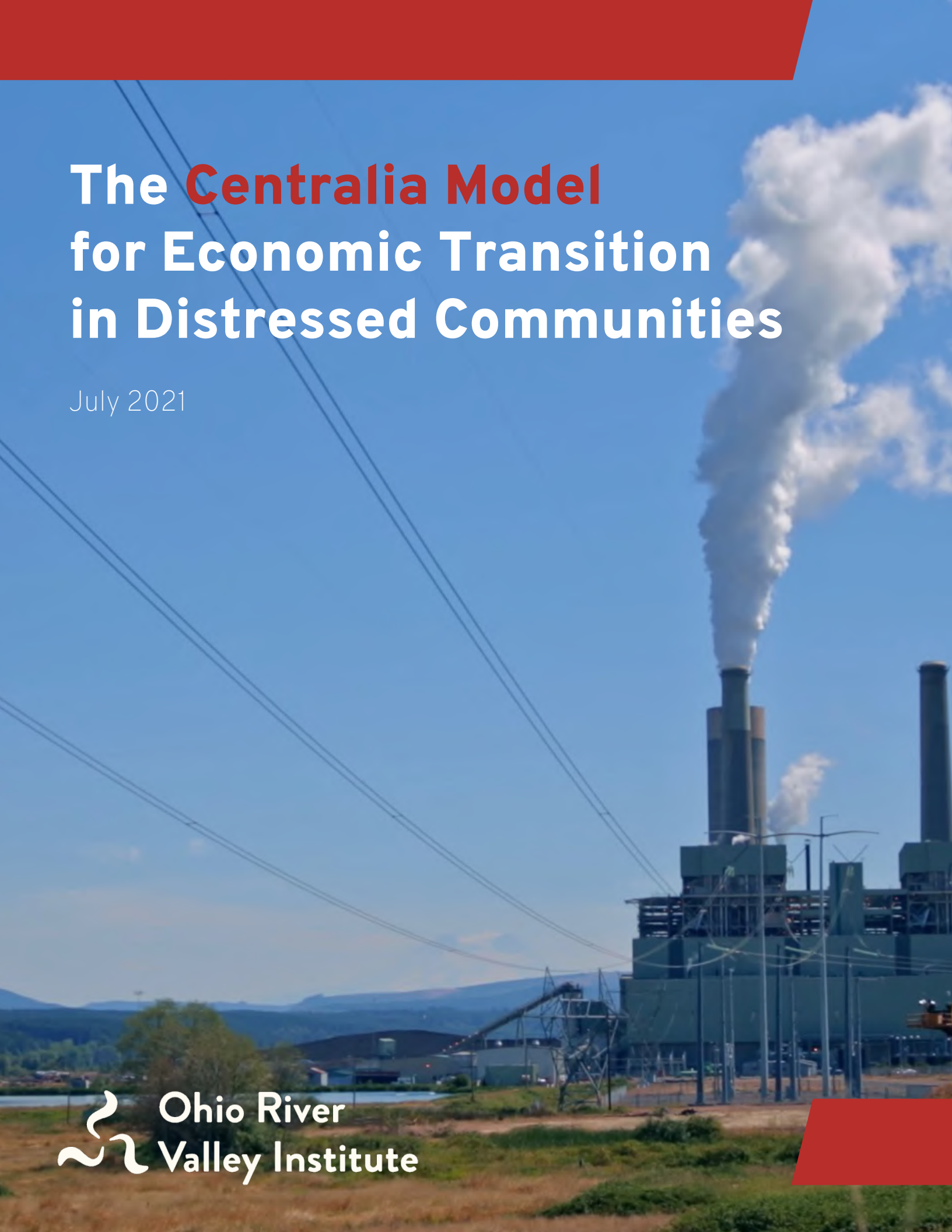
The Centralia Model for Economic Transition in Distressed Communities

July 2021



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Cover photo: Bloomberg Philanthropies/Powering Past Coal Alliance[1]

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The Ohio River Valley Institute is an independent, nonprofit research and communications founded in 2020. We equip the region's residents and decision-makers with the policy research and practical tools they need to advance long-term solutions to some of Appalachia's most significant challenges. Our work includes in-depth research, commentary, and analysis, delivered online, by email, and in-person to policy champions, emerging leaders, and a range of community partners.

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Introduction and Executive Summary

Until the Ohio River Valley Institute published a companion report to this one titled "Destined to Fail,"[2] the greatest mystery surrounding the Appalachian natural gas boom was how hundreds of billions of dollars could have been invested in the region to produce, process, and sell natural gas[3] while failing almost entirely to deliver significant growth in jobs, income, and other measures of economic prosperity.[4]

The companion report describes how the bulk of the money invested and earned from the sale of Appalachian natural gas and its byproducts was diverted from local economies and therefore failed to trigger the economic multiplier effects that industry-sponsored economic impact studies of a decade ago suggested would bring hundreds of thousands of jobs to the region.

That realization caused us to ask the question, if there are some industries in which immense amounts of investment and economic growth can fail to produce significant increases in jobs and prosperity, might there be other kinds of industries and activities in which much comparatively small investments can deliver disproportionately large gains in jobs and incomes as well as in other measures of prosperity, including quality of life? If the experience of the town of Centralia, Washington and surrounding Lewis County is an indication, the answer may be yes. And that experience may be instructive for local and state policymakers in Appalachia, where certain communities have been economically distressed for decades and now face added challenges as the world and the nation transition away from fossil fuels.

Despite being located in the Pacific Northwest, Centralia has historically struggled economically. For decades the town's largest employer was a strip mine, which employed 600 workers, and its other major private employer was a coal-fired power plant, which employed another 300. Now the mine is gone and operations at the power plant have been reduced by half as the plant works toward a planned retirement in 2025.

That scenario seemed to Centralia and Lewis County residents like a possible death sentence when it was first contemplated fifteen years ago. But, after the coal mine closed in 2006 and it was announced that the power plant would retire in 2025, the mine's and power plant's owner, TransAlta Corporation, struck a deal with the state of Washington and environmental groups to fund an economic transition plan to help Centralia and other areas of the state adapt to the emerging clean energy economy.

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The company agreed to provide $55 million in funding over ten years, with the money going toward a Weatherization Fund, an Economic and Community Development Fund, and an Energy Technology Fund. Grants from those funds started being disbursed in 2016, and between 2016 and 2019, the following took place in the Centralia MSA:

- GDP grew at twice the rate of the nation's.
- Jobs also grew at nearly twice the national rate.
- Wage growth exceeded the national average.
- Centralia's and Lewis County's populations grew faster than the national average as well.

In total during that period, Centralia added 2,800 jobs to an economy that had only 24,000 to begin with. Not bad for a place whose unemployment rate, prior to the implementation of the grants, hovered at about two-and-a-half percentage points higher than the national average for more than 25 years.

The scale of the economic turnaround in Centralia is probably too great to be solely attributable to the grant program. However, the pattern of Centralia's economic boom strongly suggests that the grants played a significant role. As does the fact that the growth was largely organic, or "bottom up," meaning that it's not attributable to the arrival of one or two major new employers, because there were none.

An examination of the pattern of growth indicates the following dynamics may have enabled the Centralia Coal Transition Grants program to be unusually effective:

- The energy, energy efficiency, and education sectors in which much of the grant funding is concentrated are highly labor-intensive, creating 2-3 times as many jobs per dollar invested as the mining and utility sectors.

- Work in these highly labor-intensive sectors tends to be performed by local suppliers and contractors—HVAC, door and window, lighting, and insulating, among others—so most of the subsequent activity occurs within the local economy.

- The grants program is highly efficient because it leverages existing businesses and programs such as the Lewis County Public Utilities District's energy efficiency program.

- The grants stimulate additional private investment, which compounds their impact. Many of the Centralia Coal Transition Fund's energy efficiency and clean energy grants either trigger or require co-funding by recipients.

- The grants are annuity-producing because they lower monthly utility bills, which becomes added disposable income for residents and a source of additional spending within the local economy. They also reduce the need for investment in expensive new power plants, which saves ratepayers even more money.

