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AN ECONOMIC HISTORY AND ANALYSIS OF RURAL AMERICA IN THE NEW
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ABSTRACT

This thesis is an analysis of the economic history and present circumstances of rural American economies. I contend that the problems facing rural America are often overlooked due to inaccurate conceptions of rurality that result from the shared American historical memory. The situation in rural America is further complicated by cyclical economic deterioration that is primarily associated with outmigration trends. I argue that the worsening economic conditions in rural America have resulted in declining prime-age labor force participation rates and increased instances of drug abuse that resulted in the opioid epidemic. I maintain that the economic difficulties that plague rural America are not the result of unalterable transformations to the global economy, but can be rectified through policy, education, and drug-prevention measures.

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Introduction

*“Myths and legends die hard in America. We love them for the extra dimension they provide, the illusion of near-infinite possibility...”*¹ - Hunter S. Thompson

Rurality in America is often represented through a blend of myth and reality that exemplify the most foundational elements of the American national identity. The legacy of America’s rural heritage is inseparable from the nation’s establishment, which was predicated upon a series of Founding Principles that served to define a national character that transcended partisan interest and prejudice. The Declaration of Independence referenced the necessity “for *one people* to dissolve the political bands which have connected them with another” and thereby affirmed the existence of an imagined American community through mention of a singular people.² To define the character of that national community, America’s Founders drew inspiration from revered conceptions of the nation’s countryside. The archetypal portrait of the American frontiersman was one of an individual who owned and cultivated a relatively small plot of land. These early-Americans were considered forthright, self-reliant, and above all else: independent individuals essential to the success of republican governance, as sanctioned through the “Laws of Nature and of Nature’s God”.³

The personal acuties held by the nation’s Founders proved instrumental in defining the historical memory of the shared, although intangible, American cultural consciousness. In 1785,

¹ Hunter S. Thompson, *The Great Shark Hunt: Strange Tales from a Strange Time*, London: Picador, 2012, 406.

² "Declaration of Independence: A Transcription," National Archives and Records Administration, <https://www.archives.gov/founding-docs/declaration-transcript>.

³ "Declaration of Independence: A Transcription," National Archives and Records Administration

two years after the conclusion of the Revolutionary War, Thomas Jefferson characterized the relationship between the nation and those living in the countryside, whom he termed the “cultivators of the earth”. In reflection upon the long-term feasibility of entrusting self-governance to those men in the American countryside, who often lacked formal education and readily available access to major urban centers, Jefferson wrote: “They are the most vigorous, the most independent, the most virtuous, and they are tied to their country and wedded to its liberty and interests by the most lasting bands.”⁴ Jefferson argued that the American countryside encompassed the most faithful and committed elements of the revolution due to their resolute devotion to the nation’s Founding Principles. In addition to a conceptual attachment to liberty, those individuals in the early-American countryside were materially connected to the nation’s physical geography. The American countryside represented an allegorical unification between the nation’s immaterial philosophical substructure and corporeal ground. This association served to distinguish the concept of the countryside and rurality from a simplified designation of geographic place. Instead, the countryside, and rural communities contained therein endure as an homage to an early-American ideal that has existed within the shared national memory of the imagined American community since the mid-eighteenth century.

However, over the course of the twentieth century, that allegorical depiction of rurality in America became increasingly opposed to modern realities. Throughout the twentieth century, rural regions were hollowed out as Americans increasingly transitioned from rural to urban living spaces. According to the US Census Bureau, 54.4 percent of the population was considered rural in 1910. As of 2010, that figure had declined to 19.3 percent.⁵ Despite

⁴ “From Thomas Jefferson to John Jay, 23 August 1785,” *Founders Online*, National Archives, <http://founders.archives.gov/documents/Jefferson/01-08-02-0333>.

⁵ U.S. Census Bureau, 1910 to 1990 Censuses; 2000 decennial census, Table P002; 2010 decennial census, Table P2.

constituting a relatively low percentage of the total population, rural America today encompasses just under 60 million people or nearly a fifth of the nation's population. Rural economies and the occupations associated with those economies have been, and are being, altered by external undercurrents that are difficult, if not impossible, for rural communities to contain. The inherent geographic remoteness and low population density, which define rural areas, proved problematic for the promotion of routine economic activity. Furthermore, out-migration from rural areas, driven by deteriorating economic conditions, resulted in reduced local tax revenues and a diminished labor force that served to worsen the prospect for economic expansion and infrastructural investments.

