) and less than or equal to 200 Kbps in the other direction (typically upstream).”

Fiber optic technology, which converts electrical signals to light and transmits the light through transparent glass fibers about the diameter of a human hair, permits these higher transmission speeds. Fiber technology supports data transmission speeds that far exceed current DSL or cable modem speeds, typically by tens or even hundreds of Mbps.⁴⁴

In Kentucky’s Fifth Congressional District, only 5.5% of households have access to fiber optic high speed internet service.⁴⁵ The service is not available in 33 counties.⁴⁶ This ratio is followed by 2.9% in the Third District and 2.7% in the Sixth. Kentucky’s Second Congressional District has a fiber penetration availability rate of 19.4% while the Fourth District’s ratio is 13.5%.⁴⁷ From a statewide perspective, fiber optic broadband service is available in only 42 Kentucky counties. (Half of these are in Appalachian Kentucky, with availability almost evenly split between the core East Kentucky counties that are east of I-75 and south of I-64 and the remaining sections of the state’s Appalachian district.⁴⁸)

While service availability obviously governs high speed broadband Internet usage, other factors impact adoption of the technology. From a national perspective, “significant gaps in Internet usage (at home) still exist among certain demographic and geographic groups around the country. People with college degrees adopt broadband at almost triple the rate of those with some high school education (84% vs 30%), among adults 25-years and older. . . Rural America lags behind urban areas by 10 percentage points (60% vs 70%).”⁴⁹ NTIA reported other factors affecting adoption in the home include family income, age, employment status, household type and disability status.

Among the rural residences without high speed Internet usage in the home, the most prevalent reason given for lack of adoption of the technology is a perception that the service is not needed or the household isn’t interested (46.1%).⁵⁰ Other reasons given are: too expensive (21.1%), no computer or inadequate computer (12.9%), service not available (9.4%), can use the service elsewhere (3.7%) and other, unspecified reasons (6.7%).

Taken as a whole, the data highlighting regional service availability and the conclusions that can be drawn regarding adoption suggest Appalachian Kentucky should focus on both network upgrades and build out as well as educating the region’s residents about the value of broadband Internet and encouraging them to adopt it.

Economic Drivers

Among the factors that help define and support vibrant local and regional economies are a diversified base of enterprises that provide employment opportunities, the volume of jobs the enterprises offer and the extent to which the enterprises attract customers, and money, from outside their home area. For Appalachian Kentucky, challenges confront regional leaders in each of these categories. In most Appalachian Kentucky counties, the majority of jobs are concentrated in a few industry sectors, the volume of those jobs is limited and, in several cases, many enterprises tend to only recirculate money in the local economy, rather than attracting additional money from outside the county, which restrains economic expansion.

Five industry sectors provide the greatest share of jobs in Appalachian Kentucky. They are (1) public administration, (2) health care and social assistance, (3) manufacturing, (4) retail trade and (5) accommodation and food services.⁵¹ This distribution mirrors that for the state as a whole, but in Appalachian Kentucky, these five sectors account for almost 72% of the jobs in the region while at the state level they account for 63.2%. (See Table Six.)

Providing additional evidence that a greater concentration of jobs is found in a more narrow band of industrial sectors in Appalachian Kentucky, the data relates the three leading sectors in the region (public administration, health care and social assistance and retail trade) account for 51.6% of the region's jobs. The three leading sectors for the state as a whole account for just shy of 43%. (At the state level, manufacturing replaces retail trade as the third leading job share sector.)

In more than one in four Appalachian Kentucky counties (15 of the 54 counties), only three sectors provide at least 70% of the jobs in each county. (Nine of these 15 counties are heavily dependent upon the public administration, health and social assistance and retail trade sectors. In the remaining six, all are dependent upon manufacturing, mining, quarrying and oil and gas extraction or accommodation and food service sectors in addition to public administration jobs.)

The leading share of jobs in 37 Appalachian Kentucky counties is provided through the public administration sector. Jobs in this category are government service and support jobs, ranging from police and fire protection to elected officials and administration of local, state and federal agencies. It excludes teachers, public education non-certified personnel and other non-administrative positions. At the low end of the spectrum, one in five jobs in Adair County is a public administration job. At the high end, just over 63 percent of the jobs in Elliott County are public administration jobs while in Edmonson County the ratio is slightly above one out of two jobs.⁵³ This pattern of industry sector concentration is relatively even across the region; i.e, there appears to be limited correlation between subregions of Appalachian Kentucky and their heavy dependence on public administration jobs. Even in the 17 Appalachian counties where public administration jobs do not comprise the leading employment sector, the sector still ranks among the top five job sectors represented in the counties.

In eight counties, the manufacturing sector provides the greatest share of jobs while in seven counties, health care and social assistance jobs lead the industrial sector distribution.

Table Six Distribution Of Jobs By Industrial Sector ⁵² 2012		
Industrial Sector	% of Kentucky Jobs in Sector	% of Appalachian KY Jobs in Sector
Public Administration	17.3%	21.3%
Health Care and Social Assistance	12.9%	16.7%
Manufacturing	12.7%	12.0%
Retail Trade	11.5%	13.6%
Accommodation and Food Services	8.8%	8.1%
Five Leading Sectors Combined	63.2%	71.7%

Sectors related to management of companies and mining, quarrying and oil and gas extraction lead in one county each.⁵⁴

The health care and social assistance industry sector ranks second as providing the greatest share of jobs in the Appalachian counties. This sector claims the second largest percentage of jobs in 23 counties. The retail sector provides the third and fourth greatest percentage of jobs in a combined 46 counties. Rounding out the top five employment sectors is the accommodation and food services sector. This sector provided the fifth greatest percentage of jobs in 26 counties.⁵⁵

While the distribution of jobs by sector aids in identifying the drivers of local economies, the volume of jobs the sectors provide offers a dynamic perspective on the opportunities for employment. Slightly less than one in five jobs in Kentucky is found in Appalachian Kentucky.⁵⁶ From another, more penetrating perspective, the data relates 80 percent of the jobs in Kentucky are found in the state’s counties that are outside the Appalachian boundary.

Future Jobs Outlook

The job growth rate in Appalachian Kentucky is projected at 12% from 2012 through 2022, with the number of jobs increasing from 343,854 to 385,854.⁵⁷ This growth rate will match the projected statewide rate for the period. The region’s share of the total state job pool will remain at just shy of 20%.

Six Appalachian counties (Leslie, Knott, Letcher, Martin, Metcalfe and Fleming) are projected to lose jobs through 2022. Another 19 counties will have a job growth rate less than the region’s 12% rate. None of Appalachian Kentucky’s core coal counties are projected to match the 12% regional job expansion protection.

Occupational outlooks prepared by the Kentucky Department for Workforce Development, Labor Market Information, provide detail about job projections to 2018 that offer insight into employment trends in the Area Development District subregions of Appalachian Kentucky.⁵⁸ An assessment of the outlooks for seven ADDs (Kentucky River, Big Sandy, Cumberland Valley, Lake Cumberland, FIVCO, Buffalo Trace and Gateway) suggests at least three of the five leading industrial sectors in Appalachian Kentucky will maintain their roles as economic drivers. Across the seven ADDs, occupations in the retail trades, health care and social assistance and accommodation and food services sectors are projected to have the most annual job openings through 2018. Table Seven details the occupations expected to have the most openings.