- The impacts are immediate. In contrast to most economic development strategies, which depend on the dice coming up right sometime in the future, investments like those made in Centralia begin generating jobs and start yielding other economic benefits more or less immediately. As a staffer at the NW Energy Coalition, one of the parties to the Centralia agreement put it, energy efficiency is always "shovel-ready."

- Finally, the energy efficiency upgrades being made in Centralia result in safer, more comfortable living and workspaces that reduce absenteeism and healthcare costs and enhance residents' quality of life—results that are attractive both to prospective residents and employers.

These characteristics—high jobs-intensity, engagement of local businesses and resources, the leveraging of existing programs and institutions, the production of annuity benefits and increased disposable income, and the enhancement of quality of life—are ones that should be replicable in other small and rural communities whose economies are anemic and are in need of economic development strategies that are affordable, sustainable, and effective.

Centralia's plight of a decade ago as it faced the loss of its economic anchors was quite similar to the situation currently facing communities throughout Appalachia—those with and also without coal mines and power plants—which suffer from job loss and population loss. In what might be a case of providential good fortune, the recovery in Centralia has come to light at a time when resources to fund Centralia-like transition strategies appear to be on the horizon.

At the federal level, the Biden administration is proposing major funding for energy efficiency and clean energy transition efforts of the type funded by the Centralia grants. It has prioritized a number of Appalachian and greater Ohio Valley communities. Meanwhile, states—including Virginia and Pennsylvania, both of which contain Appalachian counties—have joined (Virginia) or are considering joining (Pennsylvania) the Regional Greenhouse Gas Initiative (RGGI), which generates funds that can be applied to energy efficiency and clean energy transition as well as other priorities.

Whether or not those resources become available, Appalachian communities still must grapple with the question of, "What's the alternative to reliance on fossil fuel extraction and related industries that are either dying, destructive of the environment and quality of life, and ineffectual at generating prosperity?" Centralia may serve as a model to help answer that question.

Centralia: A Model for Economic and Energy Transition

In 2005, the U.S. economy was humming along with an unemployment rate of 5.1% and dropping. But not in Centralia, Washington.

Centralia, a town of 18,000, and Lewis County, Washington make up a micropolitan statistical area (MSA) that is located about 90 miles from both Seattle and Portland and which stretches 115 miles from Interstate 5 in the west to the eastern base of the Cascade Mountains. In all, the Centralia MSA is 20% larger in square miles than the state of Delaware, but its population of 80,000 is only one-twelfth as great.

In 2005, the national unemployment rate was only 5.1%, but in Centralia, it was over 8%. And that was actually pretty good compared to previous years. Since 1994, Centralia's unemployment rate was even higher than in many parts of Appalachia and the Ohio River Valley, whose economies were devastated by the collapse of the steel industry and declining employment in coal.[5]

But, for Centralia, the worst was still to come. In 2006, a coal mine, the town's largest private employer, closed, laying off 600 workers and causing the unemployment rate to rise at a time when it was declining in the rest of the country. Then, in 2009 the Great Recession set in, sending the unemployment rate to over 12%, more than 2 points worse than the nation's unemployment rate ever got during the Great Recession. And still the gods weren't done with Centralia.

In 2011, the town learned that its other major private employer, the TransAlta coal-fired power plant, would be retired and take with it another 300 jobs.[6]

The Seattle Times

Local News

State's last coal mine shuts; Centralia hit hard

Originally published December 1, 2006 at 12:00 am

Workers found out Monday that they were losing their jobs — some of the best-paying ones around. Also left reeling is the city, just coming out of a slump.

By Hal Bernton
Seattle Times staff reporter

CENTRALIA — Ted Pilz lost his job as a mechanic this week when Washington's only coal mine shut down. So on Wednesday he headed there for one last task. He had to pick up his tools.

During his 11 years on the job, Pilz had simply flashed his identification and cruised through the main gate on the way to the mine. This time, he had security escorts who trailed his every move.

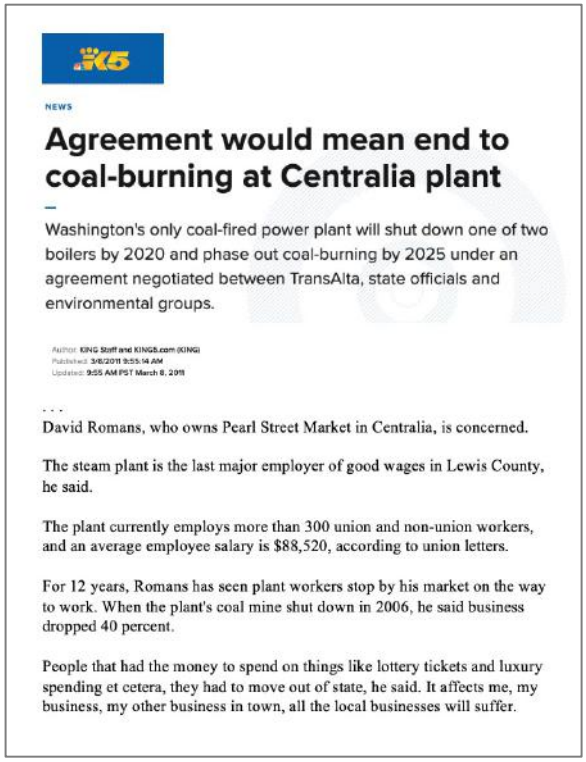
"They used to trust me enough to work on a $1 million piece of equipment," Pilz said. "I felt like I was a criminal."

It was the uneasy end of an era here in the state's coal country since the Canadian owner, TransAlta, gave up on its troubled strip mine. The announcement meant the abrupt end of more than 550 union jobs, paying an average of more than $55,000 a year. They were some of the best blue-collar jobs in Southwest Washington, a bright spot in a lackluster Lewis County economy.

This litany of bad news could easily be imagined taking place in Pennsylvania's Mon Valley or the Ohio River Valley, except for one thing…Centralia, unlike most similarly challenged communities in Appalachia, is experiencing an economic boom. Not the kind that happened with the natural gas boom in Frackalachia, which experienced skyrocketing GDP but stagnant job and income growth. Centralia experienced real economic prosperity in which GDP growth was accompanied by corresponding growth in jobs and wages.

Even with Centralia's coal-fired power plant continuing its shutdown, which will be complete in 2025, between 2015 and 2019 the Centralia MSA's GDP grew at twice the rate of the nation's (Fig. 1), and jobs and wages grew faster as well (Fig. 2). In all, more than 2,800 new jobs were added during that period in a community that only had only 24,000 jobs[7] to begin with.

The reasons for Centralia's rebirth aren't altogether clear, but two things are known. First, the job growth was not the product of a major new employer popping up, because there were none. Although the town of Centralia and Lewis County tried assiduously to recruit large-scale manufacturing businesses that would employ hundreds of workers, none actually located in Centralia. The growth is almost entirely organic—rising up from within the existing ecosystem of businesses and institutions.



KING5

NEWS

Agreement would mean end to coal-burning at Centralia plant

Washington's only coal-fired power plant will shut down one of two boilers by 2020 and phase out coal-burning by 2025 under an agreement negotiated between TransAlta, state officials and environmental groups.

Author: KING Staff and KING5.com (KING)
Published: 3/8/2011 9:55:14 AM
Updated: 9:55 AM PST March 8, 2011

. . .

David Romans, who owns Pearl Street Market in Centralia, is concerned.