Moreover, rural communities were more likely than their urban counterparts to rely upon a single industry or employer. This produced unstable local economies that exposed rural regions to hasty economic gains and pitfalls. Limited economic diversification also exacerbated the ramifications of economic downturns that disproportionately affected an industry that served as the mainstay for the local economy. For instance, American manufacturing wages have historically accounted for a greater percentage share of rural, as opposed to urban, earnings. Therefore, rural economies suffered a relatively greater economic consequence, compared to their urban counterpart, when the survival rate of American manufacturing plants plummeted in the early twenty-first century.

These serious challenges to economic growth and stability were further worsened by the Great Recession, which marked a period of global economic decline that began in 2007 and stabilized in 2009. In the years following stabilization, it was evident that uniform national recovery was an unrealistic prospect given that rural economies were slower and more resistant

to revival efforts than their urban counterparts. This realization reinforced the reality that for many rural communities the most reliable economic constant remained chronic poverty, which affects one in four rural residents. Of the nation's two hundred most persistently poor counties, all but five are considered rural.⁶ In addition to comparatively poor economic performance, rural regions possess the highest occurrence of drug and alcohol addiction rates in the nation. The extent of the drug problem facing rural America worsened alongside a national opioid epidemic that began in the late 1990s. The scarcity of medical infrastructure and professionals in rural areas further complicates the ability of rural areas to effectively respond to emergencies and provide preventative care measures.

Rural America's place within the shared national memory, notwithstanding the inaccuracy of its portrayal, remains influential and uniquely positions rural regions in light of their foothold within the shared American community. Therefore, an opportunity to respond to rural ails through an understanding of economics and an appeal to the mythic underpinnings of contemporary rural life exist and may improve the circumstances of rural residents and the overall well-being of the nation. This would require a combination of economic, political, and cultural reforms that undoubtedly threaten to affect the broader American economy and the twenty-first century's geopolitical status-quo.

⁶ "Rural Poverty & Well-being," USDA ERS, April 18, 2018 <https://www.ers.usda.gov/topics/rural-economy-population/rural-poverty-well-being/>.

Chapter 1

The Rise and Fall of American Manufacturing

The American economy remained predominantly agrarian throughout the eighteenth and mid-nineteenth centuries. However, participation in the manufacturing industry began to increase when Samuel Slater built the first American factory in 1790. The factory was a cotton-spinning mill located in Pawtucket, Rhode Island. It was built on the shore of the Blackstone River and was fueled by the force of the river's current. The success generated by the industrialization of the textile industry marked the beginning of American manufacturing. The development of the high-pressure steam engine in 1804 further expanded America's industrial capacity and served as an adaptable source of energy for a myriad of industries including manufacturing, shipping, and printing.⁷ Likewise, interchangeable parts were proven commercially viable by Eli Whitney in the early nineteenth century when his company, Whitney Armory, demonstrated its ability to fulfill an order of 10,000 muskets while employing a largely unskilled workforce at a relatively low cost through an effective process of standardization.⁸ The components of the muskets were identical and therefore could be assembled through following proscribed measurements and procedural construction steps. In the decades leading up to the Civil War, American industry experienced comparatively significant growth that was concentrated in the North.

By 1860, the extension of railway lines that linked northern cities to the agriculturally rich Midwest provided a growing northeastern population with a sufficient food supply while

⁷ "The Rise of American Industry," Ushistory.org, <http://www.ushistory.org/us/25.asp>.

⁸ "The Factory," The Eli Whitney Museum and Workshop, <https://www.eliwhitney.org/7/museum/about-eli-whitney/factory>.

also fostering the exchange of industrialized agricultural equipment, such as the steel plow and mechanical reaper. These technological advancements alleviated the chronic problem of labor shortages, which afflicted the Midwestern agricultural sector. The South's lower population density and reliance on plantation farming and slave labor prevented a broader occurrence of industrial proliferation. However, in the decades following the Civil War, American manufacturing experienced a broad period of growth that was a result of domestic reconstruction efforts, substantial rates of post-1865 levels of immigration, westward settlement, and an expansion of urban metropolitans.