Rank	KY River ADD	Big Sandy ADD	Cumberland Valley ADD	Lake Cumberland ADD	FIVCO ADD	Buffalo Trace and Gateway ADDs
1	Cashiers	Cashiers	Cashiers	Cashiers	Retail Salesperson	Cashiers
2	RNs	Retail Salesperson	Retail Salesperson	Home Health Aides	Cashiers	Waiters & Waitresses

Rank	KY River ADD	Big Sandy ADD	Cumberland Valley ADD	Lake Cumberland ADD	FIVCO ADD	Buffalo Trace and Gateway ADDs
3	Food Prep & Service Workers	RNs	Customer Service Reps	Stock Clerks & Order Fillers	RNs	Retail Salesperson
4	Heavy Truck & Trailer Drivers	Food Prep & Service Workers	Waiters & Waitresses	Retail Salesperson	Customer Service Reps	Team Assemblers
5	Retail Salesperson	Heavy Truck & Trailer Drivers	RNs	Customer Service Reps	Food Prep & Service Workers	RNs
6	Elementary School Teachers	Customer Service Reps	Food Prep & Service Workers	Food Prep & Service Workers	Waiters & Waitresses	Food Prep & Service Workers
7	Child Care Workers	Operating Engineers; Other Const. Equip.	Elementary School Teachers	RNs	Nursing Aides, Orderlies & Attendants	Managers of Retail Sales Workers
8	LPNs & LVNs	Elementary School Teachers	Stock Clerks & Order Fillers	Laborers & Freight Movers	LPNs & LVNs	Elementary School Teachers
9	Nursing Aides, Orderlies & Attendants	Managers of Retail Sales Workers	Managers of Retail Sales Workers	Child Care Workers	Managers of Retail Sales Workers	Teacher Assistants
10	Operating Engineers; Other Const. Equip.	Waiters And Waitresses	Heavy Truck & Trailer Drivers	Waiters & Waitresses	Receptionists & Information Clerks	Nursing Aides, Orderlies & Attendants

The Kentucky Department for Workforce Development, Labor Market Information, data also illustrates that occupations in the health care and social assistance industrial sector will be the fastest growing occupations across all seven ADDs. However, as this metric is a percentage-based measurement, it does not necessarily reflect a surging upswing in the absolute number of new jobs. For example, in the Kentucky River ADD, medical assistants are projected to be the third fastest growing occupation in the region at 33% growth from 2008 to 2018. However, in terms of absolute number of jobs, the category will add only 31 positions over the 10-year period and provide, on average, four annual job openings.⁶⁰

Other health care and social assistance occupations among the fastest growing in the Kentucky River ADD are physical therapists, physicians and surgeons, mental health and substance abuse workers, medical records and health information technicians, pediatricians, mental health counselors and registered nurses.

The leading fastest growing occupation in the Kentucky River region is personal and home care aides at 38.9%, which will provide 56 new jobs over 10 years. The second fastest growing occupation in the ADD is computer software engineers at 37.5% growth from 2008 to 2018. However, in terms of absolute number of jobs, the category will add only 15 positions over the 10-year period and provide an average of two job openings annually.⁶¹

Coal

While every Appalachian Kentucky county is not a coal-producing county, coal has had a significant impact on the region. No industry has influenced perceptions about the region more than coal; no industry has guided the development of the core of Appalachian Kentucky more than coal.

The advent of the coal industry in Eastern Kentucky more than 100 years ago continued a regional economic transformation that shifted counties from subsistence agricultural economies to industrial economies that were connected to Midwestern and East Coast urban centers, manufacturing hubs and industrial complexes. The transition began with logging, but coal became important as local economies were built upon its mining, processing and transportation; the industry provided jobs and created a conduit to draw money into the region. It also created a track to move the region's wealth to those urban areas and industrial hubs where its dividends were invested.

Coal companies built towns in the mountain wilderness, providing homes, so miners could live close to work, and commercial services to keep them in the villages. This arrangement, combined with ongoing labor relations issues, spawned tension between miners and the companies. These tensions often became the roots of violent confrontations between miners and company agents. Coal altered the culture of the Appalachian Kentucky heartland and created a dimension to Appalachian life that continues to influence generations of families.

Clearly, coal has been an economic driver for Appalachian Kentucky's core coal counties. The history of the industry in the region is marked by cycles of boom and bust activity, periods of thriving economic activity followed by terms of curtailed orders, reduced production and layoffs only to be ended with another flourish of production and hiring. Even with this pattern, coal has been a mainstay of many local economies.

Today, however, coal's position as a driver of these local economies is weakening. Table Eight charts the data that leads to this conclusion. During the five-year period from 2008 to 2013, coal production in Eastern Kentucky, which fuels primarily electric power generation plants, has dropped more than 51 million tons. Output in 2013 was 56% less than it was in 2008. Analyzing data from Kentucky's Energy and Environment Cabinet on a quarter-to-quarter basis, the downward trend intensifies. In the Fourth Quarter of 2008, 15,418 people were employed in the Eastern Kentucky coal industry. By the Fourth Quarter of 2013, employment had plummeted to 7,332—a loss of almost 8,100 jobs and just over 52% of the

Year	Average Annual Employment	Annual Production (Million Tons)
2008	14,390	90.9
2009	14,094	74.9
2010	13,072	68.3
2011	13,716	67.9
2012	11,095	49.3
2013	8,205	39.8

workforce.⁶³ During the same quarterly period, production dropped from 22.4 million tons to 9.2 million tons, a decline of almost 60%.

Kentucky's Energy and Environment Cabinet Secretary Len Peters has explained the factors that have pressured the economics of coal: (1) low-priced natural gas which has encouraged electricity producers to switch to the fuel for their boilers, (2) decreasing the productivity in mining operations in the Eastern Kentucky Coalfield which leads to increased price for the product, (3) moderate demand growth for electricity, and (4) federal environmental regulations that impact coal production and use.⁶⁴ The reality of the decline in production and employment, which results directly from a decline in demand for the region's coal, raises questions about coal's continuation as an economic driver to the extent it historically has been. Secretary Peters said, "Looking ahead, are we going to see many booms and busts in the Kentucky coal picture over the next 15 years? Maybe. But I think it's going to be on the back of a steady decline. When you look at all these things affecting coal nationally, here is what the (U.S. Energy Information Agency) says: 'The favorable supply and price picture for natural gas, and to some extent the increased penetration of renewable power, appears to have created a new, lower normal for the coal share of the power market.'" ⁶⁵

Governor Beshear's Plan for Appalachian Development

A survey of the region's status highlights the tension between efforts to upgrade Appalachian Kentucky's socioeconomic profile and the actual results of those efforts. Many initiatives have been undertaken over the past half century to move the region toward economic parity with the state and the nation. While these initiatives have led to improvements and have expanded the capacity of Appalachian Kentucky to better address issues that impede economic progress, they have not resolved those issues. A set of entrenched factors has persistently complicated the challenges associated with socioeconomic advancement in Appalachian Kentucky. These factors are:

- The lack of a continuously evolving economy based on sustainable commercial activities that link Appalachian Kentucky with external customers and markets outside the region.
- The relative isolation of sections of the region.
- A lack of diversity in local economic drivers.
- Limited region-based, locally driven engines of wealth generation that support reinvestment of capital in the region.
- Personal education insufficiency.
- A muffled outlook for the future tinged with pessimism, a result of ongoing, immediate economic distress.

To address these factors Governor Beshear and Kentucky 5th District Congressman Hal Rogers boldly engaged in an unprecedented collaboration across political party lines to create an initiative to address the challenges facing Appalachia Kentucky.

They specifically were not interested in yet another series of task forces, blue ribbon panels or commissions, which have analyzed and strategized over this region for half a century. Rather, they were considering an event or initiative that might enable the region to reassess its current challenges and discuss ideas or innovations already underway which could be leveraged or aligned to capture emergent regional development opportunities.

Well aware of the prolonged difficulties facing the region including the hardships resulting from restructuring in the coal industry, as well as the regional, state and local economies, they believed the region was at a "tipping point" and that people were ready, willing and able to begin an honest dialogue regarding the future they face and what would be necessary to not simply accept the one to come, but to envision and work together to create a more hopeful alternative.

This was driven by both the urgency of the moment, and a growing realization that with the federal footprint lightening, and national and state governments both in severe budgetary retrenchment, old approaches were no longer possible, even if they had worked. A new framework for the region's future was essential.

What was unique was that Governor Beshear and Congressman Rogers had the vision and courage to step forward together, announce their common commitment to a new vision for Appalachia Kentucky, and then ask the region to convene and begin creation of such a framework. But above all else, they hoped to create a neutral venue for the region's

organizations, institutions, business leaders, and citizens to discuss a new beginning with hope, vision and collaboration, an authentic grassroots approach.

A SOAR Summit was announced for late 2013. As word of the Summit spread, initial resistance and cynicism in the region turned to fascination and then engagement. Registration slowly grew and then exploded. Venues were changed, resources deepened, and the Appalachian Regional Commission and USDA Rural Development, among others, offered agency support. Regional and national press began to discuss this unique approach and eventually, the 250 folks from whom sponsors originally hoped grew exponentially, first to 500, then 750, 1,000 and ultimately 1,500 and beyond.

