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The Future of Appalachia

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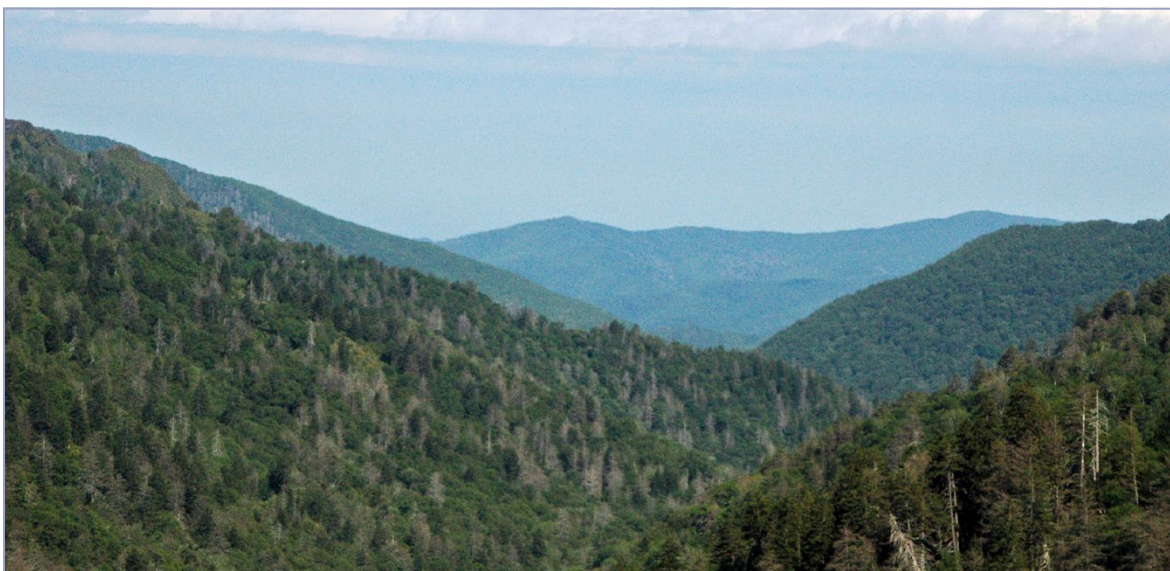
EXECUTIVE SUMMARY

Appalachia has been a byword for American underdevelopment and dysfunction for over a century.

The region has been the target of many government actions over decades attempting to improve its performance. While some of these have produced results, the region remains an underperformer relative to the rest of the country.

Recent trends provide reason for Appalachian optimism, however. One of them is the overall growth of the Sunbelt region, which is now producing organic growth and regeneration in the South Appalachian region, the subregion south of the northern borders of Tennessee and North Carolina. Over 70% of counties in South Appalachia are growing in population, over 80% of counties were adding jobs pre-pandemic, and over half of counties now boast more jobs than pre-pandemic levels. North Appalachia, by contrast, is showing much lower levels of growth, in keeping with the overall anemic trends of the northern United States.

The rise of remote work during the Covid-19 pandemic also provides new opportunities for Appalachia in terms of attracting new residents with either fully remote jobs or hybrid employment that only requires a limited number of days per week in the office. Additionally, remote work opens new job possibilities for existing Appalachian residents to access new employment opportunities, including higher wage jobs.



Blue Ridge (Great Smoky Mountains) James St. John, CC 2.0 License

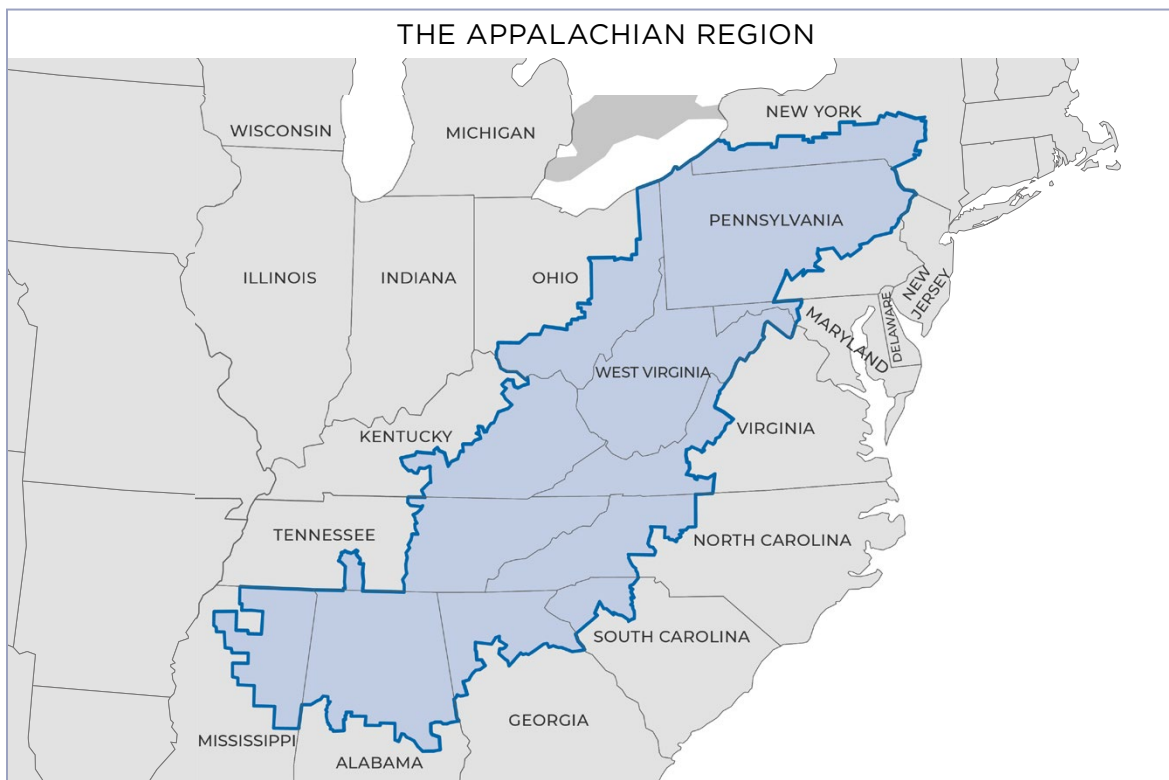
Some communities have already mobilized to take advantage of these programs, such as how West Virginia has created a formal relocation incentives program called Ascend to lure remote workers. Private enterprises are investing as well, including remote work brokers who connect Appalachian residents to remote work opportunities, and also housing developers seeking to capitalize on increased demand. Additionally, migration of hybrid workers to Appalachian counties in exurban areas is already happening organically, as rising housing prices push people out of major metropolitan areas. These developments are still in the early stages and will take many years to reach scale, especially in North Appalachia, but they do provide hope for significant positive change in many communities.

These new trends — sunbelt growth , remote work, combined with traditional assets such as cultural tourism or even high-tech growth — provide reasons for optimism for the future in significant parts of Appalachia.

1. AN OVERVIEW OF THE APPALACHIAN REGION

The Appalachians are a mountain range extending from Alabama north to Canada, with portions commonly known by other names such as the Allegheny, Blue Ridge, or Smoky Mountains.

Appalachia is also a geographic and cultural subregion of the United States. The most commonly used definition of the Appalachian region is the one created by the Appalachian Regional Commission (ARC); a federal agency set up in partnership with states in the region during the 1960s to address underdevelopment in the region. The ARC definition of Appalachia includes 423 counties across 13 states.¹



Appalachian Region as defined by the Appalachian Regional Commission.

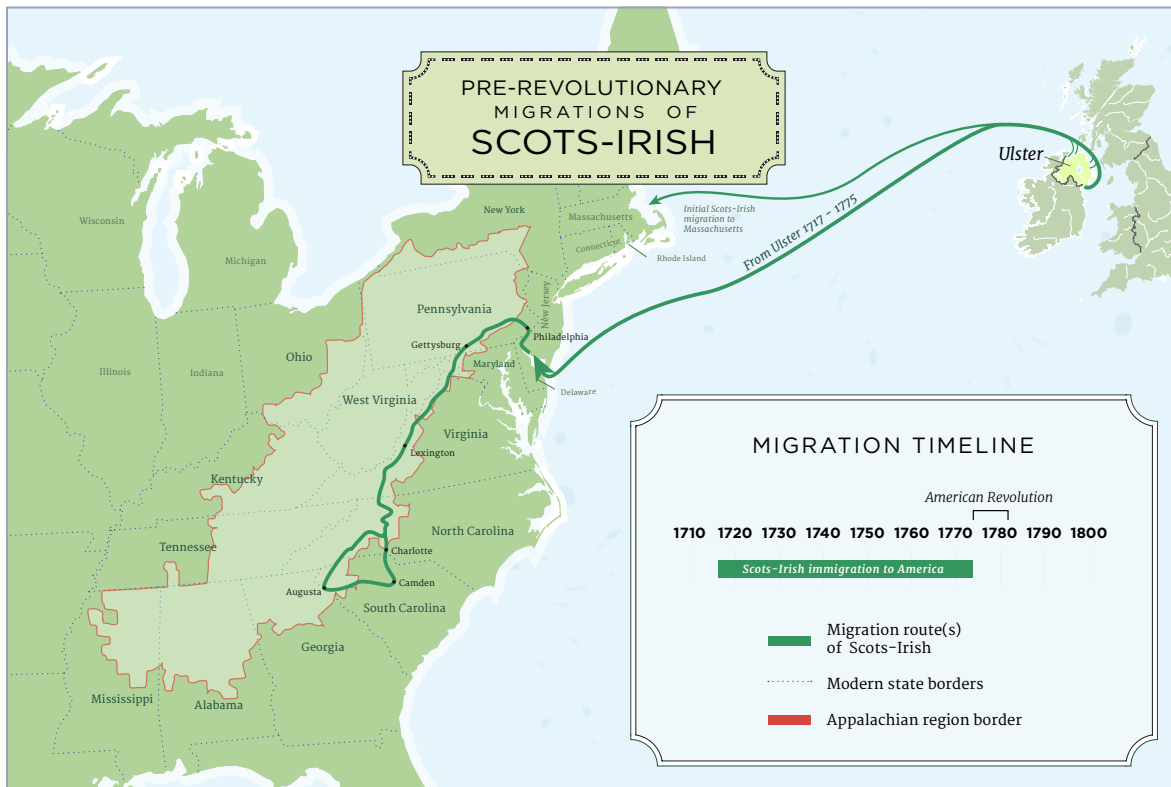
Image credit: Appalachian Regional Commission

The ARC region definition is not perfect. It includes areas such as portions of the Mississippi that do not contain any part of the Appalachian range. It also excludes areas

1. An Overview of the Appalachian Region

such as the Roanoke, Virginia area that are in the Appalachian Mountain range. However, this is the de facto standard region definition, and will be used in this report for statistical purposes.

Demographically, much of Appalachia was originally settled by the Scots Irish, a British people originally from the war-torn borderlands of England and Scotland who moved to Northern Ireland, and from there on to America.² Parts of the Appalachian region still retain a heavy Scots Irish influence, though self-conscious ethnic identity has faded. The Scots Irish have been stereotyped as clannish, suspicious of outsiders, with a tendency to feuding, and a strong martial spirit. While oversimplifying and at times unfair, these stereotypes held an element of truth. The infamous Hatfield-McCoy feud took place in Scots Irish Appalachia while people of Scots Irish origin have been a backbone of the US military.³ They have also been widely stereotyped as “hillbillies”, “briar hoppers” and “ridgerunners”, seen as rude and primitive. One Cincinnati wag suggested when they return to Kentucky “they take off their shoes and pass them to their cousins.”⁴



Pre-Revolutionary Migration of Scots Irish

The Appalachian population has diversified significantly beyond its Scots Irish base. However, it is one of America’s least diverse as we understand that term today. Apart from some counties in the South, Appalachia is overwhelmingly white.⁵

Economically, central Appalachia was rich in natural resources, including coal, oil, and natural gas. The first commercial oil well in the United States was in the Appalachian

1. An Overview of the Appalachian Region

area of Western Pennsylvania near Titusville,⁶ and that state was also home to America's first oil boom. Places such as Eastern Kentucky and West Virginia are famous for coal mining. And today there is significant natural gas production in Appalachia thanks to fracking technology.

This economy was extractive, literally, and figuratively. The coal region has long been characterized by out-of-town land and resource ownership,⁷ abusive labor practices⁸, and environmental degradation, as well as environmental disasters such as the recent derailment and burning of a train carrying toxic chemicals in East Palestine, Ohio.⁹ The coal industry has been in steep decline for some time, with employment falling precipitously after 2011.¹⁰ With the green energy transition, this industry seems set only to decline further.

This raises the degree of difficulty on reinvention even further for the region's hardscrabble coal mining communities.



Child of miner at her home. Kentucky Straight Creek Coal Company, Belva Mine, abandoned after explosion, Bell County, Kentucky. National Archives and Records Administration (NARA), in Public Domain.