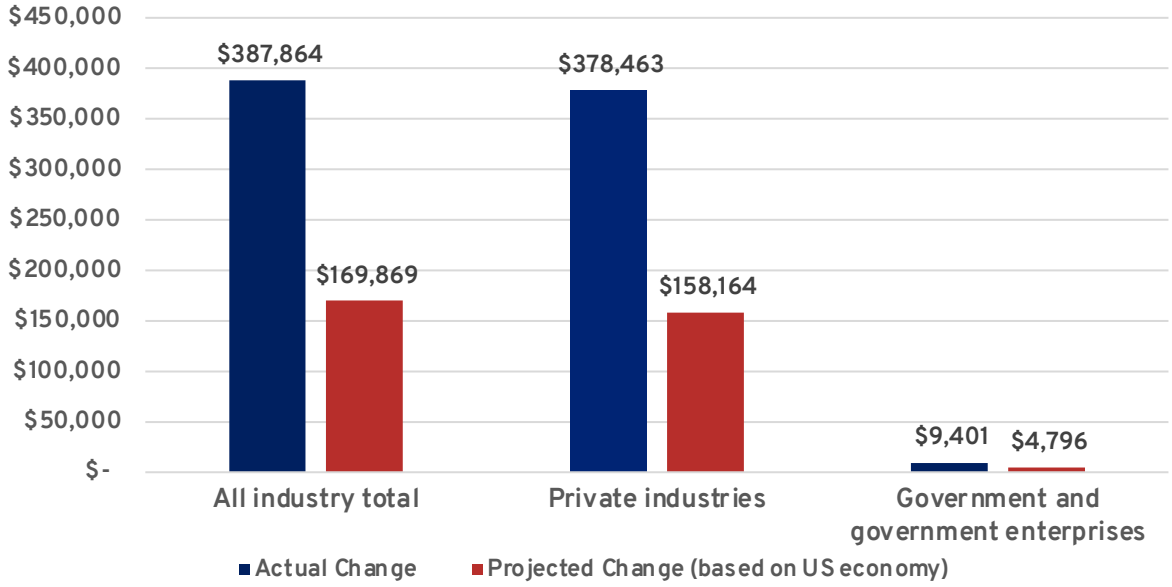
The steam plant is the last major employer of good wages in Lewis County, he said.

The plant currently employs more than 300 union and non-union workers, and an average employee salary is $88,520, according to union letters.

For 12 years, Romans has seen plant workers stop by his market on the way to work. When the plant's coal mine shut down in 2006, he said business dropped 40 percent.

People that had the money to spend on things like lottery tickets and luxury spending et cetera, they had to move out of state, he said. It affects me, my business, my other business in town, all the local businesses will suffer.

Fig. 1: Centralia GDP Change vs. Projected Change Based on U.S. Economy, 2019 vs. 2015 (In thousands of 2019 dollars)



Source: Author's calculation using Bureau of Economic Analysis data.
Table CAGDP—GDP in current dollars adjusted for inflation.

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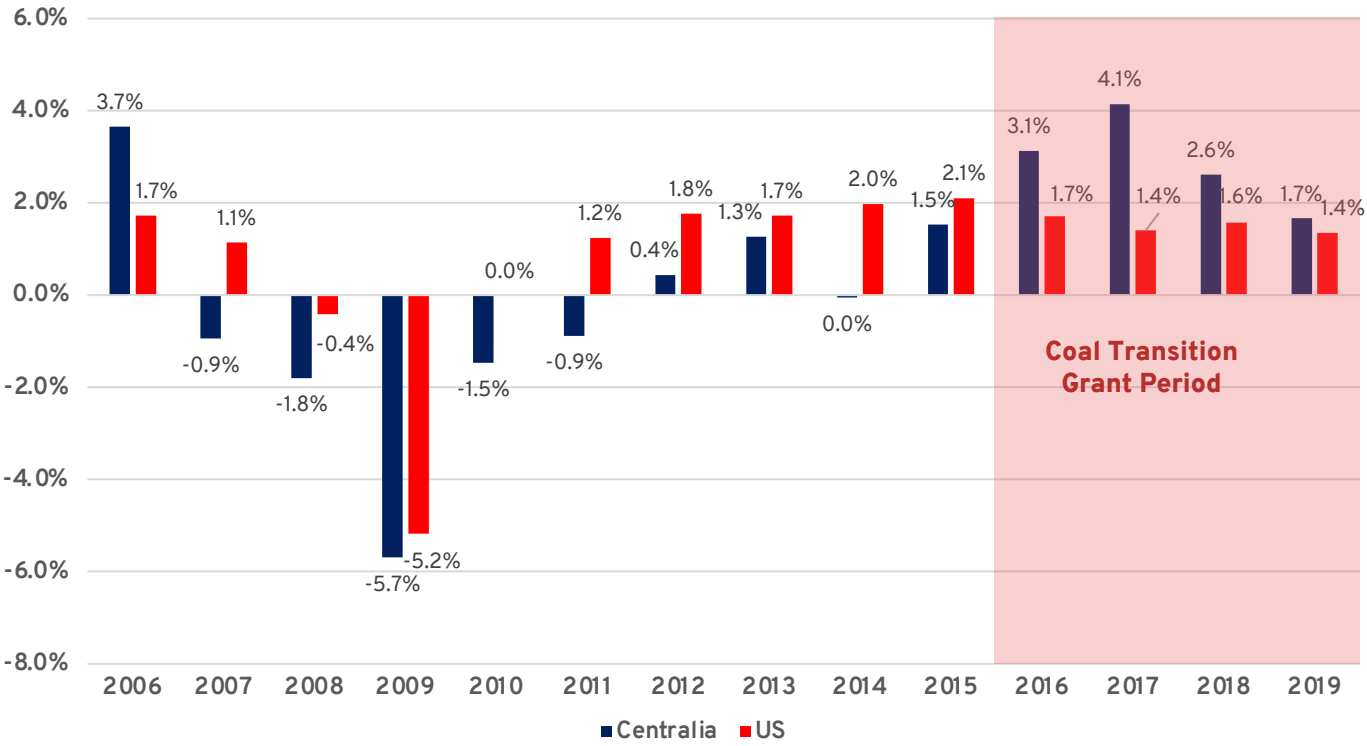
Fig. 2: Percent Change in Employment (YOY 2006—2019)



Source: Author's calculation using Quarterly Census of Employment and Wages employment data and Bureau of Labor Statistics data.[8]

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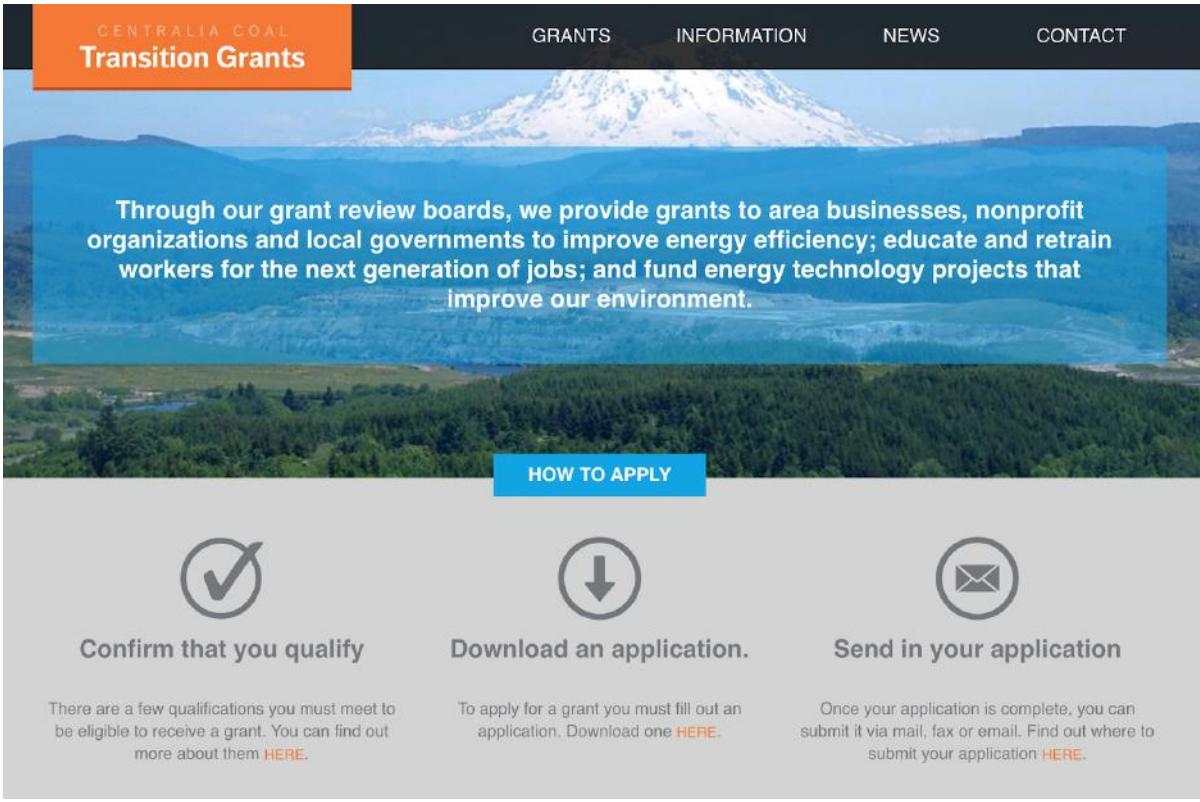
The second thing we know about Centralia is that, at the same time the power plant's 2025 retirement date was announced, the plant's owner, TransAlta Corporation, announced that it would fund an economic transition plan for the town of Centralia and the surrounding region, with some of the funds going to other communities in the state of Washington.