What occurred was an exemplary regional dialogue. Participants were thoughtful, engaged, respectful of one another's views, creative, deliberative and above all else, hopeful. Almost 600 individual innovation ideas or personal/organizational commitments to support the future of SOAR were submitted.

After the December 2013 Summit, steps have been taken to design and create a leadership structure for future activities. SOAR, Inc. was created and certified as a 501c3 non-profit entity. In March 2014, Governor Beshear and Congressman Rogers announced the SOAR Leadership and Action Plan. An Executive Board consisting of 9 Official Members and 4 Ex-Officio Members representing state and local government were appointed. Additionally, ten working groups were created and chairs announced to conduct listening sessions across the region and compile reports reflecting information obtained. They were further charged with identifying priority action items to present to the Executive Board. The Working Groups represent the following areas:

- Agriculture, Community and Regional Foods, Natural Resources
- Broadband
- Business Incubation
- Business Recruitment
- Education and Retraining
- Health
- Infrastructure
- Leadership Development and Youth Engagement
- Regional Collaboration and Identity
- Tourism, Arts and Heritage

Two other governance committees were appointed. A Development Committee will endeavor to build a sustaining resource base for SOAR initiatives. The founding members of this committee will work to create an integrated resource stream from the private, public and philanthropic sectors, to support the permanent SOAR enterprise. The Futures Forum Committee, chaired by former Governor Paul Patton, will focus on long-term strategies to improve the region. Members of this group will work with the Executive Board and Working Groups to formulate viable strategies for future regional development. This group will also create a "SOAR 2025 Vision" to be presented to the region in a 2015 SOAR Futures Forum.

SOAR has been established and designed to function in perpetuity, thereby transcending any problematic issues with future changes in political administrations. A young

and dynamic Executive Director from the region has been selected and engaged following a national search. SOAR is “off and running.”

Substantial financial resources have been made available to buttress efforts at establishing SOAR Inc. and to ensure long-term sustainability. Governor Beshear directed that \$250,000 of Kentucky’s 2014 ARC allocation be made available for initial operational expenses. In addition, he secured \$400,000 in coal severance funds to be allocated in \$200,000 increments in each year of the 2014-2016 Biennium Budget.

Federal Co-Chair Earl Gohl has demonstrated ARC’s commitment to sustain and propel SOAR forward by pledging funding guarantees of \$750,000 in strategic installments over four federal fiscal years (FFY14, 15, 16 and 17).

A vital, securely established SOAR Inc. will serve as the instrument by which Governor Beshear advances his Appalachian Development Plan. By so doing, he endeavors to advance and promote a resilient and diverse eastern Kentucky economy by providing leadership, vision, and collaborative partnerships to support innovative regional practices and enhance public and private investments in areas such as job creation, entrepreneurship, tourism, education and lifelong learning, health and wellness, arts and heritage, and sustainable agricultural practices and food systems.

Governor Beshear advocates engaging all components of his development plan. While each element of his plan addresses a specific regional challenge, they are cross-cutting and complementary. They combine to present a comprehensive, innovative and coordinated approach to regional advancement.

Governor Beshear’s Kentucky Appalachian Development Plan addresses four broad action areas:

1. Substantially upgrade the region’s relevance in the 21st Century economy.
2. Improve and transform the region’s traditional infrastructure and high speed broadband telecommunications capacity.
3. Support a broad based and innovative approach to improving the region’s human resource.
4. Engage mechanisms that promote and continuously encourage community-based development strategies.

I. Economic Relevance

Appalachian Kentucky has a history of economic relevance. In the eastern reaches of the region, the coal industry has linked the core coal counties with customers literally across the globe. Eastern Kentucky coal has fired power plants along the East Coast and in the Southeast; it has been used to make steel in the Midwest. Eastern Kentucky coal powered steam engines have heated homes in the Northeast. The “black diamond” from Appalachian Kentucky has been a fuel source for overseas consumers.

Before coal became a primary trading commodity, a larger economic footprint was cast in Eastern Kentucky by the logging industry. Timbering began emerging as a significant regional industry in the late 1800s after the timber resources of the Northeast and the Great

Lakes Region diminished due to consumption and population growth. Even earlier, sections of Appalachian Kentucky on the Cumberland Plateau built trading patterns with external customers and established their economic relevance. For example, Clay County was a significant producer of salt.

Subregions of Appalachian Kentucky outside of Eastern Kentucky also developed economic relevance, primarily through agricultural products. In other cases, transportation support services for railroads and manufacturing anchored local economies.

Despite this history, one of the most persistent challenges in keeping Appalachian Kentucky's economic relevance healthy has been the region's lackluster performance in adjusting to market forces that negatively impact the mainstays of local economies. In short, the challenge has been and will remain finding new connections to external markets and also being able to innovatively expand and diversify the economic base.

To confront these challenges, real and substantive contributions in the form of strategies and short-term, midterm and long-term Action Items will be put forth by primarily eight of the ten Working Groups. They are: Broadband, Business Incubation, Business Retention, Education and Retraining, Infrastructure, Health, Tourism, Arts and Heritage and Agriculture, Community and Regional Foods, Natural Resources. Submitted priority action items will be approved by the Executive Board. Working Groups' proposed action items that do not percolate to the top, will not be cast aside but will remain relevant and subject to selection as future action items as SOAR goals are achieved.

There have been some "Game Changing" very high impact concurrent developments as the Executive Board and the SOAR Working Groups formulate and proceed with implementing Economic Development Plans. These developments in the form of major policy and funding announcements are directly linked to the establishment of SOAR and are identified elements of the Governor's Appalachian Development Plan. "Game Changing" indeed, with respect to enhancing the regions relevance with the 21st Century Economy. These are:

- U.S. Department of Education announced a \$30 million "Race to the Top" grant awarded to enhance the quality of education for K-12 in 17 eastern Kentucky school districts. The initiative will benefit 43,000 students and 2,500 educators in 14 counties.
- Governor Beshear and Congressman Rogers announced an ambitious plan to extend access to high speed broadband "Dark Fiber" throughout Kentucky. Underserved Appalachian Kentucky will constitute the first phase of the plan. Appalachian broadband development will be expanded upon, in the Infrastructure section of this document.
- Governor Beshear announced plans to create a four-lane corridor from I-64 to Pikeville, Kentucky's eastern most county, by extending and reconstructing the "Mountain Parkway," the main artery into Appalachia Kentucky. This too will be expanded upon in the Infrastructure section.
- A \$2.6 million loan pool to spur small business start-ups and expansions. Businesses in southeastern Kentucky recently gained access to a new source of capital to encourage economic growth in the region through the SOAR initiative. The loan program was made possible by a \$400,000 grant announced by Governor Beshear; \$900,000 in private funds raised by Kentucky Highlands Investment Corporation; and a \$1.3 million matching grant from the Community Development Financial Institutions Fund of the U.S.

Department of the Treasury. The \$2.6 million loan program will be available in 22 counties.

- President Obama designated eight East Kentucky counties as a Federal “Promise Zone.” An eight-county region in southeastern Kentucky, hit hardest by poverty and loss of coal jobs, is among the first five sites in the country to be designated as a federal “Promise Zone” by the White House. The designation means the federal government will partner with these zones to accelerate public-private partnerships, promote job creation and education opportunities, and improve access to federal grant programs.
- U.S. Department of Agriculture Secretary Tom Vilsack joined Governor Beshear and Congressman Rogers to announce the expansion of the Department’s “StrikeForce” Initiative, which will serve 73 Kentucky counties. USDA will seek to increase its investments in the targeted counties with an emphasis on strengthening partnerships in distressed poverty-stricken rural areas of Eastern Kentucky.
- The Kentucky Cabinet for Economic Development has established a Kentucky Innovation Network office in Pikeville. The office, on the University of Pikeville campus, provides much-needed assistance to start-up companies in the Appalachian region. The Pikeville office operates in the University’s Community Technology Center and serves nine counties, including Pike, Martin, Johnson, Floyd, Knott, Letcher, Perry, Breathitt and Magoffin.
- Governor Beshear creates KARD: Kentucky Appalachian Regional Development fund enacted in the 2014/2016 budget. The provision provides for \$2 million in each fiscal year to be administered by the Department for Local Government. These funds are coal severance dollars and can be utilized for loans, grants or investments that: support job creation and retention, entrepreneurship, tourism, broadband deployment, education and lifelong learning, workforce training, leadership development, public engagement, health and wellness, arts, heritage, infrastructure, economic diversity, and sustainable agricultural practices and food systems within and across counties in the SOAR region.