Access to natural resources also made Appalachia an early site for heavy industry, most famously steel production in Pittsburgh. Appalachia remains home to a significant amount of heavy industry, which might surprise those unfamiliar with the region. This includes oil refining, chemicals, and more. For example, Shell recently completed a \$6 billion ethane cracker in Monaca, Pennsylvania to convert the region's abundant natural gas into plastics.¹¹

Extraction and industry co-exist uneasily with a growing tourism industry. Appalachia is known for its physical beauty and outdoor activities that range from white water

1. An Overview of the Appalachian Region

rafting to elk hunting.¹² The region also possesses a rich cultural heritage, epitomized by country and bluegrass music, which is also a draw. US 23 is known as the “Country Music Highway,” with communities along it home to hitmakers like Loretta Lynn, the Judds, and Dwight Yoakam, and many more.¹³ There’s also a strong Appalachian tradition of arts and handicrafts. The region has extensive tracts of national parks and national forest land, such as the Great Smoky Mountains National Park. Next to it is Pigeon Forge, home to the Dollywood theme park, another huge tourist draws. Asheville, North Carolina is well-known for its hippie lifestyles and arts, culture, and food scenes; and Bristol, Tennessee home to a legendary NASCAR racetrack.



The Blue Ridge Parkway near Roanoke in Virginia, USA. Image credit: Acroterion, CC 4.0 License

Despite these strengths, the region has long been known for economic underdevelopment, something that remains true today. Much of the Appalachian region is demographically distressed, with low levels of educational attainment, high poverty rates, high rates of drug-related deaths, and significant underemployment. The region’s persistent problems have long been the target of major federal interventions such as the creation of the Tennessee Valley Authority and President Lyndon Johnson’s “war on poverty.” While some problems such as extreme poverty and lack of transportation connectivity have seen significant amelioration, economic distress remains a challenge to this day.

In addition to being a mountain range and an American geographic and cultural region, Appalachia is also an idea.¹⁴ It has long been a place apart, different from the rest of America. Intellectual historian Henry Shapiro described this idea of Appalachia as “a strange land inhabited by a peculiar people, a discrete region, in but not of America.”¹⁵

This idea of Appalachia was heavily shaped by outsiders, particularly literary figures, such as during the heyday of the 19th century local color movement.¹⁶

For generations Appalachia has been seen negatively as backward, but also in positive tones for its preserved folk culture. This is where our stereotypes of Appalachia such it being a land of moon-shining, feuding, lawlessness, and violence come from. Those outsiders encountering this were fascinated, and often inspired to engage with the region in various ways such as attempting to uplift or modernize it, or alternatively to preserve it. For many outside regions the idea of Appalachia seems more real than the actual region itself.

Yet in reality Appalachia was, and is, very much part of the forces shaping America in the past, and today. This includes such things as industrialization, urbanization and even immigration. Many of our ideas about the region are likewise at least partly mythological. For example, when Erica Abrams Locklear, a humanities professor at the University of North Carolina–Asheville, found her Appalachian grandmother’s cookbook with recipes dating to the 1930s, she expected to find primitive mountain dishes made from scratch with natural ingredients, but instead discovered many recipes using standard store-bought ingredients like Kellogg’s Rice Crispies, as well references to modern kitchen equipment of that era.¹⁷ Appalachia was not as disconnected from the wider world as popularly believed.

However, despite the difficulties in understanding created by our ideas of Appalachia, the demographic and economic challenges facing Appalachia are very real as the next section’s statistical review will show.

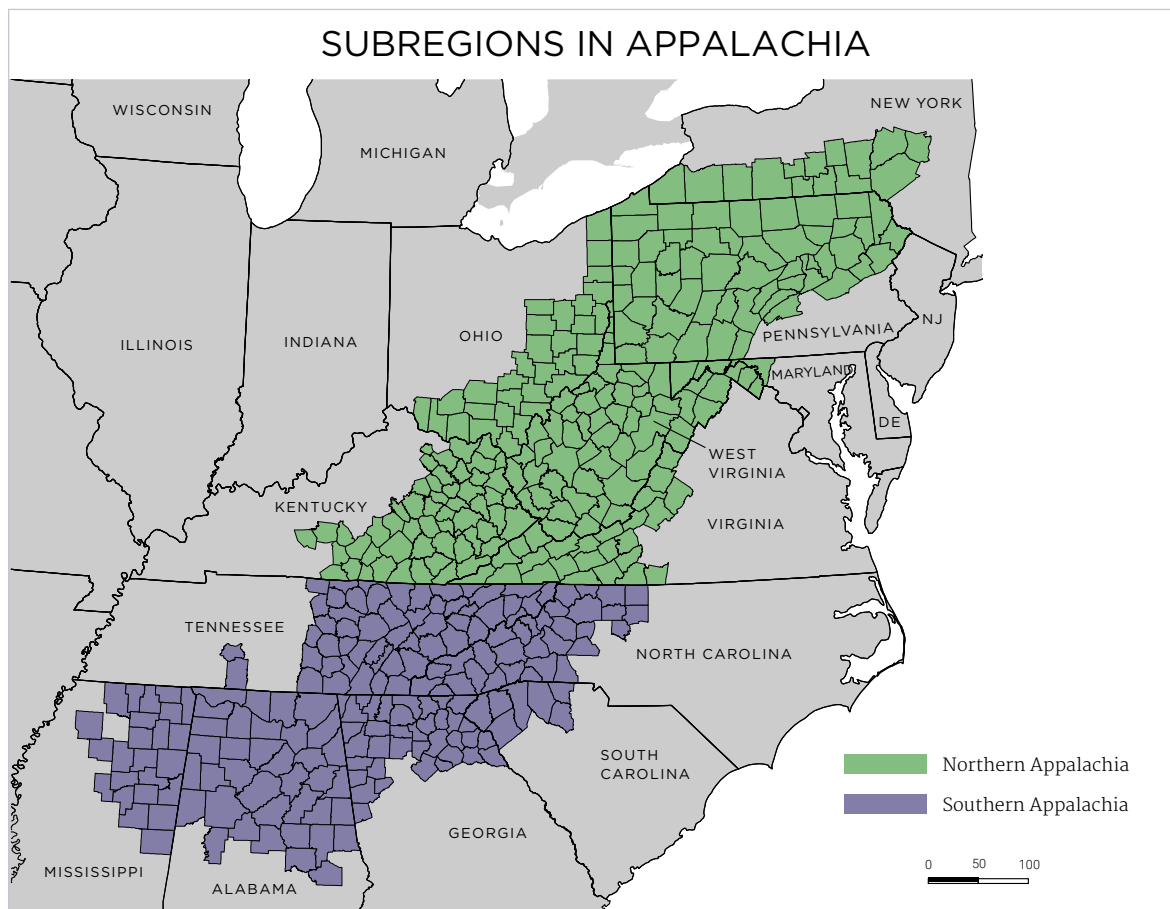
Intellectual historian Henry Shapiro described this idea of Appalachia as “a strange land inhabited by a peculiar people, a discrete region, in but not of America.”

2. APPALACHIA IN DATA

Appalachia has been studied intensively. The Appalachian Regional Commission, among others, produces large amounts of statistical research on the region each year. This includes, for example, the ARC Chartbook¹⁸, with nearly 200 pages of maps, detailed statistical information, and commentary.

There's little value in simply restating the work that others have already done in great and painstaking detail. Instead, we are attempting to add value through proposing a different lens on how to understand and analyze Appalachia, namely, to bifurcate the region into two halves, North Appalachia, and South Appalachia. This division of Appalachia into two basic sub-regions is different from the approach taken by the Appalachian Region Commission, which breaks Appalachia into five sub-regions, two of which span both North and South Appalachia as defined in this report.¹⁹ We also plan to discuss the potential for the region from the rise of remote work, which has become a key driver of the post-pandemic economy.

For the purposes of this report, the boundary between North and South Appalachia is parallel along the northern boundary of Tennessee and North Carolina. North Appalachia contains 235 counties in the states of Kentucky, Maryland, New York, Ohio, Pennsylvania, Virginia,²⁰ and West Virginia. South Appalachia contains 188 counties in Alabama, Georgia, Mississippi, North Carolina, South Carolina, and Tennessee.



North and South Appalachia Subregions

Why this division? As the data below show, there is a material divide in performance between the two regions. Additionally, these divisions map to the real, well-known phenomenon of Sunbelt growth vs. Frostbelt decline. Appalachian people have been moving to cities for decades — some three million between 1950 and 1980 — but in the past largely to big northern industrial cities like Cincinnati, Chicago and Detroit.²¹ Today the big growth in metropolitan areas is largely in the South — with some exceptions like Columbus, Ohio — which is where most job and population growth is taking place. One other critical change has been the nature of the urban growth in these regions, which is very dispersed and, in the age of remote work, extending into traditional rural areas. In some places, as we discuss below, “sprawl” now touches the edges and beyond of once remote Appalachian regions.

2.1 Distressed Counties

The ARC produces composite ratings that classify the health of Appalachian counties, with the worst rating being Distressed. The table below shows the number and percentage of Appalachian counties in each state classified as Distressed:

State and Regions	Total Distressed Counties	Percent of Counties Distressed
North	64	27.2%
Kentucky	36	66.7%
Maryland	0	0.0%
New York	0	0.0%
Ohio	5	15.6%
Pennsylvania	1	1.9%
Virginia	4	16.0%
West Virginia	18	32.7%
South	18	9.6%
Alabama	2	5.4%
Georgia	1	2.7%
Mississippi	8	33.3%
North Carolina	0	0.0%
South Carolina	0	0.0%
Tennessee	7	13.5%
Total	82	19.4%

Note that in all charts, state data is only for the Appalachian portion of that state.

Over a quarter, 27.2%, of North Appalachian counties are Distressed, but only 9.6% of South Appalachian counties. This pattern recurs in other data, with South Appalachia consistently outperforming North Appalachia.

2.2 Population Change

Over the past half century, Appalachia has suffered weak demographic trends. However, recent years have shown some improvement. Between 2010 and 2020, 157 counties in Appalachia, or 37.1% of total counties, had positive population growth, with more than a third of Appalachian counties growing. There was a strong North vs. South Appalachian split, with only 18.3% of North Appalachian counties growing in population but 60.6% of South Appalachian counties doing so. Not only did well over half of South Appalachian counties grow during the 2010s, but over a quarter of South Appalachian counties grew at a rate faster than that of the country as a whole.²²

Since 2020, there's been a positive shift in the number of growing counties in both North and South Appalachia. Between 2020 and 2022, 38.3% of North Appalachian counties added population, as opposed to 72.3% of South Appalachian counties. If sustained, this is good news for the region. South Appalachia as a whole posted significantly better population numbers than the North during this period. North Appalachia lost 17,131 people during this period while South Appalachia added 110,454.²³ Again, this is consistent with the North vs. South divide generally in America.

Population Change		
2020-2022	Change	Percentage Change
North	-17,131	-0.1%
Kentucky	-1,573	-0.1%
Maryland	351	0.1%
New York	1,897	0.2%
Ohio	-6,004	-0.3%
Pennsylvania	-4,810	-0.1%
Virginia	-2,720	-0.4%
West Virginia	-4,272	-0.2%
South	127,585	0.9%
Alabama	21,408	0.7%
Georgia	50,128	1.5%
Mississippi	-2,186	-0.4%
North Carolina	12,227	0.6%
South Carolina	17,256	1.3%
Tennessee	28,752	1.0%
Total	110,454	0.4%

Population change reflects births minus deaths, plus migration (domestic and international). America has been experiencing a decline in birth rates in recent years.²⁴ In Appalachia, only 22 counties experienced more births than deaths between 2020 and 2022.²⁵ Appalachian Georgia was the only state showing natural increase, with nearly 10,000 more births than deaths, illustrating magnetic pull of greater Atlanta.

2. Appalachia in Data

Yet there are some signs of a demographic turnaround. Indeed net domestic migration has been a positive for the region in recent years. In a reversal of previous decades²⁶ 2020, the Appalachian regions of every state except Mississippi have seen positive domestic migration.²⁷

Population Change 2020-2022	Counties with Net In-Migration	Percent of Counties with Net In-Migration	Total Net Domestic Migration
North	138	58.7%	22,563
Kentucky	35	64.8%	7,837
Maryland	3	100.0%	1,623
New York	4	28.6%	2,403
Ohio	24	75.0%	1,461
Pennsylvania	30	57.7%	1,842
Virginia	18	72.0%	4,057
West Virginia	24	43.6%	3,340
South	163	86.7%	299,991
Alabama	29	78.4%	41,908
Georgia	36	97.3%	87,254
Mississippi	10	41.7%	(2,302)
North Carolina	30	96.8%	38,028
South Carolina	7	100.0%	44,310
Tennessee	51	98.1%	90,793
Total	301	71.2%	322,554

There were 301 out of 423 Appalachian counties with net domestic in-migration. But the bulk of those enjoying the strongest in-migration were in the southern end. The total gains for each state in North Appalachia were relatively small, exceeding 5,000 in only one case, Kentucky at 7,837. In contrast every South Appalachian state other than Mississippi saw domestic migration gains in excess of 30,000 people in their Appalachian counties.