The Centralia Coal Transition Fund was born. The fund is overseen by an appointed board composed of TransAlta employees and representatives from local government, economic development groups, and community and environmental groups. By the time its work is complete, the coal transition fund board will have distributed $55 million in grants to promote economic development and fund weatherization and clean energy technologies for residents, employees, businesses, non-profit organizations and local governments.



Centralia Coal Transition Grants

The grants are being made from three funds:

- **The Weatherization Fund** is receiving contributions of $833,000 annually and an aggregate amount of $10 million over its life, to support residential energy efficiency and weatherization measures for low-income and moderate-income residents. At least $1 million of the $10 million that would eventually be deposited in this fund would be dedicated to weatherization measures for low-income residents in two surrounding

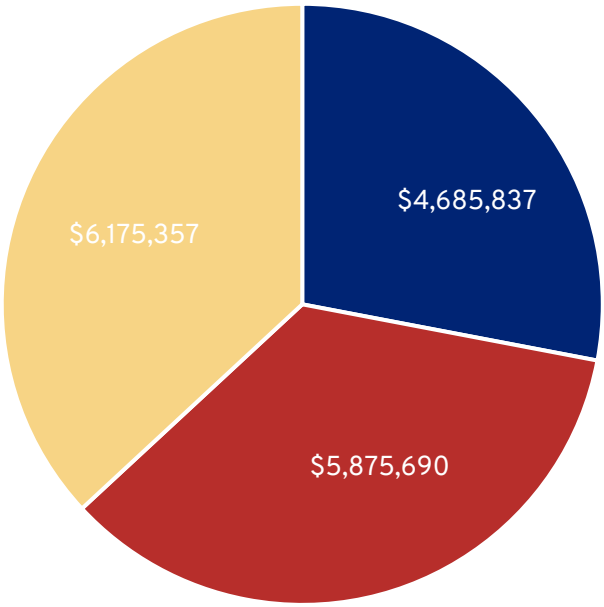
counties.

- **The Economic and Community Development Fund** is receiving $1,666,667 annually and an aggregate amount of $20 million over its life and would allocate funds to "education, retraining and economic development specifically targeting the needs of workers displaced from the Facility." This fund also makes investments to enhance economic opportunities and community partnerships within the two surrounding counties.

- **The Energy Technology Fund** is receiving at least $2,083,000 annually and an aggregate amount of $25 million over its life in annual contributions and would fund "energy technologies with the potential to create considerable energy, air quality, haze or other environmental benefits located in or otherwise to the benefit of the State of Washington."

Since grant activity started in March of 2016 and, as of April 2021, forty-two grants totaling $17,492,102 had been issued (Fig. 3). An additional $8 million had been set aside to compensate workers who would be laid off from the Centralia plant, and another $1 million has been set aside to fund training and education for workers and their families.

Fig. 3: Centralia Coal Transition Board Paid Grants as of April 2021



Source: Centralia Coal Transition Fund, Account Balances Tracking Sheet

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The Weatherization Fund has disbursed $6,175,357. The largest recipients have been the Lewis County Public Utility District's energy efficiency program, which has received three grants totaling $3,122,250 and the Community Action Council of Lewis, Mason, and Thurston Counties, which has received two grants totaling $1,427,433.

The Economic and Community Development Fund has disbursed $4,685,837. The major recipients have been the Centralia Community Foundation, which received a grant of $2 million, and the Centralia College Foundation, which received two grants totaling $2.5 million. The first grant of $1.3 million was for the construction of a building to house worker and employer training programs. The second grant of $1.2 million is being used to prepare high school students for post-secondary college and vocational education.

The Energy Technology Fund has disbursed $5,875,690. Ten local governments and school districts have received grants from the Energy Technology Fund totaling $2.1 million for the construction of solar arrays on schools and public buildings. A Renewable Hydrogen Pilot Project managed by the Bonneville Environmental Foundation received a $1.9 million grant. And the NW Seaport Alliance, the port development authority for the ports of Seattle and Tacoma, received a $1 million grant to electrify the freight terminal so that container ships will not have to burn diesel fuel while in port. The remaining Energy Technology Fund grants have gone to support public transportation electrification and a feasibility study for the development of a long-duration battery storage facility in Lewis County.

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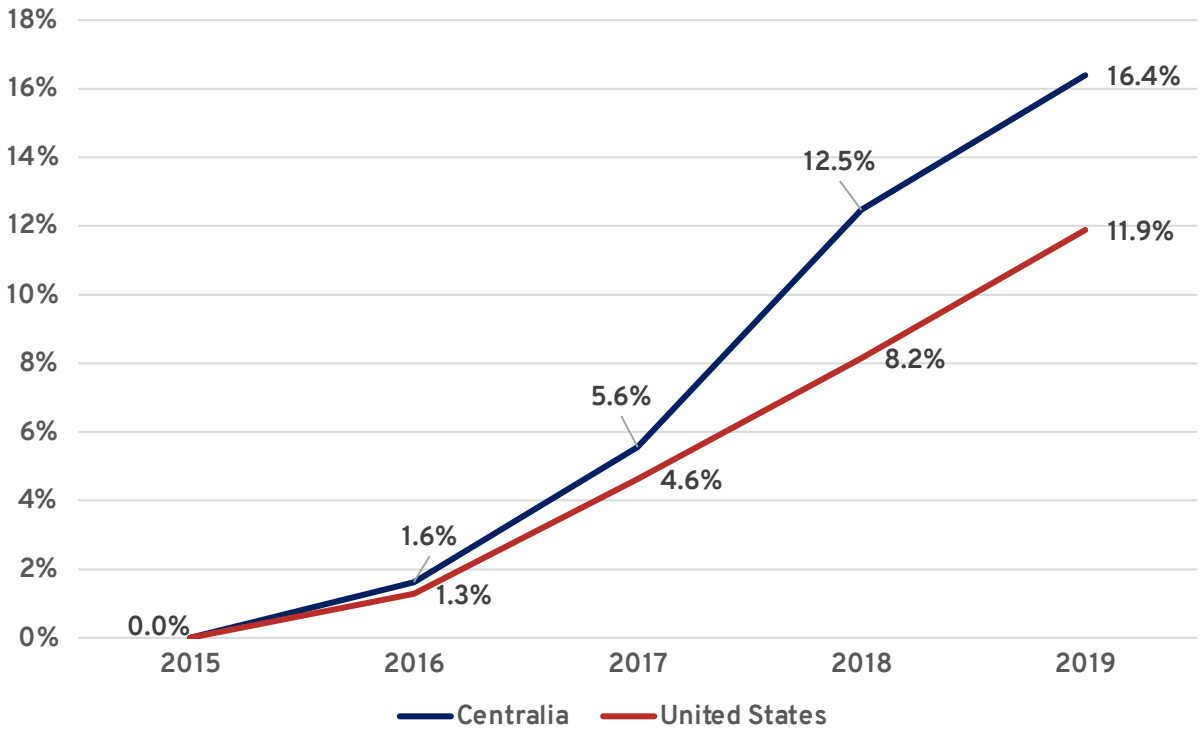
It should also be noted that, over and above the Centralia Coal Transition Grants Program, TransAlta is proposing a 180 MW utility-scale solar array near Centralia on the site of the closed coal mine. And the company has become a minority owner of a 136 MW wind farm in the county.