As a result of what has been enumerated in the previous pages there exists a sense of positive momentum in Appalachia Kentucky. The establishment of SOAR, the many policy and funding announcements, and the engaged leadership of Governor Beshear demonstrates and confirms that this administration will aggressively pursue the objective of upgrading the region’s economic relevance. This effort will touch on three goals of the ARC’s Strategic Plan for Appalachia (2011-2016). They are as follows:

Goal 1: Increase job opportunities and per capita income in Appalachia to reach parity with the nation.

- Strategic Objective 1.2: Diversify the economic base
- Strategic Objective 1.3: Enhance entrepreneurial activity in the region
- Strategic Objective 1.4: Develop and market strategic assets for local economies
- Strategic Objective 1.5: Increase the domestic and global competitiveness of the existing economic base
- Strategic Objective 1.8: Encourage sustainable economic use of natural resources

Goal 2: Strengthen the capacity of the people to compete in the global economy.

- Strategic Objective 2.2: Enhance workforce skills through training and education
- Strategic Objective 2.4: Increase educational attainment and achievement

Goal 3. Develop and improve Appalachia's infrastructure to make the region economically competitive.

- Strategic Objective 3.2: Build and enhance basic infrastructure
- Strategic Objective 3.4: Preserve and enhance environmental assets

II. Infrastructure Development

A highly functioning, up-to-date infrastructure system is part of the foundation required to build a region's economic relevance. Such a system enhances the quality of life available in the region; it provides public utilities needed by commercial interests, supports public health and adds to a region's capacity to attract and retain population. The infrastructure system also connects the region with other regions, enabling more meaningful commercial and social interactions. Recognizing the importance of infrastructure, the Beshear Administration is committed to infrastructure development and expansion to the extent that financial resources are available to fund the activity.

Governor Beshear's Development Plan addresses all categories of the region's vital infrastructure. These include:

- Investing in the region's transportation infrastructure, including the Appalachian Development Highway System.
- Investing in the region's water distribution and sanitary sewage disposal systems.
- Major emphasis on expanding and upgrading the region's telecommunications network. The primary target is expanding access to broadband, high speed internet service.

No goal or objective advanced in this plan takes a higher precedence or is of greater importance than the development of Kentucky's Next Generation Information Highway. It impacts and intersects with all the Governor's development action plan objectives and has potential for far reaching economic, educational, and quality of life benefits for Kentucky and in particular Appalachia Kentucky. In today's economy, high speed internet is no longer a luxury but considered an essential utility. The installation and expansion of high speed "Dark Fiber" broadband accessibility is paramount in the overall policy objectives of SOAR.

Kentucky ranks 46th in broadband availability. Most of the existing broadband in place is inferior in terms of quality, speed and capacity. Nearly a quarter of Kentucky's rural areas have no access to any broadband technology. As previously indicated 5.5% of Kentucky Appalachian households in the 5th Congressional District have access.

As indicated previously in the plan, substantial progress has been made in potentially transforming Appalachia Kentucky into a "fully-connected" region. The project announced by Governor Beshear and Congressman Rogers is unlike any other seen in Kentucky in the last 50 years. This public-private partnership will develop a robust, reliable, fiber "backbone" infrastructure networking all of Eastern Kentucky.

The partnership calls for the Commonwealth to build and own a network of main fiber trunk lines across the state. These lines are referred to as the "middle mile" lines. Once complete, other internet providers, public entities, telecommunication partners or other groups would be able to lease capacity and then proceed to build-out the "last mile," the vital lines that

connect to individual homes and businesses. The economic development potential in allowing “Open Access” to the private sector providers is multi-faceted and immeasurable.

It is important to note the expected short-term and long-term benefits of the new Broadband Super I-Way, particularly in the context of how these developments advance and conform to the Governor’s Plan.

Benefits of broadband are as follows:

- Increased speed and capacity for Internet service: businesses can locate or grow knowing there is a reliable and affordable infrastructure.
- Allows for more opportunities for collaboration across and within research, education, healthcare, public safety and other sectors.
- Lowers costs by eliminating the need for Internet service providers to duplicate investments in network infrastructure; providers can in turn invest in cell phone service or last mile service.

Benefits of broadband to various sectors are as follows:

Economic Development

- Peak workforce during construction will be approximately 600 with a heavy emphasis on local labor.
- The estimated long term direct, indirect and induced employment generated by this project alone is 3,200 skilled jobs.
- Unlimited potential for future job growth through entrepreneurship and attracting new businesses, thanks to reliable, reasonably priced broadband.
- Positions Kentucky to compete not only nationally, but in the global economy.

Education

- Facilitate K-12 schools goals to meet or exceed national policy recommendations.
- Expands research and distance learning capabilities in both secondary and post-secondary venues.
- Supports electronic testing.

Healthcare

- Advances telemedicine.
- Supports Health Care initiatives such as Health Benefits Exchange & Health Information Exchange.

Public Safety

- Provides a foundation for FirstNet (federal public safety network) and Next Generation 911.

Surface transportation has always played a critical role in the future growth, economic development, and the general quality of life for East Kentuckians. Given the regions geography and topography, needed projects are consistently longer to complete and consequently more costly. The Governor has been very responsive to local transportation needs in Appalachia

during his tenure. A significant portion of the Transportation Cabinet's budget is devoted to the region.

As noted in this plan's introduction there are Appalachia counties with significant bridge inventory deficiencies. The Governor has made very significant improvements in that regard by instituting an 80/20 Bridge Replacement program. As it implies, the Transportation Cabinet will invest 80 percent of the total cost of a bridge replacement, if the county will partner by committing the remaining 20 percent. The Governor will continue this successful program as a component of his Development Plan for Appalachia.

The Mountain Parkway also known as the Bert Combs Parkway is the main artery into East Kentucky from the "Golden Triangle" of central Kentucky. The triangle refers to the vibrant commercial, cultural, and health care provider assets that exist in the Lexington region. The previously cited announcement by the Governor of a \$381.7 million investment in reconstructing and extending the Parkway has seismic implications in terms of the transportation of goods and services, potential business investment and enhanced public safety. This project significantly closes gaps and interconnects with the Appalachian Development Highway System (ADHS) corridors enhancing the region's transportation network. The Mountain Parkway improvement/expansion is a priority recommendation of the SOAR Infrastructure Working Group and the Executive Board.

Kentucky has completed six of the eight established corridors in the ADHS. Corridors Q and F remain to be completed. However, a significant section of Corridor Q in Pike County was just completed and opened to the public at a cost of over \$282 million. Governor Beshear is committed to pursuing the completion of the remaining corridors. The Mountain Parkway and continued progress on the ADHS are key elements of the Governor's Appalachian Development Plan.

The Governor has and will continue to devote a significant portion of the State's ARC allocation to utility infrastructure development in the region. A special emphasis will be placed on aging drinking water infrastructure, the few remaining unserved areas and private water sources that have been compromised by mining activities. Of particular interest to the SOAR Infrastructure Working Group is the state of utility infrastructure development in the region's industrial parks. A comprehensive planning study is recommended and has received the Governor's endorsement. In regard to wastewater, there will be special attention paid to projects eliminating "straight pipe" on-site disposal systems and deficient public wastewater treatment facilities across the region. Where the Governor can strategically enhance economic development with a prospective new industry or business, eligible wastewater and drinking water projects will receive high priority. These water and wastewater infrastructure initiatives are of great interest to SOAR and its Executive Board.

As the Beshear Administration pursues the objective of infrastructure development, the effort will address four goals of the ARC's Strategic Plan for Appalachia (2011-2016). These goals and their related strategic objectives are:

Goal 1: Increase job opportunities and per capita income in Appalachia to reach parity with the nation.

- Strategic Objective 1.6: Foster the development and use of innovative technologies

Goal 2: Strengthen the capacity of the people to compete in the global economy.

Goal 3: Develop and improve Appalachia's infrastructure to make the region economically competitive

- Strategic Objective 3.2: Build and enhance basic infrastructure.
- Strategic Objective 3.3: Increase access to and use of telecommunications technology.