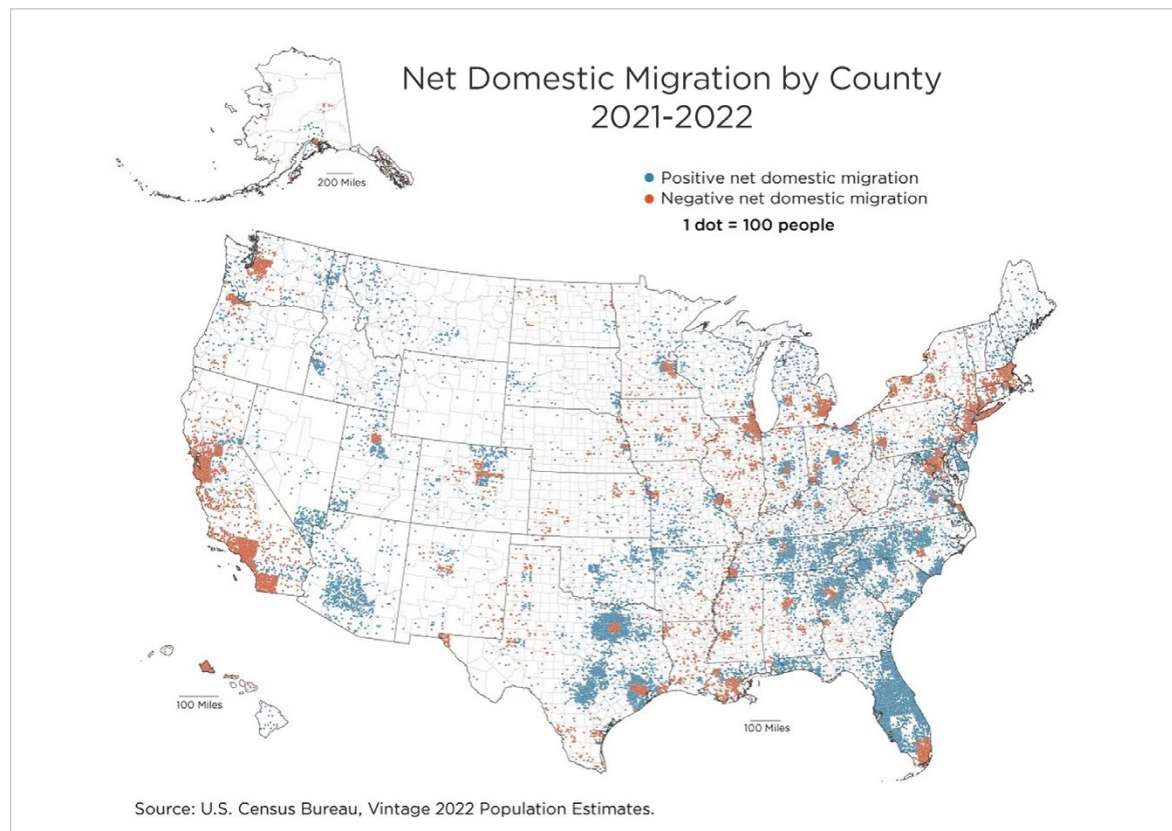
Total gains for domestic migration in North Appalachia totaled 22,563 while South Appalachia gained 299,991. In other words, South Appalachian net domestic migration was over 13 times that of North Appalachia.

Additionally, domestic migration gains did not offset losses from natural decrease in North Appalachia, with an overall loss of nearly 100,000 people. Whereas in South Appalachia, domestic migration gains were more than five times the natural decrease, with an overall gain of almost 250,000 people.

The stark migration difference between North and South Appalachia is clearly visible in this recent Census Bureau map of domestic migration between 2021 and 2022.²⁸

2. Appalachia in Data

This illustrates the core source of the difference between North and South Appalachia.



Migration and population growth have trended towards the South and West for decades. This background trend provides a driver for the Southern states that does not exist in the North. South Appalachian communities can potentially benefit from demographic revival. But in the North, this will be much more difficult, though even here positive domestic migration is a positive sign.

2.3 Immigration and Minority Populations

International migration provides an additional source of potential population growth. However, to date Appalachia attracts relatively few immigrants. Direct immigration is only one source of foreign-born residents. They can also appear as domestic migrants if moving from one place to another within the United States. Some immigrants first move to a traditional port of entry near the borders of the country, then relocate inland. Hence, rather than immigration levels, which may be low in interior locations like Appalachia, the total foreign-born population provides a better measure of the impact of immigration on these communities.

Foreign Born Population 2020-2022	Total Foreign Born
North	353,633
Kentucky	13,920
Maryland	9,219
New York	46,515
Ohio	28,342
Pennsylvania	208,522
Virginia	17,531
West Virginia	29,584
South	849,089
Alabama	113,102
Georgia	435,081
Mississippi	12,023
North Carolina	106,374
South Carolina	78,965
Tennessee	103,544
Total	1,202,722

There are about 1.2 million foreign born residents in Appalachia, or about 4.6% of the total population.²⁹ Appalachia's share of the national population is 7.9% whereas its share of the national foreign-born population is only 2.7%. In looking at foreign born residents we see also the north vs. south split again, with North Appalachia having 353,633 foreign born residents, and South Appalachia having nearly 2.5 times that amount at 849,089.

Given the low levels of foreign-born populations in Appalachia, immigration does not appear to be the primary solution to demographic weakness there, though can be a contributor. Additionally, note that Georgia accounts for about half of the total foreign-born population in South Appalachia. Proximity to or participation in large, diverse, growing metropolitan regions like Atlanta would indicate that immigration is poised to play a much bigger role in those specific locations.

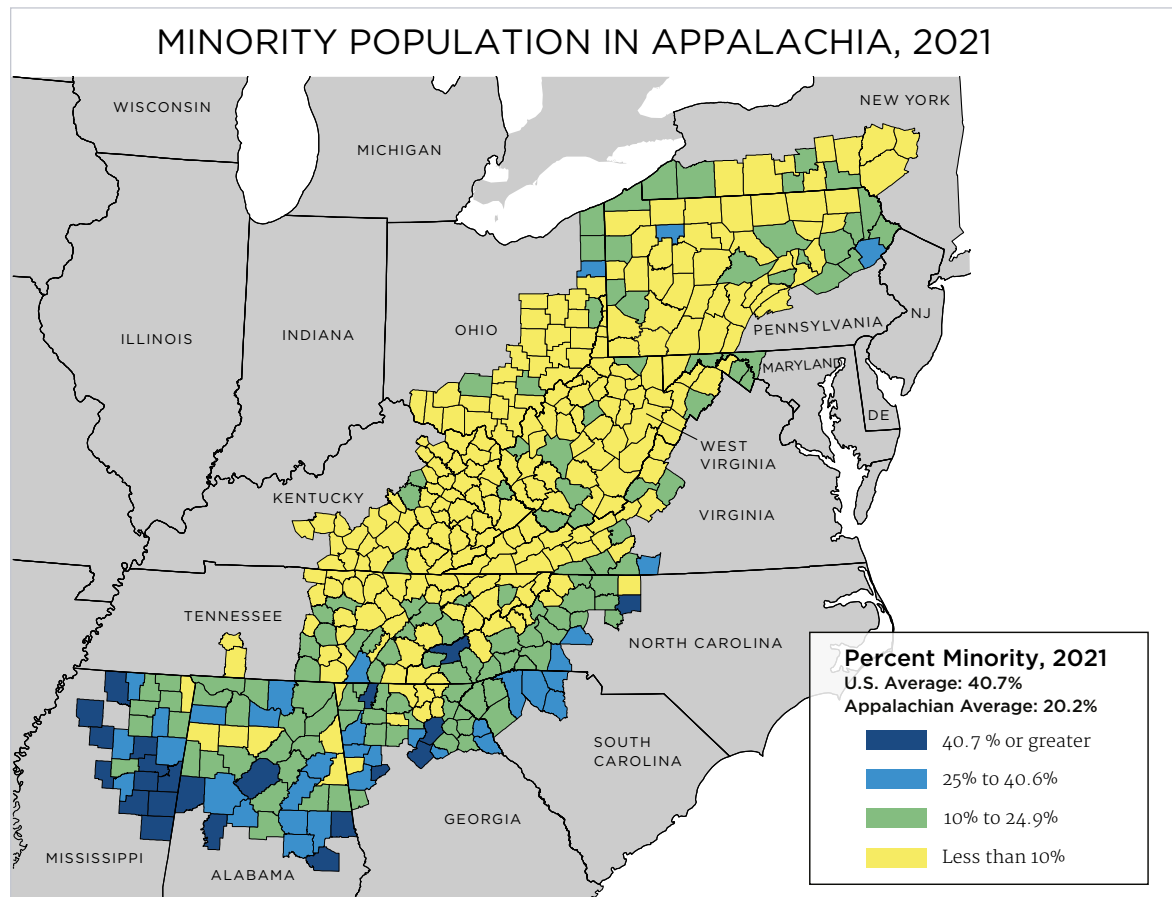
Looking specifically at the Hispanic population, which includes both foreign and domestic born residents, we again see relatively low levels, with a skew to the south. North Appalachia has 357,091 Hispanics and South Appalachia 1,000,077 Hispanics, with 462,694 of those in Georgia. North Appalachia is 2.8% Hispanic whereas South Appalachia is 7.5% Hispanic.³⁰

Looking at other minority groups, the black population of North Appalachia is 554,183 (4.4%) and that of South Appalachia is 1,948,119 (14.6%).³¹ This gap between North and South is likely a result of the historic patterns of larger black population in the rural South.

Although Appalachia is not especially diverse, it has been becoming more diverse, but more slowly than the nation as a whole.³² This means Appalachia is actually becoming less

2. Appalachia in Data

diverse relative to the rest of the United States over time. Diverse populations do exhibit a North-South split, however, with greater levels of diversity in South Appalachia as shown in the ARC map below.



Minority Population, 2021. Source: ARC Chartbook³³

2.4 Economy

The Covid-19 pandemic led to significant job disruptions beginning in 2020. In that light, this report examines job trends both pre- and post-pandemic. Prior to the pandemic, during the 2010–2019 period, 44.7% of North Appalachian counties gained jobs, with a total gain for that region of 6,189. In South Appalachia, 81.9% of counties gained jobs, with a total gain of about 750,046. Again, the north-south divide is evident and stark.³⁴

2. Appalachia in Data

Change in Jobs 2010-2019	Counties with Job Gains	Percent of Counties with Job Gains	Total Job Change
North	105	44.7%	6,189
Kentucky	26	48.1%	-5,250
Maryland	2	66.7%	807
New York	6	42.9%	-12,965
Ohio	21	65.6%	20,136
Pennsylvania	22	42.3%	34,486
Virginia	10	40.0%	-6,584
West Virginia	18	32.7%	-24,440
South	154	81.9%	750,046
Alabama	28	75.7%	121,217
Georgia	31	83.8%	240,259
Mississippi	16	66.7%	21,394
North Carolina	26	83.9%	89,964
South Carolina	7	100.0%	122,534
Tennessee	46	88.5%	154,678
Total	259	61.2%	756,235

In the period since 2019, only 23% of North Appalachian counties have shown job growth, with a total job loss since the pre-pandemic period of 227,049. In contrast, South Appalachia, 54.8% of counties have posted job growth, for a total regional net gain of 66,377.

Change in Jobs 2019-2022	Counties with Job Gains	Percent of Counties with Job Gains	Total Job Change
North	54	23.0%	-227,049
Kentucky	20	37.0%	-6,214
Maryland	0	0.0%	-4,417
New York	0	0.0%	-26,504
Ohio	9	28.1%	-18,052
Pennsylvania	3	5.8%	-139,208
Virginia	5	20.0%	-7,714
West Virginia	17	30.9%	-24,939
South	103	54.8%	66,377
Alabama	15	40.5%	1,798
Georgia	29	78.4%	49,880
Mississippi	9	37.5%	-5
North Carolina	13	41.9%	-6,307
South Carolina	3	42.9%	5,859
Tennessee	34	65.4%	15,152
Total	157	37.1%	-160,672

2.5 Other Social Indicators

The Appalachian region also illustrates significant stress levels in other social indicators. For example, Appalachia has low educational levels. About 95% of counties in Appalachia have college degree attainment rates lower than the national average of 32.9%. This affects both North and South Appalachia. Two thirds of Appalachian counties, 67.1%, have very low college degree attainment rates below 20%, with North Appalachia (71.5%) scoring slightly worse on this metric than South Appalachia (61.7%).³⁵

College Degree Attainment (2016-2020 ACS)	Counties with College Degree Attainment < 20%	Percent of Counties with College Degree Attainment < 20%
North	168	71.5%
Kentucky	49	90.7%
Maryland	1	33.3%
New York	2	14.3%
Ohio	29	90.6%
Pennsylvania	27	51.9%
Virginia	18	72.0%
West Virginia	42	76.4%
South	116	61.7%
Alabama	27	73.0%
Georgia	16	43.2%
Mississippi	19	79.2%
North Carolina	11	35.5%
South Carolina	2	28.6%
Tennessee	41	78.8%
Total	284	67.1%

In an economy increasingly geared to high skill employment, the very low levels of college degree attainment in Appalachia limits the ability of its people and communities to access higher paying economic opportunities. Poverty levels are also high, with 42.5% of Appalachian counties with a child poverty rate exceeding 1.5 times the national average:³⁶

Child Poverty (2016-202 ACS)	Counties with Child Poverty Rate > 1.5X US Average	Percent of Counties with Child Poverty Rate > 1.5X US Average
North	81	34.5%
Kentucky	41	75.9%
Maryland	0	0.0%
New York	3	21.4%
Ohio	10	31.3%
Pennsylvania	0	0.0%
Virginia	5	20.0%
West Virginia	22	40.0%
South	56	29.8%
Alabama	10	27.0%
Georgia	9	24.3%
Mississippi	12	50.0%
North Carolina	5	16.1%
South Carolina	1	14.3%
Tennessee	19	36.5%
Total	137	42.5%

Appalachian counties are also over-represented in the ranks of those with drug overdose deaths. Out of the top 200 counties in the United States for overdose death rates, half of them (100) are in Appalachia.³⁷ These counties skew heavily to North Appalachia, with 80 North Appalachian counties represented in the top 200 vs. only 20 counties in South Appalachia.