The Economic Impacts Associated with the Centralia Transition Program

One concern frequently expressed about transitioning from a fossil fuel to a clean energy economy is that wages will go down as the best-paying jobs in the economy are lost.

While it is undoubtedly the case in Centralia that some former coal mine and power plant workers have suffered wage and income losses, overall, during the period of the grant program Centralia's wage growth exceeded that of the nation (Fig. 4).

Fig. 4: Change in Average Weekly Wage
Centralia & U.S. 2015–2019 (in current dollars)



Source: Author's calculation using Quarterly Census of Employment and Wages data.

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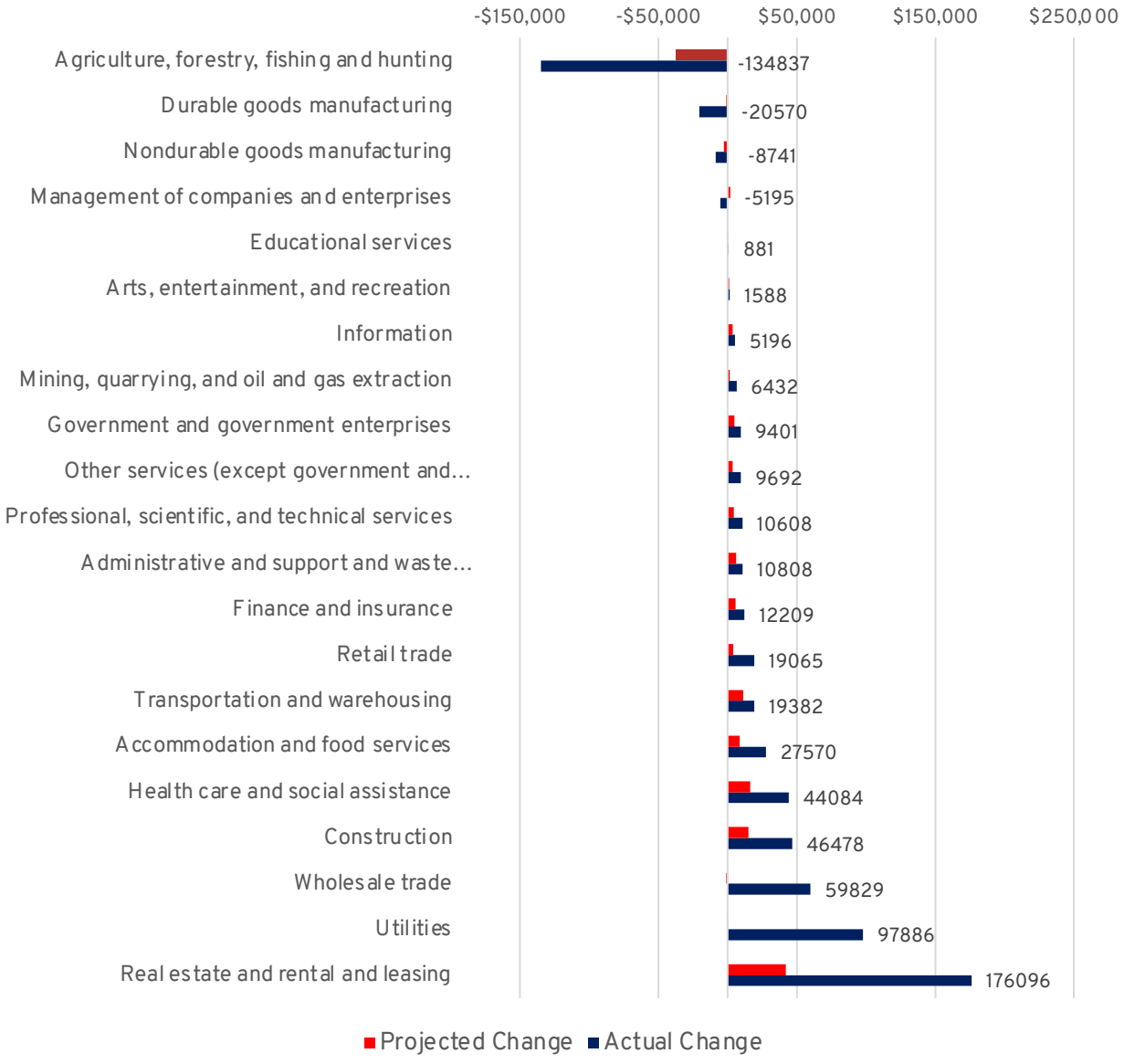
The rise in wages is driven in part by the sectors of Centralia's economy that have seen the greatest growth. Low-paying sectors such as Accommodation and Retail grew, but they were strongly outpaced by higher-paying sectors such as Real Estate, Utilities, Construction, and Wholesale Trade (Fig. 5).

Fig. 5: Change in GDP by Economic Sector in Centralia, 2015–2019
(in thousands of 2019 dollars)



Source: Author's calculation using Bureau of Economic Analysis, Regional Data, CAGDP2, Gross Domestic Product by County or Metropolitan Area

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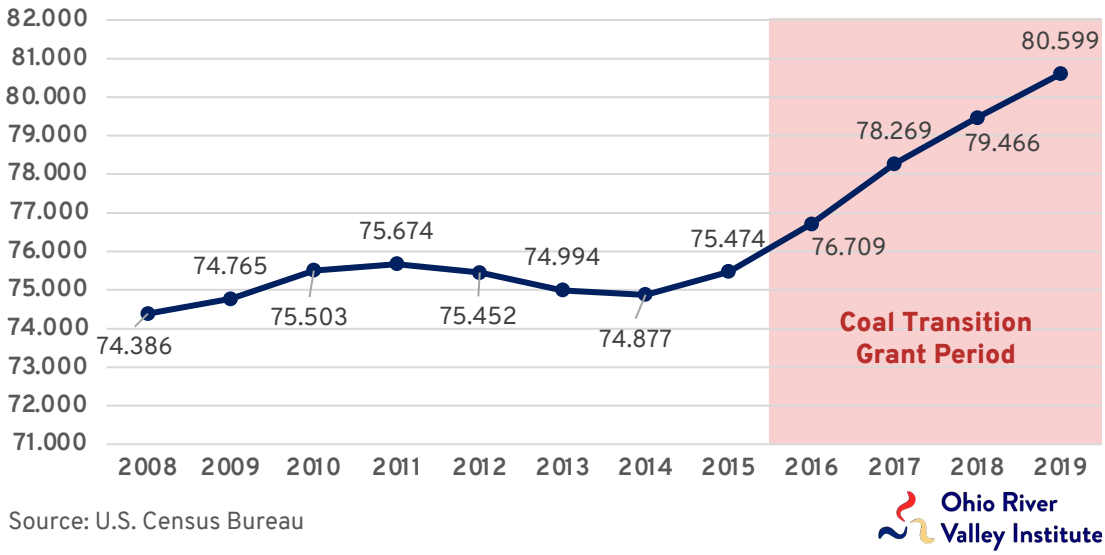
Unlike the Frackalachian counties, the growth in GDP has produced an accompanying increase in population (Fig. 6).