Goal 4: Build the Appalachian Development Highway System to Reduce Appalachia's Isolation

- Strategic Objective 4.2: Promote the successful development of the ADHS
- Strategic Objective 4.3: Improve planning to enhance multi-jurisdictional coordination and efficiency.

III. Human Resource Development

The Beshear Administration believes a region cannot advance and develop unless attention is given to developing its human resource. Governor Beshear has been a consistent proponent of human resource development activities throughout his terms. Governor Beshear has a well established record of investing in our Commonwealth's "Human Capital" by employing both state and ARC resources in a myriad of educational, public health, recreational and tourism related projects.

With respect to ARC dollars in FY13 and FY14, the Governor has committed over \$5 million toward a wide range of educational projects. Two of many noteworthy investments that express the concept and spirit of SOAR are the Youth E-Discovery Challenge and the Governor's School for Entrepreneurs. E-Discovery is an entrepreneurial program offered to elementary, middle and high schools under the direction of the University of Kentucky. The Governor's School for Entrepreneurs, under the auspices of the Kentucky Science and Technology Corporation, target only high school students.

Additionally, and very demonstrative of the Governor's commitment to elevating the level of educational attainment in Appalachia, is the new Coal County College Completion Scholarship program. Designed to capture those students who have completed a two-year postsecondary degree at one of our Appalachian community and technical colleges, the program would then provide them a viable pathway to attain a bachelor's degree. Appalachia Kentucky falls far below the national average in the percentage of its people having achieved such a degree. In academic years 2012-13 and 2013-14 the program benefited 759 Appalachian students with an investment of \$1.5 million. A recommitment of \$2 million is provided for the program in the FY15-16 state budget. This program was funded by coal severance tax revenue.

SOAR's business and recruitment and education and retraining Working Groups assembled and engaged in countless hours of listening sessions, analyzing information and data and then utilizing their exceptional collective level of talent and expertise, delivered a body of recommendations and priority action items that are relevant, practical and for the most part achievable.

Some of the key action items that have potential in future public policy development and therefore advance the Governor's Appalachian Plan are:

- To expand on the Governor's efforts to support the E-Discovery Challenge and his School for Young Entrepreneurs, SOAR advocates that our public school system formally embed entrepreneurship and innovative thinking into secondary and postsecondary curriculum.
- Develop a model entrepreneurial training program at the community college level that uniquely supports the region's rich artisan culture while also providing support to current and prospective small business owners.
- Create computer coding committees in the region that deliver applicable training to assist in securing jobs in this emerging field. This will obviously dovetail nicely into the installation and development of the new Broadband initiative.
- To educate and prepare communities relative to the opportunities that the new "Dark Fiber" broadband project will make available.
- Establish an employment training mechanism in the SOAR counties that targets low wage workers and the unemployed who receive Supplemental Nutrition Assistance Program (SNAP) benefits.

As SOAR evolves with respect to implementation of short-term and long-term educational strategies, the Governor will as a part of his Appalachian Development Plan make available state agencies and relevant staff to collaborate and help facilitate ultimate successful outcomes.

The state of the overall health of Kentuckians, and particularly the poor demographic indicators from the people of Appalachia Kentucky, is and will continue to be of great concern to the Governor. It is a top public policy priority and addressing the problem is a major strategic goal of his Appalachian Development Plan.

Those troubling demographic statistics for the 5th Congressional District (Eastern Kentucky) serve as a call to action as observed by both Governor Beshear and Congressman Rogers. East Kentuckians rate of certain diseases are significantly higher than the rest of the nation: 84% higher rates of heart disease, 67% higher rates of lung cancer, 47% higher rates of all cancers, and 26% higher rates of obesity.

In taking account of the serious implications indicated by the above numbers and the recognition that many thousands of Kentuckians were without health coverage, the Governor created "Kynect": Kentucky's implementing program under the National Affordable Care Act. One of the most successful and utilized programs in the country, Kynect, has made it possible for over one-half million Kentuckians to experience the security of having reliable health insurance coverage. One hundred and fifty-five thousand of the newly insured are citizens of Appalachian Kentucky.

A critical component of the Governor's implementation of the Affordable Care Act in Kentucky involved the expansion of Medicaid coverage to newly eligible Kentuckians. It was estimated that 308,000 citizens of our Commonwealth could gain coverage through this expansion. To date, nearly 132,000 Appalachian Kentuckians are now covered. An additional 23,000 have obtained medical coverage through the Kentucky Health Insurance Exchange. The exchange facilitates access to private sector and other insurance products. As a result of

the Governor's resolute leadership 155,000 Appalachians can now experience a better quality of life and have realistic expectations for a more healthy and productive future.

Any discussions regarding improving the state of Appalachia Kentuckian's health will have to center around the Governor's kyhealthnow 2019 Initiatives. This initiative will fully integrate into the goals and strategies of the Governor's Plan. In kyhealthnow the Governor has formally launched a campaign to improve the health and wellbeing of Kentucky's children, families and the workforce. The goal and strategies will be formalized by Executive Order and legislative action.

The kyhealthnow goals will be a frontal assault against the all so familiar maladies that plaque Kentuckians but are more pronounced in the Appalachian counties.

The goals are:

- Reduce Kentucky's rate of uninsured individuals to less than 5%.
- Reduce Kentucky's smoking rate by 10%.
- Reduce the rate of obesity among Kentuckians by 10%
- Reduce Kentucky cancer deaths by 10%.
- Reduce cardiovascular deaths by 10%.
- Reduce the percentage of children with untreated dental decay by 25% and increase adult dental visits by 10%
- Reduce deaths from drug overdose by 25% and reduce by 25% the average number of poor mental health days of Kentucky.

As result of the SOAR initiative, Dr. Thomas Frieden, Director of the Center for Disease Control (CDC), addressed a Health Summit in East Kentucky where he committed the CDC's assistance in confronting the region's health issues. Additionally, he pledged to make available a CDC staff person on site to support the work of SOAR. One of the key recommended action items of SOAR's Working Group was to invite the CDC to form a taskforce to accurately map the current state of health in Eastern Kentucky and to create a strategic plan for the region.

In addition, the group recommended efforts be made to ramp up oral health initiatives to encourage school-based oral health services in every school district in the region. Governor Beshear has provided a foundation for that effort by having recommended the investment of \$1.5 million of ARC resources to establish 12 oral health improvement local coalitions and a demonstration program entitled "Smiling Schools" which offered a preventive education component and most importantly, an effort to apply fluoride varnish to the teeth of children attending elementary school systems in distressed counties. Both initiatives involved collaboration with local public health departments, school system leadership and locally interested parties and health professionals.

In conjunction with those investments, the Governor recommended an additional \$148,122 of ARC funds to facilitate the forming of a partnership involving the Kentucky Department of Public Health and the University of Kentucky, College of Dentistry to create a program to recruit and train Appalachian dentists to enhance competency in the practice of pediatric dentistry. Governor Beshear has recommended investments of over \$4 million in a broad range of health related project in the last three ACR grant cycles. Many of the awards affected the health of Appalachian children.

With this record of critical investments in health and educational improvements, it is the Governor's intent in concert with SOAR that future efforts to address these issues will figure very prominently in Kentucky's Appalachian Development Plan.

Governor Beshear's plan addresses developing the region's human resource through education services, health improvement programs and activities that support building leadership skills and civic engagement. Through his approach, Governor Beshear's plan to support human resource development addresses the following ARC strategic goals and objectives:

Goal 1: Increase job opportunities and per capita income in Appalachia to reach parity with the nation.

- Strategic Objective 1.1: Develop leaders and strengthen community capacity

Goal 2: Strengthen the capacity of the people to compete in the global economy.

- Strategic Objective 2.1: Develop leaders and strengthen community capacity
- Strategic Objective 2.2: Enhance workforce skills through training and education
- Strategic Objective 2.4: Increase educational attainment and achievement
- Strategic Objective 2.5: Expand community-based wellness and disease-prevention efforts
- Strategic Objective 2.6: Increase the availability of affordable, high-quality health care

IV. Supporting Community-Based Development Strategies

The most enduring processes of local development are driven by community involvement and engagement; the most effective are sustainable and continue over time, allowing the development process to fully cycle from concept to action to conclusion. Participation in activities that lead to community-based development strategies builds the vision for a locale, builds support for tactics that underpin the strategies and imparts a sense of ownership in the process.