In 1900, the percentage of workers employed as farmers or farm laborers dropped to 40 percent.⁹ The agricultural sector never regained a majority share of the American economy. The newfound preeminence of American manufacturing continued to expand throughout the opening decades of the twentieth century. Industry largely benefitted from the nation's depth of natural resources, consistent population growth, and greater efficiency and availability of energy sources including electricity and the internal combustion engine. Moreover, the manufacturing industry experienced significant improvements to its productive potential through an efficiency revolution that resulted in the proliferation of productive techniques like the Bessemer process and employee specialization. The Great Depression, which began in 1929, led to a decline in manufacturing and an increased rate of unemployment that affected nearly every economic sector and indicator. By 1940, American manufacturing and the economy at large appeared to stabilize. The United States entered the Second World War on December 7, 1941, after the Japanese attack on Pearl Harbor.

⁹ Richard White, "The Rise of Industrial America, 1877-1900 | Gilder Lehrman Institute of American History," The Gilder Lehrman Institute of American History <https://www.gilderlehrman.org/history-now/rise-industrial-america-1877-1900>.

The Second World War necessitated an unparalleled degree of military and industrial mobilization to defeat the mechanized Axis war machine. The rapid expansion of wartime manufacturing was accompanied by fundamental changes to the makeup of the American labor force. Millions of men were conscripted for military service and required to leave their previous areas of employment. Due to the pressing need for an increased labor force, women and African Americans were encouraged to take jobs in manufacturing and other industrialized sectors to support the war effort. Between 1940 and 1945, the female labor force grew by 50 percent and African Americans gained access to high paying jobs that were previously reserved for white men.¹⁰ Those employed in the wartime manufacturing sector benefited from an increase in disposable income, due to the intensity of production and high wages that accompanied manufacturing jobs between 1941 and 1945.¹¹ The proliferation of disposable income served as a precursor to mass American consumerism that would define the 1950s and later decades of the twentieth century.

The conclusion of the Second World War in 1945 forced the United States to confront the challenge of demobilization. The American military comprised more than twelve million individuals, who represented nearly twelve percent of the nation's total population. To further complicate matters, more than seven million of those servicemen were stationed abroad.¹² In order to maintain low unemployment, the American government passed the Servicemen's Readjustment Act, popularly known as the GI Bill, in 1944 to finance veterans' education and training. In practice, the GI Bill ensured that the influx of those returning to the labor market

¹⁰ "Women & World War II," MSU Denver, <https://msudenver.edu/camphale/thewomensarmycorps/womenwwii/>.

¹¹ "Take A Closer Look: America Goes to War," The National WWII Museum | New Orleans, <https://www.nationalww2museum.org/students-teachers/student-resources/research-starters/america-goes-war-take-closer-look>

¹² John C. Sparrow, *History of Personnel Demobilization in the United States Army* (Washington, DC: Department of the Army, 1952), 58.

from the war was staggered, as approximately 7.8 million veterans participated in the program.¹³

The program also served the dual purpose of transitioning a large faction of the American workforce into either service or skilled labor industries. Moreover, the post-war demobilization and reemployment efforts were aided by an extensive withdrawal of women and African Americans from the workplace.¹⁴

For the next 25 years, the manufacturing sector continued to represent an increasingly greater portion of the American economy. The degree of economic influence manufacturing had upon the local economy varied broadly from region-to-region. Generally, urban centers produced the greatest amount of manufactured goods; however, comparatively speaking, manufacturing played a more essential and role in rural economies.¹⁵ In many rural towns throughout the United States, the local manufacturing sector became an anchor employer and consequently financed and maintained many of the community institutions in those towns. Rural populations depended on their anchor employer for a stream of steady employment opportunities and good wages that could be used by manufacturing employees to support the longevity of other local businesses. Therefore, the decades-long decline of American manufacturing, which began in 1973, had comparatively greater economic ramifications for rural areas.

The 1973 Oil Crisis threatened the availability of the nation's largest imported fuel source, which powered many facets of American manufacturing. By the 1970s, the United States' domestic oil production had begun to decline and as a result, the national oil imports rose,

¹³ Rebecca Burgess, "Veterans Snapshot," AEIdeas, November 06, 2017, <https://www.aei.org/publication/veterans-snapshot-2017/>.

¹⁴ "Women and Work After World War II," PBS, <https://www.pbs.org/wgbh/americanexperience/features/tupperware-work/>.

¹⁵ Sarah Low, "Manufacturing Is Relatively More Important to the Rural Economy than the Urban Economy," USDA, September 12, 2017 <https://www.usda.gov/media/blog/2017/09/12/manufacturing-relatively-more-important-rural-economy-urban-economy>.

despite the artificially increased price of OPEC oil. This resulted in a trade deficit that was coupled with an OPEC oil embargo, which targeted countries that supported Israel during the Yom Kippur War.¹⁶ The embargo resulted in a production decline in the United States that served as an early indicator of the potential harm associated with American over-dependence on oil imports.