2.6 Summary

In summary, Appalachia has significant challenges in terms of demographic health and economic growth. However, there is a significant gap divergence between North and South Appalachia. Nearly three quarters of South Appalachian counties are growing in population, domestic migration is stronger to that region, and it has higher levels of diversity. Over half of its counties are adding jobs. With the exception of Mississippi, a state that has no territory actually in the Appalachian Mountains, South Appalachia appears to be organically beginning to grow and redevelop. While not without its problems such as low educational attainment, nor without its distressed and isolated communities, this area has the background conditions for positive future outcomes.

Nearly three quarters of South Appalachian counties are growing in population, domestic migration is stronger to that region, and it has higher levels of diversity.

2. Appalachia in Data

By contrast, North Appalachia is much more moribund, similar to the Northern United States as a whole. There's been a persistent inability to produce a demographic and economic turnaround in the Northern States even outside of Appalachia, despite the major differences in history, geography, economy, and party alignment between various states.³⁸ Civic ambitions and expectations should remain modest relative to South Appalachia.

3. APPALACHIAN OPPORTUNITIES

Appalachian growth has long been hobbled by well-known challenges, from low education levels to over-dependence on resource extraction.

Yet it also possesses assets that already pay economic dividends, and which could continue to be developed, such as its natural beauty, cultural resources, historic towns, and in select places even knowledge economy assets.

Two new phenomena have a high if uncertain potential for promoting growth in Appalachia: remote work and deurbanization. Remote work is the rise of full or part time working from home in the wake of the Covid-19 pandemic. Deurbanization is a related trend, driven both by the rise of remote work and rising housing prices in many traditional metropolitan areas.

Appalachia is poised to potentially benefit from these new trends. It has the high amenity outdoor recreation areas often sought by remote workers. And while Appalachia does not have many large cities,³⁹ there are a number of high-growth, high-income metropolitan areas adjacent to it that provide the opportunity for parts of the region to benefit from deurbanization.

There are already a number of communities in the Appalachian region benefitting from traditional assets or from these new trends. This is especially the case in South Appalachia, but there are positive examples in North Appalachia as well.

3.1 Traditional Assets

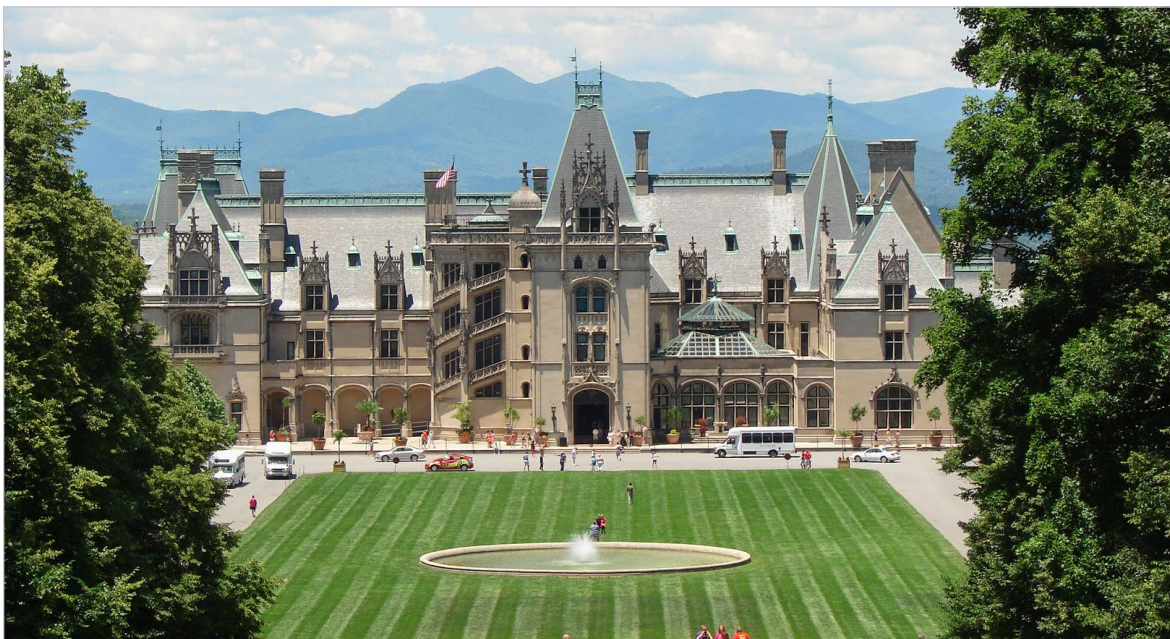
Several Appalachian cities have achieved a significant reinvention of their economy. The poster child for this is Pittsburgh, the largest metro area entirely contained within Appalachia. Pittsburgh boomed as a center of heavy industry, particularly steel, and deindustrialization hit the city hard in the late 1970s and 1980s. However, Pittsburgh's industrial wealth endowed important educational and other institutions, especially Carnegie Mellon University, that have become globally elite centers of knowledge production. CMU's leading-edge position in computer science and robotics have attracted marquee firms from across the technology spectrum, such as Google, Apple, and Amazon,⁴⁰ and also startups like Duolingo. Pittsburgh's population has continued to decline as a result of legacy factors, but its economy is being reinvented for the modern age. Similarly, Huntsville, AL has experienced strong growth as a result of its longstanding connection to the US space program.⁴¹ Toyota also has a manufacturing plant in the

3. Appalachian Opportunities

region.⁴² Knoxville, TN, home to the University of Tennessee, has also been booming. Chattanooga, TN, another older industrial city, has reinvented itself and is also growing after having cleaned up its environment, implementing one of America's most famous downtown renaissances and building out a municipal 10 gigabit internet for the city.⁴³ Another major growth area is around Columbus Ohio which has seen growth both to its core and in its extensive periphery, which washes into the state's Appalachian counties ([see sidebar](#)). None of these cities is commonly thought of as Appalachian. This shows the lingering effects of Appalachia as an idea. The presence of thriving high tech cities in the region, conflicts with our idea of Appalachia, but their economies are extending increasingly into their rural periphery which is more like what we expect of the region.

While coal mining is in structural decline, natural resource extraction and heavy industry remain important to the Appalachian economy. In particular, natural gas from shale has become big business in Pennsylvania, along with Ohio and West Virginia. Commercial land in the Ohio River corridor has been rising in value, showing that the market believes industrial demand will remain strong.⁴⁴ Environmental regulations and anti-fossil fuel and anti industrial activism area present an ongoing risk to Appalachia's natural resource and industrial base. New York state has banned fracking, for example.⁴⁵ By contrast, Pennsylvania and Ohio have been benefiting by taking advantage of their shale gas resources.

Cultural assets have paid off for other communities in Appalachia. Asheville has long drawn tourists and new residents with its location nestled in the mountains, hippie artistic vibe, and attractions like the Biltmore Estate, America's largest private residence. Today, it retains much of that flavor, while adding a higher end gloss, such as through partnerships with international jet set magazine *Monocle*,⁴⁶ a nationally respected food scene, and businesses like fashion shoe company Opie Way and renowned synthesizer company Moog. Asheville is a boomtown that keeps its identity firmly and explicitly Appalachian.



Biltmore Estate, Asheville, North Carolina. Image credit: 24DupontChevy, CC 4.0 License

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In West Virginia, two small towns, Davis, and Thomas, have become major destinations thanks to an influx of artists who catalyzed the creation of galleries, restaurants, and shops.⁴⁷ Abingdon, VA has historic buildings dating to the 1700s, the lavish Martha Washington Inn, and the historic Barter Theater, the official state theater of Virginia.⁴⁸ The cultural treasury of Appalachia offers significant opportunities its communities can continue to build on.

A number of historic, intact small towns in Appalachia have also been working to revitalize themselves around their town centers and nearby recreational amenities. Marietta, Ohio, along the banks of the Ohio River, was the first American settlement in the Northwest Territory. Its Main St. is thriving with a collection of eclectic businesses, including some that very interesting and unique. One is JustAJar Design, which specializes in genuine woodcut printing and has a national clientele.⁴⁹ Another is the high-tech app company Spoken, whose AI powered software helps non-verbal users with conditions like aphasia or autism to communicate.⁵⁰ Downtown Marietta is also home to the Marietta Adventure Company, a bike and kayak store owned by Ryan Smith, a native who returned to open the shop after five years in Lake Tahoe. Smith and other local outdoor enthusiasts established hundreds of miles mountain biking trails in the area.⁵¹



Aerial photo of Marietta, Ohio. Image credit: Daniel Busch (EpicEar Production)

On Appalachian Ohio

When people think of Ohio, they don't often think of Appalachia, yet 32 Ohio counties, primarily in the Southeast of the state, are part of the Appalachian region. Unlike the flat cornfields in other parts of Ohio, Appalachian Ohio was never glaciated and remains largely forested foothills of the Appalachian Mountains. Pioneer towns like Athens, Cambridge, Chillicothe, Coshocton, Marietta, Portsmouth, Steubenville, and Zanesville have managed to retain much of their historic downtowns even as they are approaching their 250-year anniversaries.

The region's economy was originally built on natural resource extraction industries such as timber, iron ore, clay, coal, sand & stone, natural gas, and oil; the region did not yield the same economic diversity as the rest of Ohio. That's since changed. While natural resources, particularly natural gas from shale, remain important, today the region boasts a diversity of industries and activities including testing jet engines, assembling heavy trucks, and manufacturing cryogenic freezers, hardwood furniture, a broad array of food products, plastic resins, as well as a variety of metals, alloys, and fabricated products. Soon, former weapons-grade uranium will be processed into less radioactive fuel in southern Ohio to power small modular reactors.



Image credit: AMG Vanadium

There has been non-industrial growth as well. Ohio University – the first university in the Northwest Territory – was established in Athens in 1804 and has achieved the Carnegie R1 Research University designation for its high levels of research. It has spun out several tech companies. The region's natural beauty and intact historic towns, along with remote work and broadband buildouts are starting to reverse generations of population loss. Perhaps the region's greatest opportunity is the fact that it borders the booming Columbus metro region to the south and east. Long a source of labor, resources, and energy, Appalachian Ohio is poised for rediscovery in the new economy. There are many reasons to be bullish in the future.

JobsOhio, Ohio's private economic development corporation, has been playing a key role in this transformation, with 25 of Ohio's Appalachian counties represented by Ohio Southeast

3. Appalachian Opportunities

Economic Development (OhioSE). Ohio and JobsOhio have launched several strategic initiatives to advance the region. Over \$42 million has been invested in site and building development, and OhioSE has launched a large sites initiative to prep for mega projects. The JobsOhio Inclusion grants have assisted 48 small business expansions in distressed areas. The region has received several grants to develop office and co-working spaces in historic downtowns while also supporting mixed-use developments that provide the place-making expected by young professionals. JobsOhio has also supported transformational investment projects by companies like Intel and Honda-LG Energy in adjacent areas will boost Appalachian Ohio as well.

– Mike Jacoby, President, OhioSE

Pikeville, Kentucky is another thriving small town.⁵² It has a picturesque downtown that include the University of Pikeville, which, unlike all too many other colleges, is seeing strong enrollment growth.⁵³ An array of interesting Eastern Kentucky destinations is also easily reachable from Pikeville, such as Butcher Hollow, birthplace of Loretta Lynn. Many additional towns and smaller cities in the region have historic Main Street assets that can be developed for renewal, including Ashland, Kentucky; Marion, Virginia; and Bristol, Tennessee/Virginia. Bristol's Main St. is famously the state line, with one side in Tennessee and the other in Virginia.

And more purely rural areas of Appalachia have many recreational and outdoor assets as well, including white water rafting in places like West Virginia, the famed Appalachian Trail and Blue Ridge Parkway, hunting and fishing, rock climbing and other hiking. In any number of Appalachian places, rivers running through valleys in the mountains are reminiscent of the areas along the Gallatin River near the resort city of Bozeman, Montana.



View overlooking the Catawba Valley from the McAfee Knob overlook along the Appalachian Trail.

Image credit: SomethingOriginal, CC 3.0 License.

It should be noted that while Appalachia is stereotyped as a conservative area, Appalachian states do not score especially well in tax climate ratings. In most cases, low business taxes are not an Appalachian asset. In the Tax Foundation's Business Tax Climate Index,⁵⁴ only one Appalachian state, North Carolina, is in the top ten, and the Appalachian states Alabama, Maryland, and New York, are in the bottom ten.