Governor Beshear's development plan for Appalachian Kentucky includes support for activities that provide leadership development opportunities for residents of the region, help expand civic capacity and encourage the engagement of processes that generate community-based development strategies. This component of his Kentucky Appalachian Development Plan directly addresses the value of participating in social and commercial activities.

Fundamentally, the efforts to create and establish SOAR and then work to endow this entity with a progressive and innovative goals based mission, is one of the most brilliantly conceived and purest forms of community based civic engagement. Obviously, its genesis is the result of some extraordinary public leadership at the highest level: Governor Beshear and Congressman Rogers are "all-in" in their commitment to the region.

From the outset which includes the "Summit," many subsequent listening sessions and currently as they formulate strategies and action plans, the process has encouraged and

solicited “grassroots” citizen input. It is a genuine “bottom-up” approach to formulating public policy and promoting private initiative.

One of the most effective ARC Initiatives for building community capacity is our Flex-e grant program. Governor Beshear has committed significant ARC resources (\$2.7 million) over the previous five years primarily devoted to planning efforts in our distressed Appalachian cities and counties. For our distressed communities, resources to properly plan, engage technical assistance, foster leadership development, or conduct feasibility studies are very limited. These activities are fundamental in developing viable local projects. Many of our most award winning and gratifying projects had their beginning as a Flex-e grant proposal. This building of community capacity by engaging local citizens with an idea and then supporting that community in project development and completion is indeed in the spirit of SOAR and exemplifies the goals and objectives of the Governor’s Appalachian Plan.

Another noteworthy example of promoting community capacity building is the Appalachian Rural Development Philanthropy Initiative (ARDPI). This initiative is a partnership involving the Brushy Fork Institute at Berea College and the Center for Rural Development at Somerset, both private non-profit agencies, and the three established certified community foundations in Appalachia: the Blue Grass Community Foundation, the Foundation for Appalachia Kentucky and the Tri-State Community Foundation. This partnership’s mission is to develop local philanthropy in the distressed counties of Appalachia Kentucky.

At the recommendation of the Governor, ARDPI was awarded \$1 million in ARC funds to launch the initiative. To date, five counties have established a community foundation attached to one of the certified foundations. Ten counties have formed independent foundations and one more certified foundation has emerged from the initiative, the Lake Area Foundation. Thirty-seven distressed counties have participated in training events and well over a 100 estate planning professionals throughout the region have contributed. Developing local private sector community resources to address community needs represents a principle tenet of the SOAR mission. Governor Beshear has demonstrated his commitment to community philanthropy in his support of ARDPI. The Governor’s Development Plan will continue to promote this kind of private sector engagement at the local level to achieve community development goals.

Indicative of SOAR’s perceived relevance and viability, Americorp has dispatched 50 VISTA Volunteers to the SOAR region. Said volunteers have assisted in organizational and administrative functions along with interfacing with local communities in support of the SOAR mission.

The Governor’s Development Plan for supporting community based strategies is truly dynamic, diverse and will foster positive change in the region. The following ARC strategic goals and objectives are represented in his plan to support community-based development strategies:

Goal 1: Increase job opportunities and per capita income in Appalachia to reach parity with the nation.

- Strategic Objective 1.1: Develop leaders and strengthen community capacity
- Strategic Objective 1.2: Diversify the economic base

- Strategic Objective 1.3: Enhance entrepreneurial activity in the region
- Strategic Objective 1.4: Develop and market strategic assets for local economies

Goal 2: Strengthen the capacity of the people to compete in the global economy.

- Strategic Objective 2.1: Develop leaders and strengthen community capacity

Goal 3. Develop and improve Appalachia's infrastructure to make the region economically competitive

- Strategic Objective 3.1: Develop leaders and strengthen community capacity

Kentucky ARC Program Management

Methods used to measure the relative financial resources of project applications:

Kentucky's ARC program is managed within the Department for Local Government (DLG), which is responsible for approval of all Kentucky counties' annual budgets and processing of required annual financial reports from all Kentucky counties, cities and special districts. DLG also manages the Coal Severance Tax Accounts for all coal-producing and coal-impact counties in the state, both single county and multi-county accounts, and has approval authority for most projects submitted for use in the coal counties. The DLG involvement in local government financial accountability establishes a well-informed knowledge of the financial resources of the majority of ARC eligible applicants.

Methods used to ensure an equitable allocation of (non-ARC) state contributions for projects to its Appalachian area.

DLG is part of the General Government Cabinet and reports to the Office of the Governor. Also included in this cabinet is the State Budget Office with its subsidiary the Governor's Office for Policy Management (GOPM). GOPM works with all State agencies in budget planning to ensure equitable resources are provided to all areas of the State including the Appalachian region.

The nine Appalachian Area Development Districts prepare Regional Comprehensive Economic Development Strategies, coordinate regional transportation planning, coordinate workforce development planning programs, etc., that work to ensure that equitable state contributions are available for needed economic development progress within the combined Appalachian region.

STATE POLICIES

I. Project Review and Selection Process

Kentucky utilizes the following system for evaluation and selection of projects for ARC funding assistance.

1. Pre-Application Solicitation Methods

Pre-applications are solicited via a mailing from the ARC Program Manager to the nine ARC area development district (ADD) executive directors. Pre-applications are directed to be mailed to the ARC Program Manager. The boards of directors of the ADDs are composed of all county judge/executives, and mayors of 1st through 3rd class cities of these Appalachian regions. Staff from the ADDs communicates this solicitation to all local agencies including not-for-profit groups within the region. The ARC Program Manager also maintains a list of individuals and agencies such as consultant groups, higher education contacts, etc. requesting notification of the ARC pre-application process. Pre-applications are also posted on the website.

2. Project Pre-Application Screening Process

All pre-applications are screened initially by the ARC Program Manager and staff to determine if they are eligible for funding consideration. This screening process determines the following:

- a. Application completeness, accuracy and project feasibility
- b. Eligibility under the ARC Code and Guidelines
- c. Project consistency with ARC strategic goals and state strategies

3. Project Evaluation/Prioritization

Pre-applications determined to be complete, eligible and feasible are then evaluated and prioritized by an evaluation committee consisting of the following:

- State ARC Alternate, Committee Chair
- DLG Office of Federal Grants, Executive Director
- ARC Program Manager

The following criteria are utilized in evaluation of ARC projects for prioritization:

- a. Degree of Need – Projects that address a severe and immediate problem, such as imminent health threat or loss of jobs, or that capitalize on job creation will be given higher priority than those that do not.
- b. Project Scope and Cost Effectiveness – The number of beneficiaries to be served by the project and the cost per person or household served will be considered in funding level determination.
- c. Degree of Distress – Projects that benefit communities in ARC designated distressed counties will be given priority consideration in the evaluation process.
- d. Degree of Non-ARC Funding Commitment – Projects are evaluated individually as to the degree of non-ARC funding commitments and those projects that contain commitments of other federal and/or state/local funds that reduce the ARC share below the maximum level will receive higher prioritization than those that do not.
- e. Project Readiness – The degree of readiness of a project for implementation if funded (i.e., other funding sources committed, firm cost figures, preliminary or detailed engineering completed, and administrative/organizational responsibilities defined) will be considered in project prioritization.

Prioritization recommendations will be completed for two levels. Priority I projects are those which rank highest in the prioritization process and appear to have non-ARC funding committed. Priority II projects are those which rank high enough in funding priority but which lack complete non-ARC funding commitments or complete project readiness. Priority II projects could be elevated to Priority I if other funds are deemed to have potential to be committed and other Priority I projects fail to achieve approval.

Priority I applicants are asked to submit full applications for submission to ARC for approval. Kentucky's nine Area Development Districts (ADDs) within the Appalachian Region assist local

communities and applicants with application preparation and project development throughout the application selection process.

II. State Matching Requirements and Assistance Limits

ARC participation costs will be limited to 50 percent of project costs, with the following exceptions:

- 1) For projects located in ARC designated distressed counties, the maximum grant will be 80 percent of project costs.
- 2) For projects located in ARC designated at-risk counties, the maximum grant will be 70 percent of project costs.
- 3) ARC assistance for multi-county projects in which at least half the counties are distressed may be increased to as much as 80 percent of project costs; if at least one, but less than half, of the counties are distressed, ARC assistance is limited to the higher of 50 percent or the average percentage applicable to the counties in the project.
- 4) ARC assistance for housing site development projects under Section 207 of the ARDA is limited to 10 percent of project costs.