In 1979, a second oil crisis, which stemmed from instability generated in the aftermath of the Iranian Revolution that deposed the Shah, nearly doubled the price of oil over the next year. The increased price of oil was especially costly for industrial and manufacturing sectors that relied on the fuel source to power heavy machinery. The consequences of the second oil crisis were significant and led President Jimmy Carter to institute price controls. This development alongside recent memory of the first crisis, which had occurred just six years prior, was sufficient to cause panic among many Americans.¹⁷ The American economy did not suffer any long-term adverse economic ramifications as a result of the 1970s oil crises, but the nation could no longer consider its superpower status as a title that rendered it exempt from economic antagonization.

American manufacturing was again challenged in the 1980s when the United States experienced a decline in its share of global Gross Domestic Product (GDP).¹⁸ A multitude of factors contributed to the decline of America's share of the global GDP. For instance, it is important to note that, in and of itself, claiming a lesser portion of the global percentage of GDP

¹⁶ Greg Myre, "The 1973 Arab Oil Embargo: The Old Rules No Longer Apply," NPR, October 16, 2013, <https://www.npr.org/sections/parallels/2013/10/15/234771573/the-1973-arab-oil-embargo-the-old-rules-no-longer-apply>.

¹⁷ Laurel Graefe, "Oil Shock of 1978–79," Federal Reserve History, November 22, 2013, <https://www.federalreservehistory.org/essays/oilshockof19781979>.

¹⁸ "GDP Growth (annual %)," GDP Growth (annual %) | Data, <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?end=2017&start=1961>.

was not unexpected nor necessarily harmful. The global GDP underwent a collective rise throughout the 1960s and 1970s, as formerly hostile economies in West Germany and Japan experienced growth in their manufacturing and technological sectors. Additionally, the economies of the United Kingdom and France were expanding after a period of post-war recovery. Moreover, the introduction of economic reforms to the Chinese economy, led by Deng Xiaoping after Mao Zedong's death in 1976, also sparked a dramatic growth in both Chinese and global GDP.¹⁹ Therefore, the decline of America's share of global GDP and manufacturing representation were causes for concern insofar as they preempted a deceleration in the manufacturing sector that resulted in job losses, which were to manifest in the United States after an unexpectedly strong GDP performance in the 1990s.

The national and economic achievements of the 1990s included: launching the Hubble Space Telescope, ending the Cold War due to the collapse of Soviet Union, the overwhelming success of military operations in the Gulf War, and the proliferation of the personal computer and development of the world wide web. The opening events of the twenty-first century were to stand in stark contrast to the optimistic sentiments of the previous decade. By the year 2000, the American economy featured an increasing deficit and a stock market marred by the implosion of the Dotcom Bubble. The severity of the worsening American deficit was the subject of debate amongst economist that did not produce a clear consensus since some measure of a national trade deficit is generally considered non-threatening.²⁰ However, the Dotcom Bubble had real economic implications for America's stock market. It began as the result of a sell-off panic that

¹⁹ Tomas Hirst, "A Brief History of China's Economic Growth," World Economic Forum, July 30, 2015, <https://www.weforum.org/agenda/2015/07/brief-history-of-china-economic-growth/>.

²⁰ Christopher Chantrell, "Federal Deficit Analysis," US Federal Deficit by Year, https://www.usgovernmentspending.com/federal_deficit_chart.html.

caused a sharp decrease in investment capital for dotcom companies, which were largely cash-strapped enterprises rendered particularly vulnerable to decreases in their stock prices. The stock market lost 10 percent of its total value in the opening weeks of the downturn, and nearly a year later the majority of dotcom companies had failed and trillions of investment capital disappeared from the market.²¹

The American economy was also radically affected by the September 11, 2001, terrorist attacks that struck the economic and political capitals of the nation. The attacks presented direct short-term economic challenges to northeastern economies that were connected to corporations in the New York and Washington, DC areas. The attacks drew the United States into a protracted and costly conflict in the Middle East and prompted the creation of extensive and extremely expensive bureaucracies, such as the Department of Homeland Security and Transportation Security Administration. As of 2017, the cost of the war and additional spending allocated to Homeland Security, the Department of Defense, and Veteran affairs since September 11, 2001, has brought the total cost of America's longest conflict to a staggering 5.6 trillion.²² This sum was largely borrowed and contributed to a significant increase in the national debt, as a policy of taxation was never developed to address the tremendous cost of a war in the Middle East that continues to persist seventeen years later into 2018. The interest costs on the borrowed war financing would add more 7.9 trillion to the national debt over the next three decades even if all American military operations in the Middle East were halted immediately.²³ The largest holders of post-9/11 military debt include American citizens who purchased debt via pension plans and

²¹ Ben Geier, "What Did We Learn from the Dotcom Stock Bubble of 2000?" Time, March 12, 2015, <http://time.com/3741681/2000-dotcom-stock-bust/>.