Rank in Tax Foundation 2023		Rank in Tax Foundation 2023	
State	Business Climate Index	State	Business Climate Index
North Carolina	10th	Georgia	32nd
Tennessee	14th	Pennsylvania	33rd
West Virginia	20th	Ohio	37th
Virginia	26th	Alabama	41st
Mississippi	30th	Maryland	46th
South Carolina	31st	New York	49th

Policy Implications for Traditional Assets

1. Oppose attempts to ban or significantly restrict extraction of natural gas by hydraulic fracturing, particularly at the state level. New York's fracking ban is a cautionary example.
2. Oppose inappropriately onerous environmental regulations on heavy industry in the region.
3. Ensure appropriate siting and regulation of extraction and industry in order to better develop the region's outdoor recreation and tourism potential.
4. Enhance state programs to remediate environmental contamination of legacy mining and industrial sites, prioritizing first those affecting human health, then those negatively affecting the development of recreation and tourism.
5. Clean up trash in high potential recreation areas, such as along rivers.
6. Continue to invest in additional trails for hiking and bicycling, and other recreation amenities.
7. Ensure sufficient tourism infrastructure such as a sufficient quantity of quality hotel rooms to meet demand.
8. Protect residents from negative consequences to tourism growth, particularly home prices inflation, such as by limiting residential conversions to shore term rentals (AirBnB) and adjusting property tax regimes to facilitate significantly higher taxes on non-homestead property (as is currently done in Michigan, for example).
9. Enhance state programs for marketing tourism in the region, focusing on authentic Appalachian identity and avoiding generic "creative class" type images. Collaborate on interstate cultural corridors around regional attractions such as country music historic sites.
10. Enhance state programs to provide financial support for historic preservation in small town of Appalachia.

3.2 Remote Work and Emerging Opportunities

The societal response to the Covid-19 pandemic unleashed changes to American business patterns that appear to be long lasting, possibly permanent. One of these is the rise of remote work. Economist Matthew Kahn predicts that in the future as much as 35% of the workforce will work from home at least part time.⁵⁵ Additionally, the share of workers working from home already had been increasing for many years even prior to the pandemic, suggesting underlying fundamentals in favor of remote work.⁵⁶

Remote work severed the link between place of residence and place of work. This allowed many people to relocate to places they found more desirable, whether for amenity, affordability, or even cultural or political reasons. Some jobs are not fully remote but are what are called “hybrid” positions in which employees can work from home part time, such as 2–3 days per week. The hybrid model does not allow for complete geographic flexibility, but does enable workers to rethink where they live, such as by electing to live a greater distance from their workplace in an exurban location. Extended commutes become more tolerable when they are only undertaken for a limited number of days per week.

Remote work offers significant potential resident attraction and growth opportunities for Appalachia. There are three major dimensions of this opportunity, each of which is distinct and will require different strategies and capabilities to support.

1. Attracting fully remote workers, a group with complete geographic flexibility.
2. Attracting hybrid remote workers, a group with partial geographic flexibility
3. Connecting existing Appalachian residents to new remote work positions.

3.2.1 Attracting Fully Remote Workers

Much of the recent activity by places in trying to take advantage of the potential of remote work has been in communities attempting to lure people who are employed in full-time remote positions to move there. The most well-known of these initiatives is likely Tulsa Remote, which offers remote workers \$10,000 to relocate to the city. Reportedly, over 2,000 people have taken advantage of this offer.⁵⁷

Some Appalachian communities, particularly those with high levels of natural and outdoor amenities understandably see attracting full time remote workers as a possible source of new, higher income residents, much as has occurred in the Mountain West. Appalachia has the advantage of being much more affordable than many Western communities, which have seen significant increases in real estate prices. This would seem to make it an ideal place for attracting a certain profile of remote worker who values outdoor life at an affordable price.

West Virginia is one of the Appalachian states looking to attract full time remote workers. It created a program called Ascend WV, similar to Tulsa Remote to attract them.⁵⁸ Ascend WV provides relocating remote workers with \$20,000 worth of incentives. This includes

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\$12,000 in cash, a year of free recreational activities and outdoor gear rental, a free co-working space, social programming to help newcomers get connected in their new communities, as well as various professional development capabilities.

Ascend WV was carefully constructed to maximize attracting residents who will stay in West Virginia for the long term. The Ascend program partnered with five specific communities in the state – New River Gorge, Morgantown, Greenbrier Valley, the Eastern Panhandle, and Greater Elkins – to ensure that the receiving communities were prepared and equipped to assimilate program participants. The selected destination communities went through an extensive community readiness process to prepare them for the arrival of program participants.



High Street (US 119) between Walnut and Fayette Streets in downtown Morgantown, West Virginia.

Image credit: Andre Carrotflower, under CC-BY-SA 4.0 License.

Demand for Ascend WV has been overwhelming, with over 25,000 applicants. Less than 1% have been accepted, as the program managers wished to be very deliberate in launching the program. Selected participants must already have a full-time remote work job and show characteristics that make them likely to become long term residents of West Virginia, such as a strong interest in outdoor recreation activities. Approximately 145 people have relocated so far as part of this program. About 15–20% of them were returnees to West Virginia, the rest complete newcomers to the state. As with Tulsa Remote, Ascend WV has been philanthropically funded by a \$25 million donation from former Intuit CEO Brad Smith.⁵⁹

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Eastern Kentucky's Appalachian region has also looked to start luring remote workers. SOAR,⁶⁰ a non-profit chartered with community development and economic growth in the region, has developed marketing materials and community resources to help local communities lure remote workers. They created a web site called EKY Remote⁶¹ to tout the region's amenities, especially its high-quality outdoor recreation opportunities. It offers to help prospective residents get socially connected, and access free entrepreneurship services along with other available resources. SOAR has also established a pilot incentive program in conjunction with the talent attraction company MakeMyMove. The program offers a \$5000 cash payment to relocatees, with an additional \$2500 for anyone who moves with a spouse that works in education or healthcare, plus additional benefits. SOAR hopes to see 25 relocations through this pilot program.



Burkesville, Kentucky Town Square.

Image credit: [Ridgerunner, USA](#)

There are also private sector organizations seeking to take advantage of remote work demand in Appalachia. One is the real estate development firm Ridgerunner USA.⁶² Ridgerunner is developing multiple sites Burkesville, Kentucky in Cumberland County, including a parcel with an initial phase that includes 30 lots along the Cumberland River. Each lot will be provided with utilities and gigabit fiber internet. The target market is a mix of both second homeowners and remote workers. “Five million people have relocated since Covid,” Ridgerunner founder Mark Abbotoy notes. His firm hopes to tap into that flow. This shows profit seeking investors, not just government or philanthropic backed ventures, see returns to be had from remote work.

3.2.2 Attracting Hybrid Workers to Exurban Locations

Hybrid workers are those who are required to be physically present in a workplace part time, typically two or three days per week. Hybrid workers are still geographically bound in where they can live, but with a limited number of days per week commuting to a worksite can potentially choose to live further from their work than they would otherwise do. This has led to growing suburbanization within metro areas, and also deurbanization to the hinterlands beyond the suburbs. Economists Arjun Ramani and Nicholas Bloom labeled these moves “the donut effect.”⁶³

This suggests that Appalachian counties that are in the exurban fringe of a major metropolitan area, or somewhat beyond the traditional commuting zone, are best positioned to gain from attracting hybrid workers. Major metropolitan regions have a large labor force to potentially draw from. Additionally, many major metropolitan areas have experienced significant increases in their real estate prices, which provides additional encouragement to prospective home buyers to look farther afield in order to find an affordable home.

One Appalachian area already beginning to profit from this shift is Chillicothe, Ohio. Chillicothe is a city of 22,000 people approximately 50 miles south of Columbus, a drive of slightly over one hour.⁶⁴ The Columbus metropolitan area, which is predominately not part of Appalachian Ohio,⁶⁵ has been the state’s star performer, accounting for virtually all population growth in the state. During the 2010s, the Columbus metro area grew by 12.5%, compared to only 7.4% nationally. The rest of Ohio was essentially flat in population during that time.⁶⁶



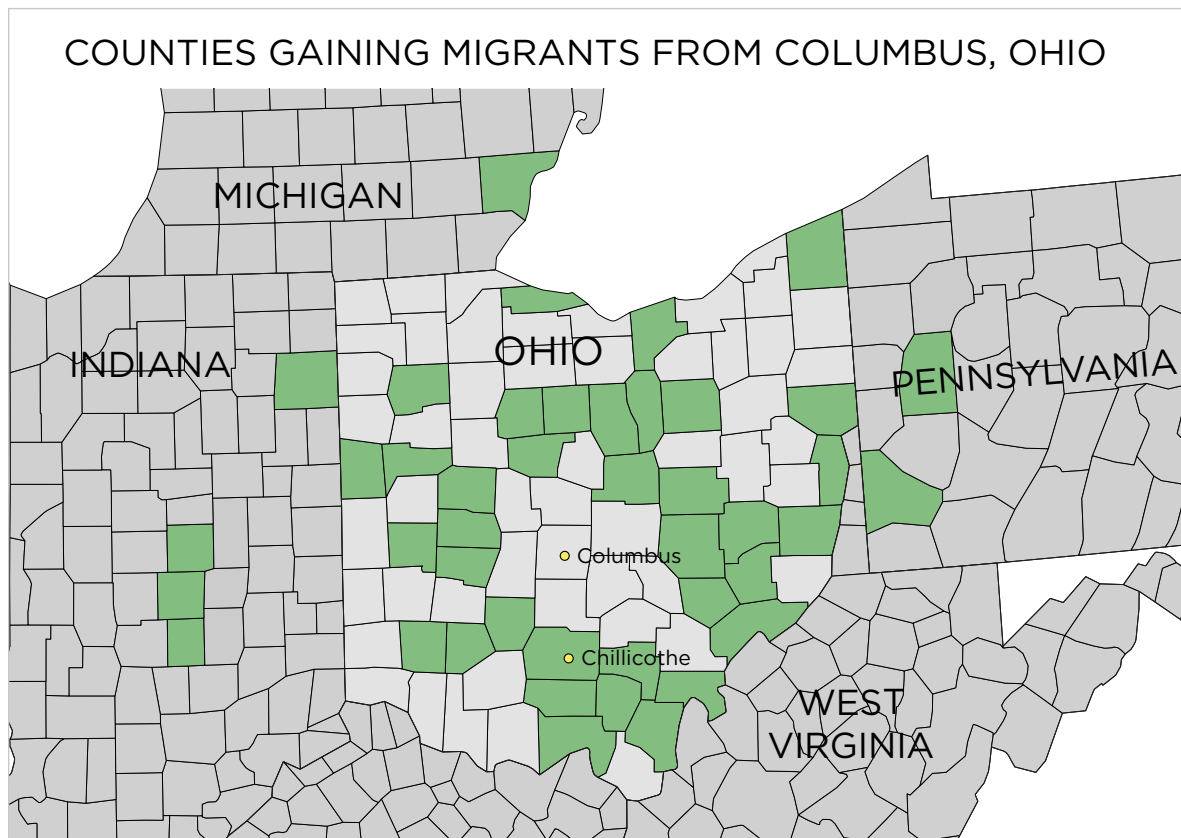
Town of Chillicothe, Ohio. Image credit: Jason Dille (Evergreen Creative)

Columbus has traditionally drawn people from the rest of Ohio, but recently that has changed. Starting during the 2019–2020 period, the Columbus metro area began losing

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population to the rest of Ohio, according to tax return data from the IRS.⁶⁷ This is the first such recorded net loss for metro Columbus since the start of the IRS data series in 1990–1991. Part of the reason is housing affordability challenges. According to the *Demographia International Housing Affordability Survey* for 2023, the price/income ratio⁶⁸ for homes in metro Columbus is now 4.1.⁶⁹ In 2013, that ratio was only 2.7.⁷⁰ Thus, housing affordability in metro Columbus deteriorated significantly over the last decade, with the price/income ratio increasing by over 50%. Pending projects such as Intel’s \$20 billion investment in a chip factory in Columbus⁷¹ suggest improvements in housing affordability are unlikely, and indeed that the situation could grow worse.

As a result, the big destinations for these new out migrants are the exurban rings around the Columbus region, including parts of Appalachian Ohio. Chillicothe has been one beneficiary. It is the county seat of Ross County. Per IRS migration data, Ross County lost population to metro Columbus from 2010 to 2015. But as of 2015, this flow reversed, and migrants began leaving the Columbus area for Ross County on net. As of 2020–2021, the most recent year’s data available, an all-time record high of 289 people moved from metro Columbus to Ross County.⁷²



Counties gaining migrants from metropolitan Columbus.

Source: Analysis of IRS county-to-county migration data, 2020–2021

Chillicothe was too far from Columbus to commute for workers who are five days a week at the employer site, but reasonable in a hybrid scenario of only two days per week on site. It has an intact, historic downtown and high-quality housing in its core area. It is possible to buy a perfectly serviceable four-bedroom house in the town center of Chillicothe for

less than \$225,000.⁷³ Bona fide historic mansions with over 5,000 square feet can be purchased for under \$600,000.⁷⁴ It has significant consumer amenities such as high-quality coffee shops, microbreweries, and restaurants.