In addition to meeting the requirements of the ARDA of 1965, all projects for which approval is requested under the Area Development Program must be supported by a demonstration that they will contribute to achievement of one or more of the Commission's strategic goals, except that the state may request, in accordance with Section 7.3 of the Code, approval of a project or projects without such supporting demonstration to take advantage of special development opportunities or to respond to emergency economic distress.

III. Project Monitoring and Progress Evaluation

All ARC projects will be monitored by staff on a semiannual basis to assess progress in meeting scheduled milestones and to identify and resolve any problems that may have occurred in project performance. On-site inspections may be done at midpoint and at project completion to ensure compliance with approved project scope. Interim monitoring will usually be done by telephone. These monitoring reports will be incorporated into a computerized project management system to generate semi-annual project status reports on all ARC funded projects.

IV. Project Cost Under Run Policy

When project cost under runs occur, ARC funds will generally be de-obligated and made available for other eligible projects. A request for proportional reduction will be given consideration in projects with under runs.

EPILOGUE

Not since the creation of the Kentucky Appalachian Commission* in 1998 under Governor Paul Patton's administration has there existed such an acute focus on the Kentucky Appalachian Region. Further, not since the early years of ARC has there been a more concerted and deliberate attempt to address the long-term, seemingly intractable issues facing our Eastern Region of Kentucky.

With the advent of SOAR there now exists an unprecedented public/private partnership led by Governor Beshear and Congressman Rogers; and through their leadership they have attracted an impressive team of Appalachian expertise and substantial federal, state and local resources to array against the formidable problems facing the region. This plan has put forth a number of innovative strategies along with some time-honored approaches to move the region forward into the 21st Century.

Governor Beshear's personal investment of his time, serving as Co-Chair of SOAR, is a testimony to his commitment as our chief executive to use that power and influence to make a difference for the people of Appalachian Kentucky. It is important to note that his contributions will resonate well beyond his term in office.

The Governor's Appalachian Development Plan with SOAR at its core, represents a sense of hope and optimism for the people of East Kentucky. Its substance, rooted in a very broad based public/private strategic plan will elevate the region above its current circumstances. Given the synergy created by SOAR and the solid enduring partnership of the Beshear administration and the Appalachian Regional Commission, we will accept nothing less.

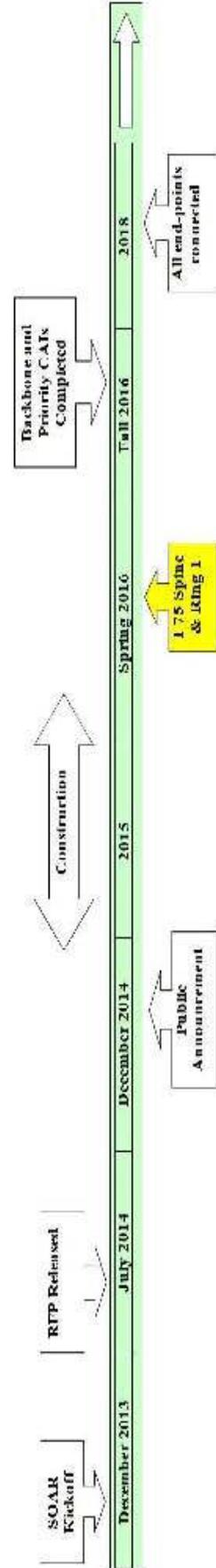
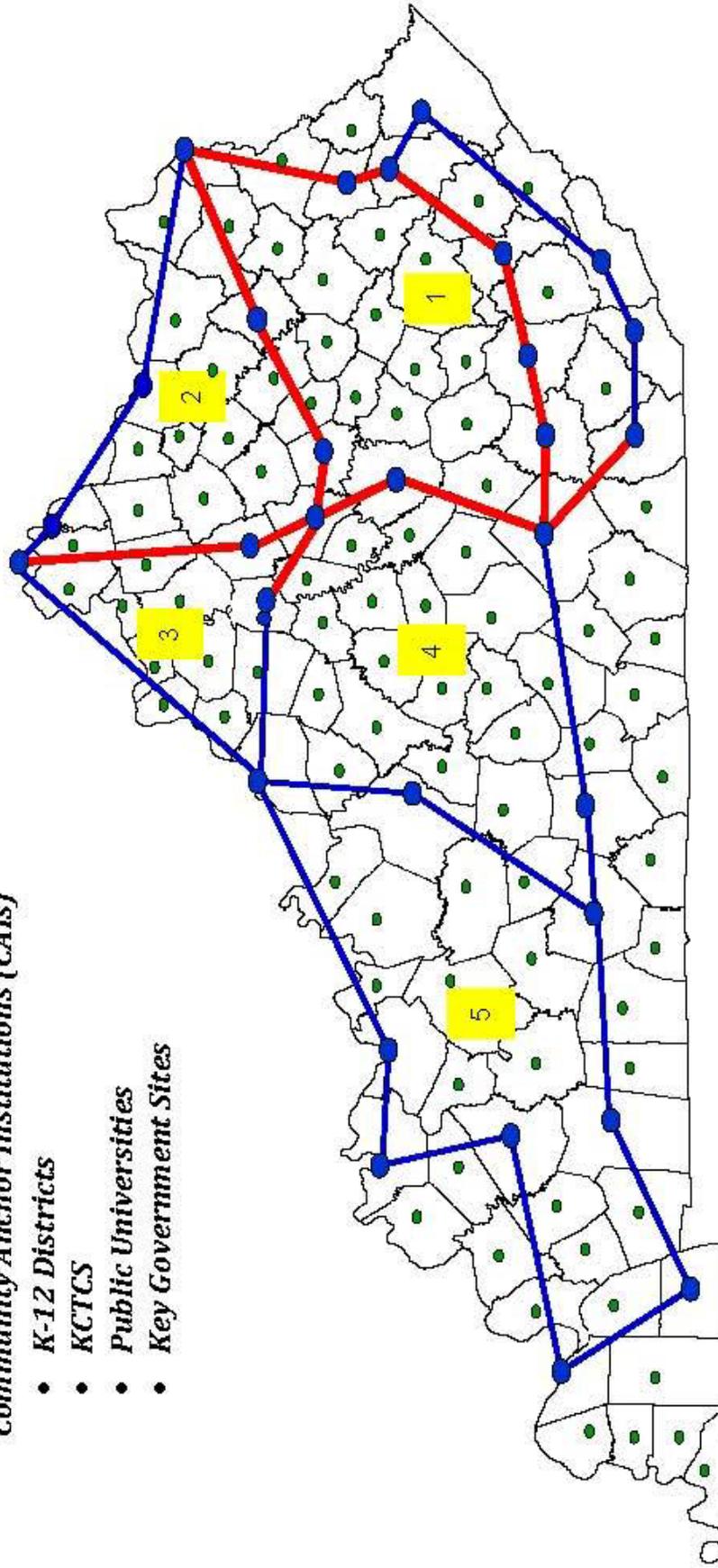
* Created by state statute in 1998 for the purpose of developing a comprehensive plan for the Appalachian Region of Kentucky. The Commission was comprised of 48 members predominately from the public sector. Governor Paul Patton served as the Chair. The statute authorizing the Commission was subsequently repealed in 2005.