Fig. 6: Resident Population, Lewis County, WA, 2008–2019
(Centralia, WA Micropolitan Statistical Area)



Source: U.S. Census Bureau

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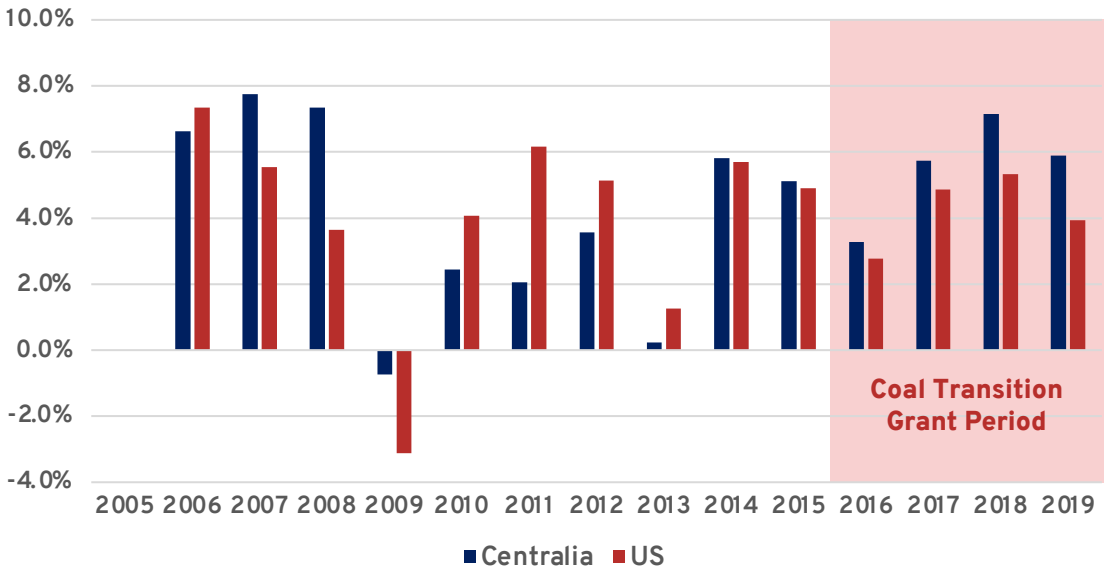
Personal income also grew strongly in Centralia between 2016 and 2019 during the Coal Transition Grant period (Fig. 7).

Fig. 7: Change in Nominal Personal Income, Centralia & U.S. 2015–2019



Source: Author's calculation using Bureau of Economic Analysis CAINC4 Personal Income and Employment by Major Component data

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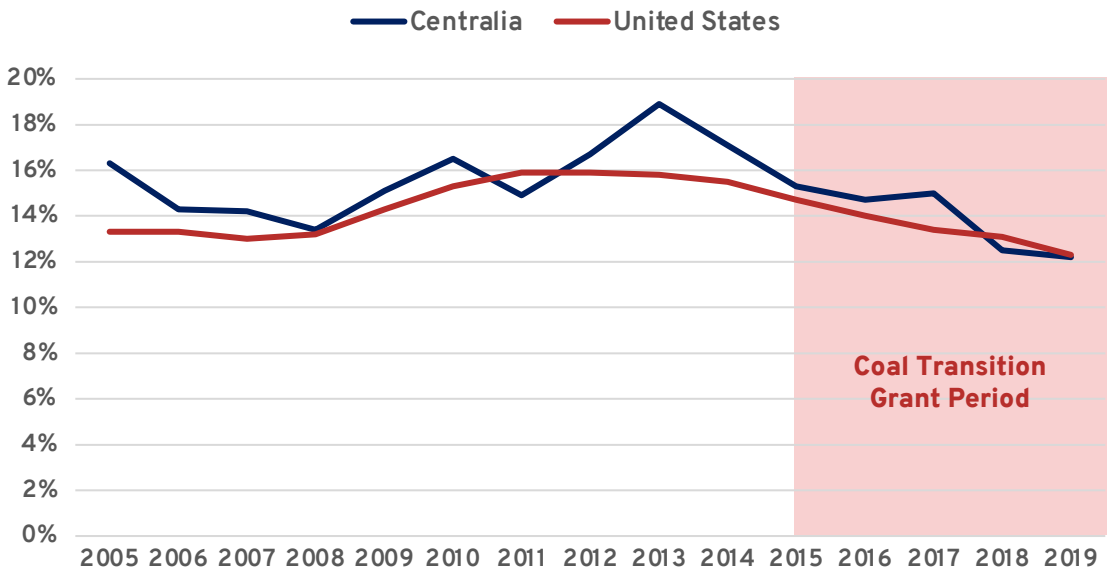
The poverty rate is a more volatile indicator, but it, too, has shown a persistent downward trend during the grant period in Centralia (Fig. 8).

Fig. 8: Poverty Rate, Centralia & U.S. 2015–2019



Source: U.S. Census Bureau, American Community Survey

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Not enough time has passed, nor has there been sufficient analysis to establish that the coal transition grants are the principal or even the primary cause of these outcomes. At present, we can only observe the correlation between the beginning of grant activity and accelerated job creation. We can also observe that the growth in jobs in Centralia has been organic, meaning that it has arisen principally from within the pre-existing economy and without the addition of any one major new manufacturer or facility in the area.

Why the Coal Transition Grant Program Is a Likely Cause of Economic Vitality in Centralia

The character of Centralia's economic growth is consistent with grant program areas of focus. A substantial portion of grant funding is being invested in economic sectors, such as energy efficiency, that have unusually strong multiplier effects with respect to jobs and commerce (Fig. 9, Fig. 10). Energy efficiency includes improvements in areas such as heating, ventilating, and air conditioning; lighting; insulation; and home and building appliances and systems, most of which are captured by the Bureau of Labor Statistics under Construction and the Specialty Trade Construction sub-sector in particular.

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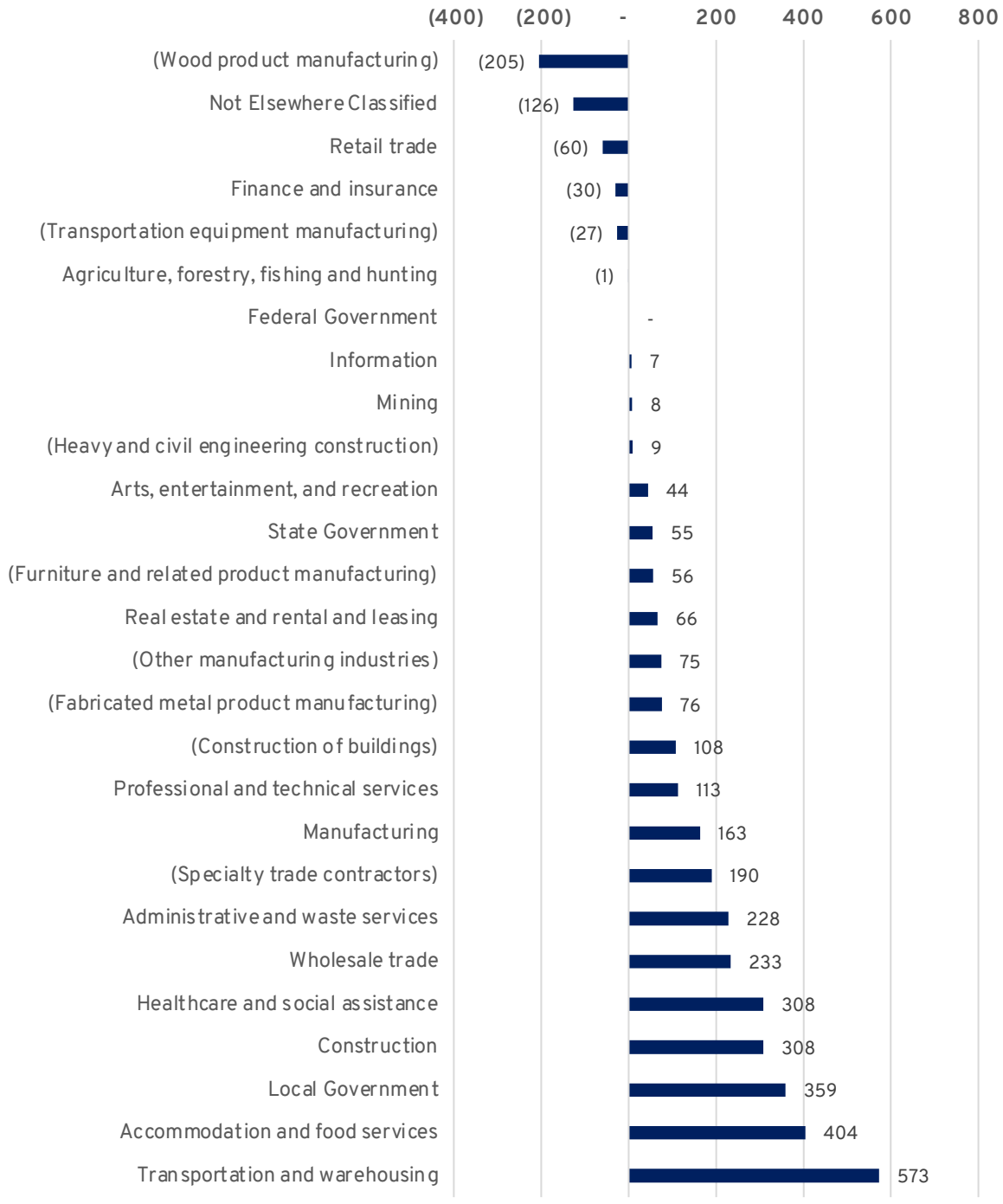
Fig. 9: Centralia Change in Number of Jobs by Sector, 2015–2019
(parentheses indicate sub-sector of larger main sector)