West Virginia's eastern panhandle, which is proximate to Washington, DC is another area benefiting from this trend. Jefferson County, WV is actually part of the Washington metro area, although it is further from the District of Columbia than Chillicothe is from downtown Columbus, Ohio. Berkeley, Morgan, and Jefferson Counties, all in the same eastern panhandle region of West Virginia closest to Washington, are the three fastest growing counties in the state of West Virginia.⁷⁵ Five out of only seven counties in the entire state of West Virginia that added population in 2022 were in this region of the state within commuting distance of Washington, DC for hybrid workers. Charles Town, in Jefferson County, saw its number of building permits issued increase from 223 in 2020 to 787 in 2022.⁷⁶

The Solheim Family's Move to West Virginia's Eastern Panhandle

Nick Solheim is a twentysomething professional working for a non-profit in Washington, DC.⁷⁷ He grew up all over the world as a child of Marines who later turned missionaries. While that was a great experience, it also left him seeking rootedness for his own family as an adult. "It's important that you settle in a place and win the hearts of your children to want to settle in that place as well," he says.

While staying with his new wife in a Smoky Mountains cabin near Bryson City, NC for their honeymoon in September 2021, they had an epiphany about moving from the District of Columbia to the eastern panhandle of West Virginia. Returning afterwards to her parents' home in Cary, NC before heading home, they doubled down by floating the idea that only would they move to Appalachia themselves, but that their in-laws should follow. Solheim said of this, "I'm going to live somewhere where I don't mind dying and will be good for my kids and grandkids."

After an intense property search, the Solheims found a three-bedroom home on a three-acre property eight to ten minutes from downtown Harper's Ferry, WV that they were able to buy for only \$295,000 – half or less what it would have cost to buy across the border in Virginia. His in-laws moved nearby not long afterward. They were able to make this move because of pandemic era changes to work patterns that mean Nick only has to make the train trip into DC two to three days per week. He is able to work from home the rest of the time.

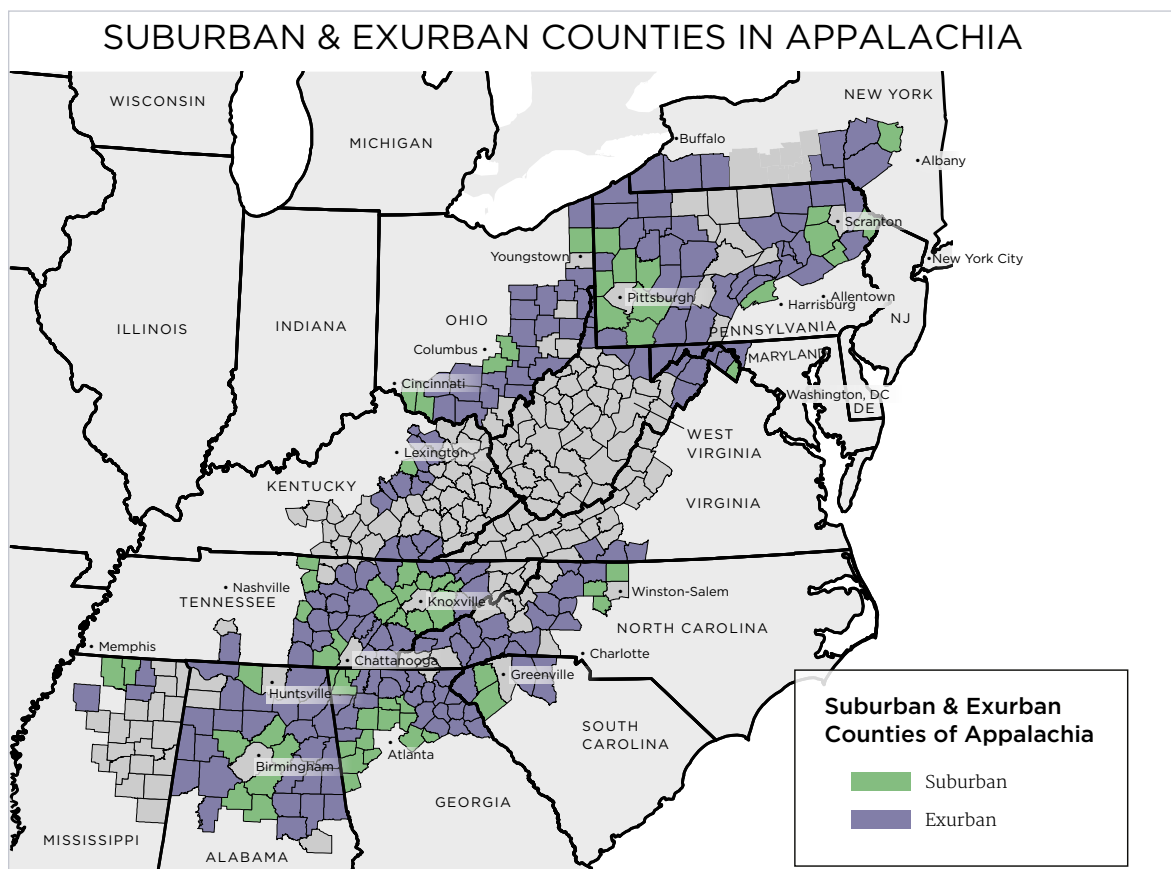
The families love their new homes and rural environment. The Solheims already had their first child, and having the grandparents close by has been both a help and a joy. It's worked out so well that Nick Solheim is already working to relocate his own grandmother to the region too.

3. Appalachian Opportunities

These examples illustrate the attributes of Appalachian communities that are likeliest to potentially benefit from people relocating to take advantage of exurban hybrid work opportunities:

- Geographically positioned to draw from a metropolitan area that is a) significant in size, b) economically thriving, and c) experiencing housing price affordability pressures.
- Located too far from that metropolitan area for daily commuting, but sufficiently close to make commuting a limited number of days per week in a hybrid work scenario plausible.
- In or near a town that has an intact historic core with commercial amenities, and high quality but reasonably priced residential properties.

The map below shows counties in Appalachia that are either suburban metro counties (shown in green) or exurban counties extending roughly two county rings beyond the metro area (shown in purple) of metropolitan areas with 500,000 or more people. This is a heuristic measure of hybrid work addressability in Appalachia. Local communities should do a more detailed analysis to determine the degree to which they could potentially draw hybrid remote workers.



This map illustrates also how some of the more distressed areas of North Appalachia in Eastern Kentucky, Virginia, and West Virginia are not approximate to major metropolitan

areas. This lack of proximity to major job markets is a general challenge for these communities.

3.2.3 Connecting Appalachian Residents to New Remote Work Positions

Remote work is often thought of in terms of how it allows communities to attract new residents. However, the existing population can also directly benefit by accessing an expanded pool of job opportunities. Rather than being limited to jobs available in the place where they live, Appalachians can now potentially obtain a remote work position from employers based elsewhere.

CentralApp⁷⁸ is an example of a company demonstrating the potential for this type of remote work in Appalachia. Its CEO Todd Cope was raised in a coal mining family in Putnam County, WV before going to college at Carnegie Mellon University and then on to a long career in Silicon Valley before moving back to Appalachia with his family. He joined CentralApp in Huntington, West Virginia as CEO five years ago. CentralApp is a broker that connects Appalachian residents to the high-tech remote work market. He thesis was, “There’s lots of talent in the country, but opportunity is not evenly distributed.”

“There’s lots of talent in the country, but opportunity is not evenly distributed.”

*CentralApp CEO,
Todd Cope*

The company identifies potential candidates and pays to train them in Salesforce technology. It then contracts with companies for Salesforce services, with its trained workers providing contract labor. These contracting agreements provide the opportunity for clients to hire these workers into full-time positions, with CentralApp receiving a placement fee. However, the majority of CentralApp’s workers are stay-at-home mothers who only want part time work.

CentralApp presently has over 100 Salesforce certified professionals working remotely for clients from Appalachia. Cope hopes to ultimately grow the company to 1000 workers. According to Cope, Appalachia represents the lowest cost domestic option for Salesforce services. At the same time, pay rates for workers are much higher than they would otherwise receive working locally for an Appalachian company. At least one CentralApp contractor in Hazard, Kentucky, whose county has a median household income of \$40,577,⁷⁹ was hired on full time at his client at a six-figure salary. This shows how remote work offers potentially life changing career opportunities to existing Appalachian residents.

Remote Work Broker Oktana in Charleston, WV

Oktana is one of the companies taking advantage of Appalachia's under-leveraged talent base. Founded in 2014 in Uruguay, Oktana was launched as a nearshore software development consultancy focused on Salesforce implementation. In 2020, Oktana opened an onshore delivery center in Charleston, West Virginia. This US center was launched by Julia Barrett, who had extensive experience in the Silicon Valley's technology industry, including having previously worked at Salesforce.

Barrett researched the entire eastern US before selecting Charleston. Her research concluded that Charleston offered the best location for employee loyalty. And she was also impressed with how hard everyone in West Virginia was working to better the state. She says, "I don't know another state where everyone is working so hard to help themselves."

Oktana recruited employees with some experience in the field. Some had college degrees, but others had only been through a coding boot camp program. However, the company also invested heavily in training its employees to provide them with up to date, market relevant skills on the Salesforce platform. Job opportunities at Oktana have been life changing for some employees. For example, one of their team members is a former coal miner who had previously experienced a stint of homelessness.

The Charleston delivery center was originally designed to serve remote clients, but with a workforce based in a physical office. The pandemic forced a pivot to a fully remote strategy. Today, Oktana maintains a hybrid strategy with a physical office, but much of the workforce is operating remotely. The company presently employs about 25 people in West Virginia, with an additional 300 resources across Latin America.

Firms like CentralApp or Oktana (see sidebar) are key players in connecting local residents to remote work opportunities. They operate as brokers that fulfill the following key functions:

- **Talent Identification** – They seek out, vet, and select the talent in Appalachia.
- **Training** – They invest in training Appalachian talent with specific, market relevant skills. They know which training to provide, and also fund its delivery.
- **Business Development** – They find clients and sell work that allows them to place Appalachian talent into real remote work roles.

These broker firms function practically as remote work "middleware." Without the key brokerage function they provide, it is highly unlikely that their workers would have been able, on their own, to obtain this type of high-quality remote employment. These case studies suggest that attracting people and creating institutions to act as brokers will be a key success factor for remote work success in Appalachia, especially for providing opportunities to existing residents.

3.2.4 Appalachian Remote Work Opportunities – And Challenges

The sections above illustrate that the opportunity for Appalachian communities to benefit from remote work and exurbanization is real. At the same time, the scale of what has

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happened with remote work in North Appalachia, from which the above examples were drawn, is limited. While a significant number of remote workers may move to South Appalachia organically in the absence of formal attraction programs, change at scale in North Appalachia will require a significant amount of time.

Also, while the rise of remote work offers opportunity for Appalachian communities, it comes with the risk of destabilizing real estate markets. Many of these communities have been demographically stagnant to declining. They have little commercial infrastructure in place for building new housing. In the absence of the infrastructural capability to grow, even a modest influx of new residents can significantly raise housing prices. This happened in Maine, for example, which saw a net arrival of newcomers for the first time in many years during the pandemic, raising housing prices by as much as 60% in some places.

In light of the risk of potential home price inflation, Ascend WV was right to be cautious in the number of remote workers relocatees that it placed in its participant communities. However, with growth in South Appalachia occurring organically, the housing price challenge in this region may become larger in the near future even in the absence of government or civic action.

Policy Implications for Remote Work

1. Continue federal and state investments to ensure universal broadband access. Broadband is a precondition of accessing remote work.
2. Leverage next generation satellite broadband (SpaceX's Starlink) to reduce broadband deployment costs in hard-to-reach areas.
3. Begin developing or expanding relocation incentive programs for remote workers, modeled on Tulsa Remote and Ascend WV, with an emphasis on targeted, philanthropically funded programs.
4. Create and deploy remote work preparedness programs to assist local communities in welcoming and integrating remote work newcomers.
5. Create co-working facilities and cultural programming to enable newly arrived remote workers and on-ramp to engage in the community.
6. Invest in historic preservation and protect residents from rising housing prices as with policy implications for traditional opportunities.
7. Work to attract additional housing developers such as RidgeRunner USA to increase housing supply in line with new demand.
8. Review housing regulations to eliminate or modify those that inappropriately limit the supply of housing, particularly those affecting naturally occurring affordable housing types like trailer parks. Example: legalize accessory dwelling units such as "granny flats" or carriage house apartments.
9. Attract and retain flights to regional Appalachian airports (e.g., Tri-Cities Airport in Tennessee) to facilitate any needed travel by remote workers.
10. Attract or create additional brokers to connect local residents to remote work opportunities.

4. CONCLUSION

The unique challenges and character of the Appalachian region have been a major theme in American discourse for over 100 years. North Appalachia, embedded in the structurally slow growth Northern United States, outside perhaps areas close to Pittsburgh or Columbus, is likely to experience continued significant challenges. South Appalachia has brighter near-term prospects, as it is starting to organically benefit from a confluence of factors including continued high rates of Sunbelt growth, rising housing prices in major metro areas, and the exurban expansion of major boomtowns like Atlanta into Appalachian territory. Significant parts of this region are starting to be lifted by market forces.