Next Generation Kentucky Information Highway/I-Way

Presence in Every County

- Backbone Nodes
- Core Network - To Be Determined in Design Phase
- Community Anchor Institutions (CAIs)
- K-12 Districts
- KCTCS
- Public Universities
- Key Government Sites

- Phase 1 (Completed Spring 2016)
- ✓ I-75 Spine & Ring 1
- Phase 2 (Completed Fall 2016)
- ✓ All CAIs and Core Backbone



STATUS OF CORRIDORS IN KENTUCKY

Appalachian Development Highway System (ADHS) Kentucky Corridors as of September 30, 2014

Summary

Total Number of ADHS Miles:	574.7 miles
Number of ADHS Miles Eligible for Funding:	426.3 miles
Number of ADHS Completed Miles:	402.9 miles
Miles Under Construction:	14.3 miles
Miles in Design/Right-of-Way Stage:	0.9 miles
Miles in Location Study Stage:	8.2 miles
 Total ADHS-Funded Obligations to Date (Federal and State):	 \$1,977.8 million
 Estimated Cost to Complete, Federal and State Funds: (as of September 30, 2011)	 \$812.4 million
Corridor B:	complete
Corridor B1:	complete
Corridor F:	\$441.2 million
Corridor G:	complete
Corridor I:	complete
Corridor J:	complete
Corridor Q:	\$371.2 million
Corridor R:	designed without ADHS funds



Recently completed 6.9 mile section of US 460, ADHS Corridor Q, Pike County, KY



Construction underway on next phase of US 460, ADHS Corridor Q, Pike County, KY

¹ Data Source: Kentucky Atlas & Gazetteer; www.kyatlas.com/kentucky-counties.html

² Ibid

³ Economic Status, Fiscal Year 2014: Appalachian Kentucky; and ARC Code; www.arc.gov

The Appalachian Regional Commission classifies the economic status of counties through a graduated rating. The classes and criteria for each are:

- **Distressed Counties:** Appalachian Counties whose composite index value ranks in the lowest 10% of all counties in the nation;
- **At-risk Counties:** Appalachian Counties whose composite index value ranks above the lowest 10%, but not greater than the lowest 25%, of all counties in the nation;
- **Competitive Counties:** Appalachian Counties whose composite index value ranks in the highest 25%, but less than the highest 10%, of all counties in the nation;
- **Attainment Counties:** Appalachian Counties that have a composite index value in the highest 10% of all counties in the nation;
- **Transitional Counties:** Appalachian Counties not classified as distressed, at-risk, competitive, or attainment are categorized as transitional

⁴ Appalachia Tomorrow. Kentucky's Appalachian Development Plan, 2009-2013

⁵ Census Population Change, 2000-2010: Appalachian Kentucky; www.arc.gov

⁶ The coal counties are Bell, Knox, Clay, Harlan, Leslie, Perry, Breathitt, Knott, Letcher, Floyd, Pike and Martin.

⁷ Census Population Change, 2000-2010: Appalachian Kentucky; www.arc.gov. All population data taken or extrapolated from www.arc.gov unless otherwise noted.

⁸ "Kentucky Population Growth: What Did The 2010 Census Tell Us?" p. 9; Michael Price, Kentucky State Data Center, Research Report Volume 1, Number 1; December 13, 2011

⁹ Base data from Kentucky State Data Center, University of Louisville, 2011

¹⁰ Base data from Kentucky State Data Center, University of Louisville, 2011

¹¹ Ibid.

¹² U.S. Census Bureau, Small Area Income & Poverty Estimates Program, December 2013.

¹³ Appalachian Regional Commission, as cited in Kentucky's Appalachian Development Plan, November 2000.

¹⁴ Ibid.

¹⁵ U.S. Census Bureau, Small Area Income & Poverty Estimates Program, December 2013.

¹⁶ Ibid.

¹⁷ Ibid.

¹⁸ County Economic Status, Fiscal Year 2014: Appalachian Kentucky; Appalachian Regional Commission; www.arc.gov

¹⁹ Ibid.

²⁰ Ibid.

²¹ Education—High School and College Completion Rates, 2007-2011: Appalachian Kentucky, www.arc.gov

²² Education—High School and College Completion Rates, 2007-2011: Appalachian Kentucky, www.arc.gov; Kentucky's Appalachian Development Plan, November 2000.

²³ Beshear Sets Goals To Improve The "Dismal" Health Of Kentuckians; Feb. 20, 2014; www.kentucky.com

²⁴ North Dakota No. 1 In Well-Being, West Virginia Still Last; Feb. 20, 2014; www.gallup.com

²⁵ University of Kentucky, Community and Economic Development Initiative of Kentucky;

www.cedik.ca.uky.edu/data_profiles/healthcare.

²⁶ University of Kentucky, Community and Economic Development Initiative of Kentucky; 2009 data, National Center for Chronic Disease Prevention and Health Promotion, Division of Diabetes Translation;

www.cedik.ca.uky.edu/data_profiles/healthcare.

²⁷ University of Kentucky, Community and Economic Development Initiative of Kentucky; 2005-2011 data, Behavioral Risk Factor Surveillance System; www.cedik.ca.uky.edu/data_profiles/healthcare.

²⁸ University of Kentucky, Community and Economic Development Initiative of Kentucky; 2009 data, National Center for Chronic Disease Prevention and Health Promotion, Division of Diabetes Translation;

www.cedik.ca.uky.edu/data_profiles/healthcare.

²⁹ University of Kentucky, Community and Economic Development Initiative of Kentucky; Small Area Health Insurance Estimates, 2010; www.cedik.ca.uky.edu/data_profiles/healthcare.

³⁰ University of Kentucky, Community and Economic Development Initiative of Kentucky; 2005-2011 data, Behavioral Risk Factor Surveillance System; www.cedik.ca.uky.edu/data_profiles/healthcare.

³¹ www.kyasce.org/pdf/reportcard/roads.pdf.

³² www.kyasce.org/pdf/reportcard/bridges.pdf.

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- ³³ Ibid.
- ³⁴ www.kyasce.org/pdf/reportcard/drinkingwater.pdf.
- ³⁵ www.kyasce.org/pdf/reportcard/wastewater.pdf.
- ³⁶ www.kypride.org/about/progress-report/
- ³⁷ “Digital Nation: Expanding Internet Usage.” February 2011, U. S. Department of Commerce, National Telecommunications and Information Administration, p2.
- ³⁸ Ibid.
- ³⁹ <http://www.broadbandmap.gov/rank/all/congressional-districts/kentucky/percent-population/speed-download-greater-than-3mbps-upload-greater-than-0.768mbps/ascending/>
- ⁴⁰ Ibid.
- ⁴¹ <http://www.broadbandmap.gov/rank/all/county/percent-household-units/speed-download-reater-than-3mps-upload-greater-than-0.768mbps/descending>
- ⁴² Ibid.
- ⁴³ pcworld.com/article/2047530/definition-of-boardband-is-too-broad.html
- ⁴⁴ fcc.gov/guides/getting-broadband
- ⁴⁵ www.broadbandmap.gov/rank/all/congressional-districts/kentucky/percent-household-units/technology-wireline-optical-carrier-fiber-to-the-end-user/ascending
- ⁴⁶ www.broadbandmap.gov/rank/all/county/kentucky/percent-household-units/technology-wireline-optical-carrier-fiber-to-the-end-user/descending
- ⁴⁷ Ibid.
- ⁴⁸ Ibid.
- ⁴⁹ “Digital Nation: Expanding Internet Usage.” February 2011, U. S. Department of Commerce, National Telecommunications and Information Administration, p2.
- ⁵⁰ Ibid, p24.
- ⁵¹ Based on an analysis of data found at the Community and Economic Development Institute of Kentucky, Kentucky County Economic Profiles; <http://cedik.ca.uky.edu/>
- ⁵² Ibid
- ⁵³ Ibid.
- ⁵⁴ Ibid.
- ⁵⁵ Ibid.
- ⁵⁶ Ibid.
- ⁵⁷ Ibid.
- ⁵⁸ Area Development District Occupational Outlooks are available at <https://kylmi.ky.gov/gsipub/index.asp?docid=429>
- ⁵⁹ <https://kylmi.ky.gov/gsipub/index.asp?docid=429>
- ⁶⁰ Kentucky River Area Occupational Outlook to 2018, Kentucky Education and Workforce Development Cabinet; https://www.kylmi.ky.gov/admin/gsipub/htmlarea/uploads/Kentucky_River_2018.pdf
- ⁶¹ Ibid.
- ⁶² Ibid.
- ⁶³ [Energy.ky.gov/Coal Facts Library/Kentucky Quarterly Coal Report \(Q-4 2013 year end\).pdf](http://Energy.ky.gov/Coal_Facts_Library/Kentucky_Quarterly_Coal_Report_(Q-4_2013_year_end).pdf)
- ⁶⁴ Kentucky Living Magazine, November 2013; www.KentuckyLiving.com
- ⁶⁵ Ibid