Source: Bureau of Labor Statistics

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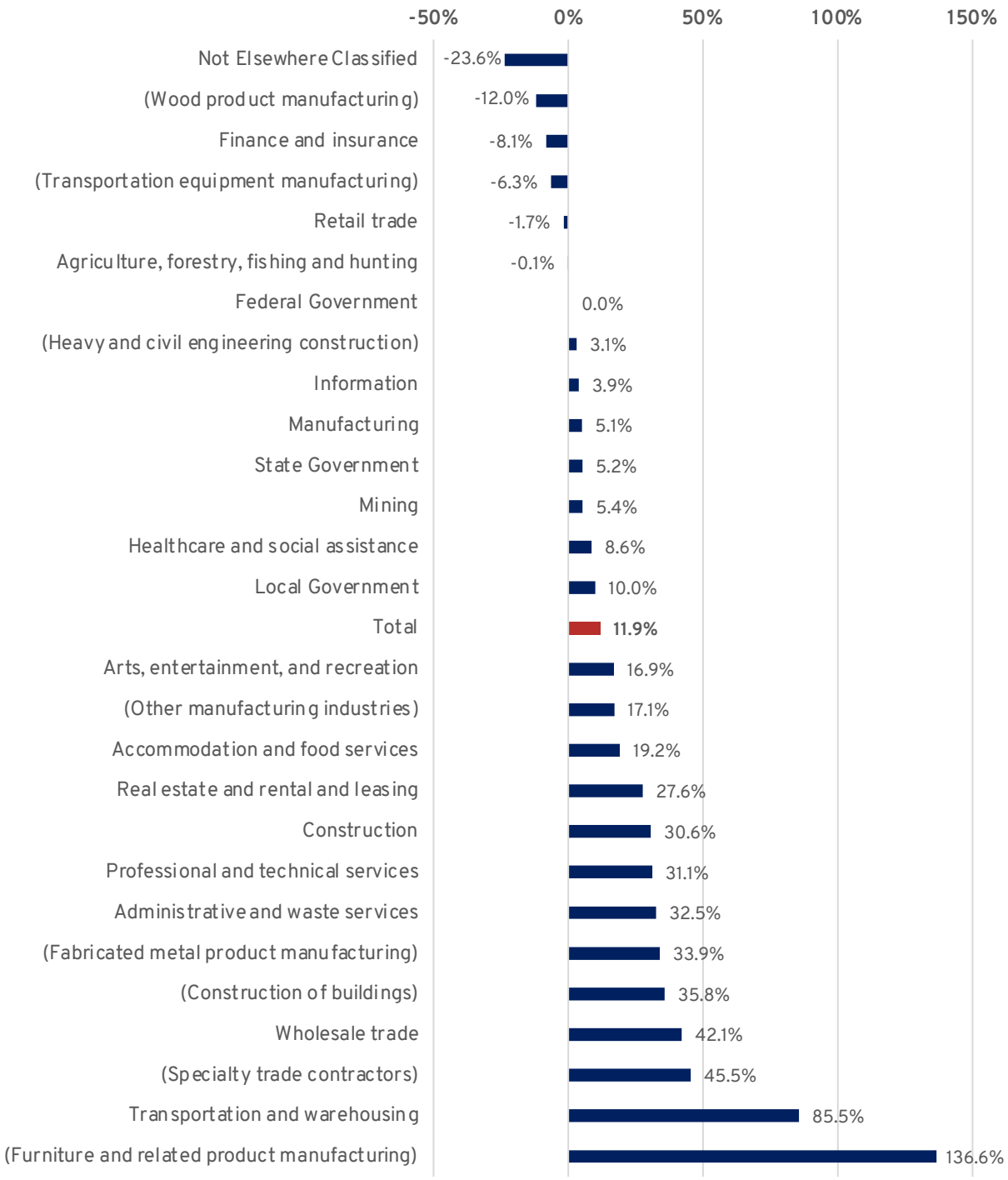
Fig. 10: Centralia Percent Change in Employment by Sector, 2015–2019
(parentheses indicate sub-sector of larger main sector)



Source: Bureau of Labor Statistics

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- The energy, energy efficiency, and education areas in which much of the grant funding is concentrated are highly labor-intensive, creating 2-3 times as many jobs per dollar invested as the mining and utility sectors.

- Work in these highly labor-intensive sectors tends to be performed by local suppliers and contractors—HVAC, door and window, lighting, and insulating, among others—so, most of the subsequent activity occurs within the local economy.

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- The impacts are immediate. In contrast to most economic development strategies, which depend on the dice coming up right sometime in the future, investments like those made in Centralia begin generating jobs and start yielding other economic benefits more or less immediately. As a staffer at the NW Energy Coalition, one of the parties to the Centralia agreement put it, energy efficiency is always "shovel-ready".

- Finally, the energy efficiency upgrades being made in Centralia result in safer, more comfortable living and workspaces that reduce absenteeism and healthcare costs and enhance residents' quality of life—attractive results for both residents and employers.

Although Centralia is somewhat isolated geographically, it is possible that some of the increased economic activity was driven by economic activity in adjoining areas. For instance, Washington's capital, Olympia, is 30 miles north of Centralia. However, similar proximity to the much larger Pittsburgh metropolitan area has not been enough to spur the economies of many Frackalachian counties.

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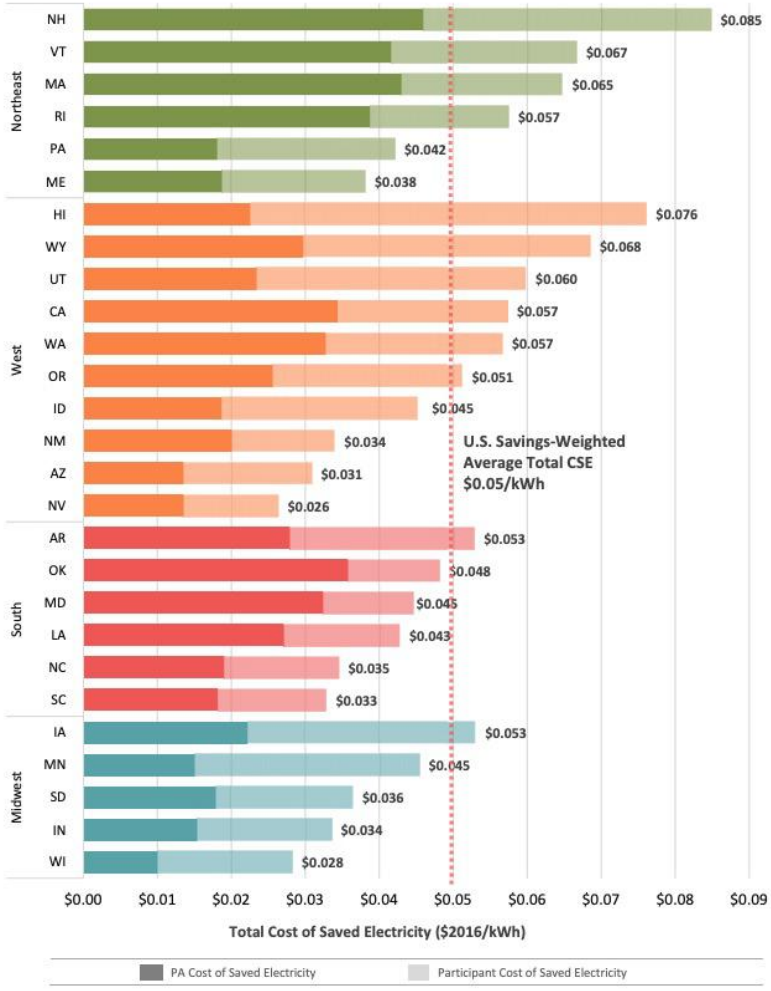
How Programmatic Energy Efficiency Investment Is Compounded by Recipient Investment

In a 2018 study of the cost of saving electricity (CSE),[9] researchers at Lawrence Berkeley Laboratory analyzed the economics of utility-administered energy efficiency programs nationwide. They found that the cost to utilities of saving electricity is on average about 2.5 cents per kilowatt hour, which in most cases makes it a less expensive option than investing money to acquire more power. But, they also discovered something else. Customers who participate in energy efficiency programs add their own funds to those provided by the programs, thereby increasing the total investment.