Appalachian communities can't easily create growth and prosperity through government policies. What they can do is avoid negative policies that would impede what growth they have by interfering with the market. This is especially the case with environmental legislation that threatens natural resource development, such as bans on fracking. In a country where housing affordability challenges have become pervasive, states and localities also need to pro-actively review legacy regulations that would inhibit new housing development, liberalizing those rules in advance of new demand. Given the low population levels in much of rural Appalachia, it would not take extensive incremental demand to raise prices significantly. In light of their low scores on the Tax Foundation index, these states may also want to review their tax structures to address any specific taxes that have a disproportionately negative affect on Appalachian industries.

Communities should look at how they can take advantage of new opportunities coming to the fore in terms of remote work and exurbanization. The examples of Chillicothe, Ohio, West Virginia's Ascend WV program, and brokers like CentralApp and Oktana show real potential. It will require Appalachian communities to take action to profit from them, including polishing their existing amenities such as historic downtowns, continuing to deploy broadband, investing in marketing or even incentives, and creating additional brokers that can connect existing residents to higher wage remote work opportunities. In many smaller and rural areas, even modest success in these endeavors can make a material impact.

The future, of course, is inherently speculative, but it seems likely that some parts of Appalachia might even come to be seen as highly desirable, sought after locations. Demographic and economic fortunes, as well as brand image, are not set in stone. Not long ago, North Idaho was one of the most stigmatized areas of the country, known as a home of survivalist and white supremacist compounds. Today it is one of the hottest destinations for migrants in the country, and its main city Coeur d'Alene a boomtown.

Becoming a boomtown is not necessarily desirable. And nor is it necessary for a community to grow and thrive. The Mountain West communities do show that charming town centers and attractive settings intersect powerfully with a market being shaped by remote work and economic dispersal. This is beginning to occur in Appalachia as well. Efforts to spruce up existing towns — for example Foxburg in the Allegheny Valley or the places like Gainsboro in the upper Cumberland area of Tennessee — are critical parts of an effort to enhance local assets in ways that intersect with changing market trends. Appalachia has many assets, both in its people and natural environment, that makes it an ideal locale for America's rapidly changing demographic and economic reality. Although challenges remain, the prospects for Appalachia are far brighter than widely assumed.

APPENDIX: METROPOLITAN AND MICROPOLITAN AREA PERFORMANCE INDEX

This Appendix contains a performance ranking of Appalachian metropolitan and micro-politan areas. A metro or micro area is considered Appalachian for the purposes of this ranking if 40% or more of its population is within the Appalachian region.

The list is sorted alphabetically. The “Rank in Metro/Micro” column shows each area’s rank within the group of Appalachian metropolitans and micropolitan areas respectively.

The “Rank in Category” column shows each area’s rank relative to its size category. Size categories are shown in the “Size Category” column. This divides metropolitan areas into four different size categories: over one million in population, between 500,000 and one million, between 250,000 and 500,000 and below 250,000 in population. All micropolitan areas are in a single micropolitan size category.

The “Index Ranking Score” is the overall performance index score, calculated as the average Z-score from the data elements shown in the chart. The number shown in each data column is the ranking of that region nationally among all metropolitan (out of 384 total) or micropolitan (out of 543 total) areas in the country. Details on the data sources are provided below the ranking table.

Data Sources are:

- One year job growth: 2017–2022 employment growth (Lightcast, 2022.2)
- Five-year job growth: 2021–2022 employment growth (Lightcast, 2022.2)
- Wage growth: 2012–2022 growth of wages, salaries, and proprietor earnings (Lightcast, 2022.2)
- Poverty rate: 2017–2021 American Community Survey 5-year Sample
- Median age: 2017–2021 American Community Survey 5-year Sample
- Domestic migration: Average domestic migration, 2013–2022 (U.S. Census Population Estimates Program)
- Median multiple: Ratio of median home value to median household income (2017–2021 American Community Survey 5-year Sample)

Appendix: Metropolitan and Micropolitan Area Performance Index

Rank in Metro/ Micro	Rank in Category	Region Name	Ranking Index Score	Rank 1-Year Job Growth	Rank 5-Year Job Growth	Rank Wage Growth	Rank Poverty Rate	Rank Median Age	Rank Domestic Migration	Rank Median Multiple	Size Category
18	18	Albertville, AL	0.122	263	77	190	151	343	140	199	Micropolitan
71	71	Alexander City, AL	-0.353	387	387	383	181	48	188	438	Micropolitan
35	19	Altoona, PA	-0.179	342	319	196	150	37	269	335	Under 250K
40	24	Anniston-Oxford, AL	-0.31	361	227	373	58	140	247	342	Under 250K
5	3	Asheville, NC	0.248	100	104	94	276	28	41	64	250K to 500K
60	60	Ashtabula, OH	-0.274	208	291	382	107	129	318	327	Micropolitan
39	39	Athens, OH	-0.102	121	424	456	242	523	463	114	Micropolitan
69	69	Athens, TN	-0.345	529	197	463	199	152	52	162	Micropolitan
44	28	Beckley, WV	-0.611	325	350	358	10	40	345	346	Under 250K
84	84	Big Stone Gap, VA	-0.723	369	463	529	92	180	478	441	Micropolitan
30	14	Binghamton, NY	-0.094	282	368	89	121	101	334	370	Under 250K
1	1	Birmingham-Hoover, AL	0.07	223	136	285	145	171	186	228	1 Million or more
18	2	Blacksburg-Christiansburg, VA	0.481	28	89	118	216	334	222	153	Under 250K
28	12	Bloomsburg-Berwick, PA	-0.012	288	252	125	202	64	213	221	Under 250K
82	82	Bluefield, WV-VA	-0.634	481	491	458	130	88	372	352	Micropolitan
37	37	Boone, NC	-0.076	524	239	287	400	498	38	27	Micropolitan
80	80	Bradford, PA	-0.518	332	481	527	249	105	388	538	Micropolitan
30	30	Brevard, NC	-0.005	111	76	125	345	6	27	46	Micropolitan
4	4	Calhoun, GA	0.458	127	23	39	198	336	90	135	Micropolitan
73	73	Cambridge, OH	-0.355	319	500	301	151	138	280	261	Micropolitan
19	19	Cedartown, GA	0.121	217	116	226	116	381	93	221	Micropolitan
43	27	Charleston, WV	-0.541	349	359	342	38	34	356	358	Under 250K
13	11	Chattanooga, TN-GA	0.318	144	86	135	181	107	80	187	500K to 1 Million
42	42	Chillicothe, OH	-0.12	344	117	428	199	191	211	301	Micropolitan
28	28	Clarksburg, WV	0.004	259	248	116	263	128	254	393	Micropolitan
29	13	Cleveland, TN	-0.033	321	185	332	150	105	61	179	Under 250K
67	67	Columbus, MS	-0.34	332	300	371	79	423	461	177	Micropolitan
13	13	Cookeville, TN	0.232	205	48	290	222	350	34	92	Micropolitan
49	49	Corinth, MS	-0.197	339	406	352	222	275	220	266	Micropolitan
12	12	Cornelia, GA	0.235	77	330	212	291	350	68	183	Micropolitan
36	36	Corning, NY	-0.061	366	449	70	377	123	413	513	Micropolitan
11	11	Cortland, NY	0.251	58	366	250	440	437	418	455	Micropolitan
70	70	Coshocton, OH	-0.352	262	459	454	116	217	243	385	Micropolitan

Appendix: Metropolitan and Micropolitan Area Performance Index

Rank in Metro/ Micro	Rank in Category	Region Name	Ranking Index Score	Rank 1-Year Job Growth	Rank 5-Year Job Growth	Rank Wage Growth	Rank Poverty Rate	Rank Median Age	Rank Domestic Migration	Rank Median Multiple	Size Category
23	23	Crossville, TN	0.088	47	201	315	353	5	10	113	Micropolitan
7	7	Cullman, AL	0.353	90	97	220	334	197	49	214	Micropolitan
14	14	Cullowhee, NC	0.23	118	45	89	181	291	57	55	Micropolitan
31	15	Cumberland, MD-WV	-0.119	190	341	262	163	55	270	302	Under 250K
26	10	Dalton, GA	0.042	215	200	265	100	262	256	272	Under 250K
21	21	Danville, KY	0.096	103	162	368	222	237	121	248	Micropolitan
3	3	Dayton, TN	0.508	15	39	141	142	255	72	171	Micropolitan
23	7	Decatur, AL	0.105	281	68	168	78	89	196	284	Under 250K
53	53	DuBois, PA	-0.22	393	253	275	244	60	342	482	Micropolitan
32	16	East Stroudsburg, PA	-0.15	232	289	337	196	39	203	324	Under 250K
81	81	Elkins, WV	-0.623	533	524	314	208	71	244	317	Micropolitan
38	22	Elmira, NY	-0.227	245	356	233	121	75	376	379	Under 250K
10	8	Erie, PA	-0.309	261	340	346	106	134	353	307	250K to 500K
68	68	Fairmont, WV	-0.343	305	472	520	280	248	192	404	Micropolitan
22	6	Florence-Muscle Shoals, AL	0.107	225	201	150	121	78	108	246	Under 250K
29	29	Forest City, NC	-0.004	108	114	293	167	63	98	154	Micropolitan
24	24	Fort Payne, AL	0.065	338	61	91	85	291	152	259	Micropolitan
41	25	Gadsden, AL	-0.456	357	382	324	67	67	172	268	Under 250K
45	45	Gaffney, SC	-0.162	415	113	490	151	323	125	279	Micropolitan
17	1	Gainesville, GA	0.633	51	30	34	106	234	46	141	Under 250K
43	43	Greeneville, TN	-0.142	108	337	441	233	67	61	134	Micropolitan
11	9	Greenville-Anderson, SC	0.453	54	64	225	163	171	48	202	500K to 1 Million
7	5	Hagerstown-Martinsburg, MD-WV	0.049	304	254	216	196	107	71	178	250K to 500K
6	4	Hickory-Lenoir-Morganton, NC	0.133	228	177	64	137	42	122	260	250K to 500K
40	40	Huntingdon, PA	-0.114	226	272	306	334	106	309	240	Micropolitan
9	7	Huntington-Ashland, WV-KY-OH	-0.288	263	293	323	39	67	298	326	250K to 500K
3	1	Huntsville, AL	0.507	123	23	306	247	161	38	254	250K to 500K
64	64	Indiana, PA	-0.332	489	521	418	433	269	369	353	Micropolitan
20	4	Ithaca, NY	0.13	334	349	127	354	365	287	123	Under 250K
58	58	Jackson, OH	-0.27	498	422	365	208	291	223	433	Micropolitan
48	48	Jamestown-Dunkirk-Fredonia, NY	-0.193	211	467	181	222	126	444	501	Micropolitan
50	50	Jasper, AL	-0.2	358	241	406	215	167	235	318	Micropolitan
1	1	Jefferson, GA	2.634	1	1	387	463	375	3	115	Micropolitan

Appendix: Metropolitan and Micropolitan Area Performance Index

Rank in Metro/ Micro	Rank in Category	Region Name	Ranking Index Score	Rank 1-Year Job Growth	Rank 5-Year Job Growth	Rank Wage Growth	Rank Poverty Rate	Rank Median Age	Rank Domestic Migration	Rank Median Multiple	Size Category
24	8	Johnson City, TN	0.062	204	128	194	82	49	90	168	Under 250K
42	26	Johnstown, PA	-0.485	364	379	344	188	26	342	382	Under 250K
8	6	Kingsport-Bristol, TN-VA	-0.2	156	294	327	69	25	99	213	250K to 500K
12	10	Knoxville, TN	0.416	78	65	154	176	107	53	172	500K to 1 Million
5	5	Lawrenceburg, TN	0.396	73	15	311	102	315	51	209	Micropolitan
32	32	Lewisburg, PA	-0.028	356	317	203	449	298	294	131	Micropolitan
26	26	Lewistown, PA	0.036	195	166	193	277	98	257	435	Micropolitan
61	61	Lock Haven, PA	-0.277	509	447	299	368	291	316	185	Micropolitan
77	77	London, KY	-0.401	290	169	455	23	323	202	246	Micropolitan
41	41	Marietta, OH	-0.118	236	277	147	242	77	252	220	Micropolitan
35	35	Marion, NC	-0.059	490	373	53	334	79	100	258	Micropolitan
74	74	Martinsville, VA	-0.355	356	305	354	135	51	240	348	Micropolitan
59	59	McMinnville, TN	-0.27	450	419	409	121	248	66	229	Micropolitan
52	52	Meadville, PA	-0.219	297	476	279	324	109	374	431	Micropolitan
86	86	Middlesborough, KY	-0.75	383	300	478	12	186	495	453	Micropolitan
19	3	Morgantown, WV	0.141	341	225	72	202	306	200	149	Under 250K
25	9	Morristown, TN	0.045	238	110	291	94	43	57	193	Under 250K
47	47	Mount Airy, NC	-0.184	414	391	82	208	92	170	227	Micropolitan
83	83	Mount Gay-Shamrock, WV	-0.699	113	138	531	34	88	510	342	Micropolitan
10	10	Mount Sterling, KY	0.266	17	64	417	73	248	91	391	Micropolitan
55	55	New Castle, PA	-0.252	281	357	446	345	66	306	422	Micropolitan
25	25	New Philadelphia-Dover, OH	0.052	157	308	101	284	214	300	296	Micropolitan
34	34	Newport, TN	-0.047	123	263	172	97	59	39	169	Micropolitan
79	79	North Wilkesboro, NC	-0.5	464	526	244	151	63	163	167	Micropolitan
78	78	Oil City, PA	-0.447	473	478	396	324	34	392	524	Micropolitan
66	66	Olean, NY	-0.335	429	483	332	208	142	405	529	Micropolitan
22	22	Oneonta, NY	0.091	149	465	40	368	148	174	285	Micropolitan
37	21	Parkersburg-Vienna, WV	-0.21	242	301	268	94	33	278	319	Under 250K
2	2	Pittsburgh, PA	-0.089	314	339	200	292	43	249	318	1 Million or more
76	76	Point Pleasant, WV-OH	-0.388	263	303	518	181	129	288	401	Micropolitan
57	57	Portsmouth, OH	-0.268	236	225	231	50	264	400	300	Micropolitan
17	17	Pottsville, PA	0.138	142	270	119	353	82	184	487	Micropolitan
16	16	Richmond-Berea, KY	0.21	185	181	248	167	466	55	138	Micropolitan