Nationally, for every 54 cents utilities invested in energy efficiency programs, customers kicked in another 46 cents. In some cases, the ratio was weighted even more heavily on the side of customer investment. For instance, in Pennsylvania, for every 18 cents that programs invested, customers added 24 cents (Fig. 11).

It should be noted that not all energy efficiency investments generate the same level of participant contribution. Understandably, low-income participants are not able to add as much supplemental investment as wealthier participants. However, taking that into account, it is still the case that for every dollar invested, customers tend to add on average close to another dollar, which proportionately increases the local economic impacts as measured by jobs, bill savings, and ultimately disposable income circulating in the local economy.

Fig. 11: Total CSE by State: Savings-Weighted Averages and Program Administrator (PA) vs. Participant Costs



Source: Lawrence Berkeley Laboratory

A Model for Appalachia and Other Economically Struggling Regions?

Centralia's suitability as a model for economic recovery in other places, particularly in Appalachia, hinges on the answers to three questions:

- To what degree are the economic gains being achieved in Centralia attributable to the economic transition plan?
- Are the circumstances in Centralia sufficiently similar to those in other places that one can reasonably expect that similar actions will yield similar results?
- And, assuming that the first two questions can be answered in the affirmative, where will other communities find the money to fund economic transition plans?

As noted earlier, time and further analysis will be required to determine the extent to which Centralia's economic boom Is attributable to the economic transition plan. However, disproportionate growth in economic sectors such as specialty construction and wholesale trade, which are closely associated with spending on energy efficiency, suggest some causal relationship. Energy efficiency upgrades in homes, businesses, and public facilities, combined with grant-driven investments in education and local institutions, have led to measurable improvements in quality of life for the region's residents. Finally, little else has changed in Centralia, such as the

How "Shovel-Ready" Energy Efficiency Investment Produces Immediate Economic Benefits

In contrast to the widely practiced hunter/gatherer concept of economic development in which local authorities scan the universe to find and attract new employers to locate in an area, the Centralia model on the other hand stimulates organic or "bottom up" growth from within the existing economy and businesses.

One key advantage of the latter approach is that, whereas the hunter/gatherer strategy typically takes years and thousands of staff hours to possibly achieve positive outcomes, direct investments of the kind being made in Centralia produce certain results more or less immediately. The contrast may be best exemplified by an expenditure of $70 million by Jobs Ohio -- the state's non-profit economic development corporation -- to prepare a building site for a prospective ethane cracker plant, that if constructed would eventually employ about 400 people on an ongoing basis.

The problem, as local residents well know is that the commitment of public funds began more than five years ago and, as of now, there is still no word from the prospective plant's sponsor, the Thai petrochemical company PTTGC, whether or not it will proceed with

acquisition of a new major employer, that might have altered economic circumstances.

The fact that Centralia is in the Pacific Northwest, one of America's most prosperous regions during recent decades, will almost certainly be a focal point for those who doubt that similar actions can produce similar results in Appalachia. But, just as Appalachia is home to economically prosperous places such as Asheville, North Carolina and Pittsburgh, the Pacific Northwest includes dozens of communities, large and small, that due to the decline of the timber and fishing industries, changes in agriculture, and other factors, have struggled to a degree and in ways that would be instantly recognizable to anyone visiting from the Ohio and Mon valleys. That's particularly true of Centralia, a community that literally built around a coal mine and a coal-fired power plant.

Those who would argue that Centralia's location along Interstate 5, between Seattle and Portland, gives it a major advantage over communities in the Ohio Valley will have to explain why Wheeling, West Virginia and Ohio's Frackalchian counties that are located along Interstate 70, between Pittsburgh and Columbus, aren't equally advantaged.

Answering the question of where the money would come from to fund similar efforts in dozens if not hundreds of economically struggling communities in Appalachia and elsewhere in America should begin with a recognition of how small the amount of money being disbursed by the Centralia Coal Transition Board is. In fact, the size of the economic impact relative to the amount of grant funds being disbursed in Centralia is itself the project, which appears less and less likely with each passing year, particularly after the failure of similar projects to get off the ground in nearby Wood County, West Virginia and in southwestern Pennsylvania.

In short, it is an investment of public funds on which there has not been and may never be a return. Coincidentally, the $70 million happens to be almost exactly proportional on a per capita basis, based on Belmont County's and Lewis County, Washington's populations, to the amount of money currently funding the Centralia Coal Transition Grant program.

Assuming an average energy efficiency retrofit cost of $5,000 per household, the $70 million would be sufficient to upgrade a third of all residences in Belmont County as well as many commercial and public buildings. And, with the addition of customer funds, the reach would be even greater.

Such an investment would produce immediate new business for local contractors, jobs for local residents, reduced utility bills, more disposable income for residents, and would result in a much-improved building and housing stock, which would add to the quality of life in Belmont County.

Joe Lovell/Times Leader

a reason for doubt.

But every businessperson knows that returns on investment can vary immensely. For instance, a number approaching $80 billion has been invested in Ohio's Frackalachian counties while failing to produce any measurable improvement in jobs or incomes. The disproportionality of that failure is many, many times greater than any disproportionality in Centralia's success. But as we have seen, when examined, it is perfectly explicable.

In any case, sources of potential funding for Centralia-scale economic transition efforts are proliferating, not diminishing. The resource of first resort should be the private sector and specifically the companies whose departure from communities that have sustained them often for decades confers upon them a moral if not yet a legal obligation to provide assistance. As noted previously, the Centralia Coal Transition Grants are being funded wholly by TransAlta Corporation, the owner of the closed Centralia coal mine and the power plant, which will be fully retired in 2025.

Meanwhile, led by the Biden administration the federal government is on the verge of providing billions of dollars in transition funding, much of it earmarked for clean energy transition of the type taking place in Centralia. Frackalachian counties are among those prioritized by the Biden administration for assistance.

State governments can also enact measures to provide funds that can be used for transition. Pennsylvania Governor Tom Wolf is proposing to do just that with incremental revenue that would result from Pennsylvania's pending membership in the Regional Greenhouse Gas Initiative. If property taxes, severance taxes, and mineral value taxes are amended to ensure that larger shares of the proceeds stay in host counties, those local governments can create and operate their own transition funds.

Finally, private philanthropy can play a role. In fact, given the stated goals of a number of foundations, a rather large opportunity to acquire significant private assistance may await the first Appalachian county to commit itself to clean energy transition.

In short, we can afford Centralia-scale transitions and we have the mechanisms to fund them, if we so choose. But will we choose to do so?

To a governing culture that has long adhered to a "hunter/gatherer" theory of economic development which emphasizes the quality of the business environment -- often code for cutting taxes and regulations -- and sending forth economic development officers in search of companies interested in establishing new facilities or moving existing ones, focusing instead on maximizing the quality of life in one's community may seem naive and even convoluted. Many local policymakers think of quality of life as a result of economic development, not its cause. And yet, as we see in Dr. Weinstein's work,[10] the data say otherwise and now in Centralia we have an example suggesting that quality of life is indeed a cause of economic prosperity.

That fact, combined with the resounding failure of, first, the natural gas industry and, more recently, the petrochemical industry to turn around economic prospects in Appalachia as a whole and Frackalachia in particular are desperate for a new and better and more sustainable approach.

What do Frackalachia and Appalachia have to lose?

Bloomberg Philanthropies/Powering Past Coal Alliance

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