Appendix: Metropolitan and Micropolitan Area Performance Index

Rank in Metro/ Micro	Rank in Category	Region Name	Ranking Index Score	Rank 1-Year Job Growth	Rank 5-Year Job Growth	Rank Wage Growth	Rank Poverty Rate	Rank Median Age	Rank Domestic Migration	Rank Median Multiple	Size Category
33	17	Rome, GA	-0.157	343	304	214	22	205	139	249	Under 250K
56	56	Salem, OH	-0.263	492	411	179	305	79	338	457	Micropolitan
62	62	Sayre, PA	-0.296	248	401	370	305	88	368	172	Micropolitan
72	72	Scottsboro, AL	-0.354	377	458	330	121	112	148	263	Micropolitan
15	13	Scranton--Wilkes-Barre, PA	0.046	80	281	187	139	49	230	313	500K to 1 Million
31	31	Selinsgrove, PA	-0.01	261	495	189	491	255	200	192	Micropolitan
44	44	Seneca, SC	-0.145	231	173	462	274	44	30	109	Micropolitan
8	8	Sevierville, TN	0.32	92	38	33	263	112	71	68	Micropolitan
33	33	Shelby, NC	-0.03	304	151	119	102	173	102	149	Micropolitan
54	54	Somerset, KY	-0.231	424	146	215	43	162	78	184	Micropolitan
51	51	Somerset, PA	-0.207	361	360	355	410	51	302	452	Micropolitan
4	2	Spartanburg, SC	0.364	284	40	289	117	205	28	243	250K to 500K
63	63	St. Marys, PA	-0.31	354	518	391	510	25	361	510	Micropolitan
6	6	Starkville, MS	0.388	8	296	280	119	538	347	82	Micropolitan
21	5	State College, PA	0.117	302	375	43	376	338	282	88	Under 250K
85	85	Summerville, GA	-0.732	527	542	212	60	275	237	495	Micropolitan
38	38	Sunbury, PA	-0.088	151	398	179	334	75	311	336	Micropolitan
46	46	Talladega-Sylacauga, AL	-0.164	143	98	433	73	167	238	294	Micropolitan
9	9	Toccoa, GA	0.31	36	324	245	428	214	109	293	Micropolitan
15	15	Tulahoma-Manchester, TN	0.228	115	170	161	244	237	37	122	Micropolitan
27	27	Tupelo, MS	0.018	405	173	379	299	389	197	389	Micropolitan
27	11	Tuscaloosa, AL	0.018	196	232	331	58	313	128	182	Under 250K
75	75	Union, SC	-0.362	495	348	140	70	88	242	468	Micropolitan
65	65	Warren, PA	-0.334	438	508	275	420	39	358	503	Micropolitan
36	20	Weirton-Steubenville, WV-OH	-0.199	253	266	281	82	23	277	381	Under 250K
2	2	West Point, MS	0.617	2	6	444	42	298	436	186	Micropolitan
39	23	Wheeling, WV-OH	-0.263	350	380	130	220	30	308	357	Under 250K
34	18	Williamsport, PA	-0.176	306	351	224	231	84	301	247	Under 250K
14	12	Winston-Salem, NC	0.16	232	117	152	105	101	101	216	500K to 1 Million
16	52	Youngstown-Warren-Boardman, OH-PA	-0.344	249	360	320	56	32	286	361	500K to 1 Million
20	20	Zanesville, OH	0.099	205	158	88	167	248	195	288	Micropolitan

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Endnotes

- 1 <https://www.arc.gov/>
- 2 See David Hackett Fischer, *Albion's Seed*.
- 3 See Jim Webb, *Born Fighting*.
- 4 Clyde B. McCoy and Virginia McCoy Watson, "Stereotypes of Appalachian Migrants", in *The Invisible Minority*, editors William Philliber and Clyde McCoy, (Lexington, KY, Kentucky University Press, 1980), pp. 20-21.
- 5 See analysis in next section.
- 6 <https://carnegiemnh.org/the-story-of-oil-in-western-pennsylvania/>
- 7 <https://www.jstor.org/stable/j.ctt130jqjo>
- 8 This included anti-union violence such as the infamous Battle of Blair Mountain. See: <https://www.smithsonianmag.com/history/battle-blair-mountain-largest-labor-uprising-american-history-180978520/>
- 9 <https://aaronrenn.substack.com/p/chuck-schumer-yenta-of-the-senate>
- 10 <https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/decline-of-us-coal-pressures-banks-at-the-core-of-community-economies-68282541>
- 11 <https://stateimpact.npr.org/pennsylvania/2022/11/15/shells-ethane-cracker-a-mammoth-plastics-plant-near-pittsburgh-begins-operations/>
- 12 Elk was recently re-introduced to Kentucky, and a limited number of elk tags are now available each year. See: <https://fw.ky.gov/Hunt/Pages/ElkInKentucky.aspx>
- 13 <https://www.kentuckytourism.com/music/country-music-highway>
- 14 Parts of the subsequent description of Appalachia as idea are summarized from a lecture by Dr. Richard Straw of Radford University at the American Enterprise Institute on March 24, 2023. Used with permission of Dr. Straw.
- 15 <https://www.proquest.com/openview/011350f1c7d7e0a4a708a3f04b83ff26/1?pq-origsite=gscholar&cbl=18750&diss=y> and https://mds.marshall.edu/asa_conference/2018/accepted_proposals/231/
- 16 <https://public.wsu.edu/~campbelld/amlit/lcolor.html>
- 17 Erica Abrams Locklear, *Appalachia on the Table*.
- 18 <https://www.arc.gov/the-chartbook/>
- 19 <https://www.arc.gov/map/subregions-in-appalachia/>
- 20 Cities in the state of Virginia are independent cities, technically not part of a county. Appalachian Virginia also includes eight of these cities. This report combines data for those cities with that of the county which surrounds them and does not report them separately.

- 21 William Philliber, “Introduction”, *The Invisible Minority*, editors William Philliber and Clyde McCoy, (Lexington, KY, Kentucky University Press, 1980), pp.1–2.
- 22 Data in this paragraph based on analysis of Census 2020 and Census Population Estimates Program Data, Vintage 2022.
- 23 Data in this paragraph based on analysis of Census 2020 and Census Population Estimates Program Data, Vintage 2022.
- 24 <https://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2022/12/the-long-term-decline-in-fertility-and-what-it-means-for-state-budgets>
- 25 Analysis of Census Bureau Population Estimates Program, Vintage 2022, county components of population change.
- 26 <https://www.arc.gov/wp-content/uploads/2005/04/EmergingPatternsPopulationRedistributionandMigrationinAppalachia1.pdf>
- 27 Analysis of Census Bureau Population Estimates Program, Vintage 2022, county components of population change.
- 28 <https://www.census.gov/library/stories/2023/03/domestic-migration-trends-shifted.html>
- 29 Foreign born population from the 2016–2020 American Community Survey.
- 30 Analysis of the 2016–2020 American Community Survey
- 31 Analysis of the 2016–2020 American Community Survey
- 32 See ARC Chartbook, page 29. https://www.arc.gov/wp-content/uploads/2023/05/PRB_ARC_Chartbook_ACS_2017–2021_FINAL_2023–06.pdf
- 33 ARC Chartbook, page 23. https://www.arc.gov/wp-content/uploads/2023/05/PRB_ARC_Chartbook_ACS_2017–2021_FINAL_2023–06.pdf
- 34 All job data in this section from Lightcast™ Analyst 2022.
- 35 Analysis of data from 2016–2020 American Community Survey.
- 36 Analysis of poverty data from 2016–2020 American Community Survey.
- 37 Analysis of data from National Center for Health Statistics, Drug Overdose Mortality 2020.
- 38 <https://americanaffairsjournal.org/2021/11/indiana-under-republican-rule-pro-business-policy-disappoints-outside-the-sunbelt/>
- 39 As of 2022 Census estimates, there are only two metropolitan areas exceeding one million residents that are primarily within Appalachia: Pittsburgh and Birmingham.
- 40 <https://technical.ly/startups/why-big-tech-companies-come-to-pittsburgh-foundation-laid-over-decades-zoom-mindera-carnegie-mellon-university-google/>
- 41 <https://apnews.com/article/north-america-ap-top-news-mars-huntsville-moons-d4c8b31ad3d245d8b5a71b2b4eaa9a21>

- 42 <https://www.toyota.com/usa/operations/map/tmmal>
- 43 <https://www.zdnet.com/home-and-office/networking/chattanooga-the-first-10-gigabit-internet-city/>
- 44 <https://www.globest.com/2023/01/19/land-in-a-low-population-density-region-suddenly-becomes-hot/>
- 45 <https://www.nrdc.org/bio/marisa-guerrero/new-york-state-codifies-fracking-ban-budget>
- 46 <https://monocle.com/content/the-monocle-weekender-asheville-edition/>
- 47 https://www.washingtonpost.com/lifestyle/travel/escapes-its-population-may-be-tiny-but-thomas-wva-is-popping/2013/03/21/a078d098-8ce4-11e2-b63f-f53fb9f2fcb4_story.html
- 48 <https://bartertheatre.com/>
- 49 https://www.woodcraft.com/blog_entries/21st-century-printing-with-age-old-art-forms
- 50 <https://spokenaac.com/>
- 51 <https://www.mariettamainstreet.org/bike-marietta>
- 52 <https://medium.com/migration-issues/appalachia-is-dying-pikeville-is-not-fa583dac67de>
- 53 https://www.news-expressky.com/news/the-university-of-pikeville-experiences-record-growth-in-new-students/article_3116d716-301f-11ed-abcb-bbbb63358969.html
- 54 <https://taxfoundation.org/2023-state-business-tax-climate-index/>
- 55 Matthew Kahn, *Going Remote: How the Flexible Work Economy Can Improve Our Lives and Our Cities*
- 56 3.3% of employees worked from home in 2000, growing to 4.3% in 2010 and 5.7% by 2019. Author analysis of Census 2000 SF3 Table P90 and American Community Survey 1yr 2010 and 2019, Table B08301.
- 57 <https://www.inc.com/bill-murphy-jr/new-data-on-2000-remote-workers-in-tulsa-shows-what-happens-when-people-move-to-a-low-cost-city.html>
- 58 Information about Ascend WV is from interviews with program leaders.
- 59 <https://cardinalnews.org/2023/01/25/west-virginia-lures-remote-workers-with-fresh-air-lower-costs-and-an-incentive-program-could-this-be-a-model-for-rural-virginia/>
- 60 Information on Eastern Kentucky remote work efforts is from interviews with leaders at SOAR. SOAR stands for Shaping Our Appalachian Region. See: <https://soar-ky.org/>
- 61 <https://ekyremote.com/>
- 62 Information on Ridgerunner USA is from an interview with founder Mark Abbotoy. See: <https://ridgerunnerusa.com/>
- 63 <https://www.nber.org/papers/w28876>
- 64 Chillicothe is a micropolitan areas that is part of the Columbus Combined Statistical Area.

- 65 Two largely rural counties in the Columbus metro area are part of Appalachia.
- 66 Author analysis of Census 2010 and 2020.
- 67 Author analysis of IRS county to county migration data. See: <https://www.irs.gov/statistics/soi-tax-stats-migration-data>
- 68 The price/income ratio in this survey is defined as the median home price divided by the median household income.
- 69 <http://www.demographia.com/dhi.pdf>
- 70 <http://www.demographia.com/dhi2013.pdf>
- 71 <https://www.intel.com/content/www/us/en/newsroom/news/intel-announces-next-us-site-landmark-investment-ohio.html>
- 72 Note, people in this case refers to the total number of exemptions claimed on federal tax returns.
- 73 See, for example, https://www.zillow.com/homedetails/152-W-5th-St-Chillicothe-OH-45601/78998557_zpid/
- 74 See, for example, https://www.zillow.com/homedetails/47-E-5th-St-Chillicothe-OH-45601/78999083_zpid/
- 75 Author analysis of Census Bureau population estimates, vintage 2020, 2021-22 percentage change.
- 76 Information on the Solheim family move is from an interview with Nick Solheim
- 77 <https://ggwash.org/view/88769/is-west-virginia-ready-for-silver-line-growth>
- 78 Information on Central App is from an interview with founder Todd Cope.
See: <https://www.centralapp.us/>
- 79 <https://www.census.gov/quickfacts/perrycountykentucky>



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