²² Neta C. Crawford, "United States Budgetary Costs of Post-9/11 Wars Through FY2018," Watson Institute International and Public Affairs, November 2017, [https://watson.brown.edu/costsofwar/files/cow/imce/papers/2017/Costs of U.S. Post-9_11 NC Crawford FINAL pdf](https://watson.brown.edu/costsofwar/files/cow/imce/papers/2017/Costs%20of%20U.S.%20Post-9_11%20NC%20Crawford%20FINAL.pdf).

²³ Neta C. Crawford, "United States Budgetary Costs of Post-9/11 Wars Through FY2018,"

mutual funds. About 40 percent of the post-9/11 American military debt is held by foreign purchasers predominately from China and Japan.²⁴

Despite the historical correlation between wartime and increased manufacturing, by 2005 the American manufacturing sector had experienced a 17 percent reduction in total employment figures since the turn of the century.²⁵ Moreover, in 2003 the manufacturing labor force was overtaken by the size of the American retail sector.²⁶ This shift is particularly disheartening due to the fact that retail goods are primarily imported and jobs in this sector are often part-time, low skill, and poorly paid. Conversely, the manufacturing sector demands a full-time labor force and provides relatively high wages for workers without a college degree. The wage premium for high school graduates in the American manufacturing sector broadly exceeds the wages for nonmanufacturing industries. The wage premium is an economic term that refers to the average amount that wages of one population are greater than the wages of another population.

For instance, from 2012 to 2013 the national manufacturing wage premium for high school graduates was \$1.78 per hour. This hourly rate meant that the average high school graduate employed in manufacturing made a 10.9 percent higher wage than those of comparable educational level employed in other industries.²⁷ Therefore, the decline of American manufacturing and the rise of retail had tangible ramifications with regard to an individual's

²⁴ Rosella Cappella Zielinski, "How Do War Financing Strategies Lead to Inequality? A Brief History from the War of 1812 through the Post-9/11 Wars," Watson Institute International & Public Affairs, June 28, 2018, https://watson.brown.edu/costsofwar/files/cow/imce/papers/2018/Cappella_Zielinski_June_2018_War_Financing_and_Inequality.pdf.

²⁵ "Consumer Spending and U.S. Employment from the 2007–2009 Recession through 2022: Monthly Labor Review," U.S. Bureau of Labor Statistics, October 2014, <https://www.bls.gov/opub/mlr/2014/article/consumer-spending-and-us-employment-from-the-recession-through-2022.htm>.

²⁶ Vaclav Smil, *Made in the USA: The Rise and Retreat of American Manufacturing*, Cambridge, MA: MIT Press, 2015, 133.

²⁷ Robert E. Scott, "The Manufacturing Footprint and the Importance of U.S. Manufacturing Jobs," Economic Policy Institute, January 22, 2015, <https://www.epi.org/publication/the-manufacturing-footprint-and-the-importance-of-u-s-manufacturing-jobs/#epi-toc-12>.

spending power and the stability of local economies. The deterioration of American optimism and high levels of economic growth, especially after the economic boom years of the 1990s, were further exacerbated when the nation was struck by the economic crisis of 2008. The downturn marked the greatest economic recession since the Great Depression and the American manufacturing sector quickly felt its impact, as mass layoffs spread through nearly every facet of the industry. An unskilled worker's ability to remain in the middle class through a career in the manufacturing sector was diminishing.

From December 2007 through June 2009, employment levels in manufacturing fell by 14.6 percent, and two million jobs were lost.²⁸ The severity of the manufacturing industry's decline was complicated by regional variance. For instance, rural and urban manufacturing centers were both heavily impacted by the recession; however, important differences between these two regions led to an unbalanced outcome. Rural areas were less equipped to handle economic downturns, because of the larger share of unskilled workers and aging populations in the rural manufacturing labor force. However, the percentage of rural unemployment that resulted from the economic crisis was lower than the percentage increase in urban unemployment in the manufacturing industry. That being said, this disparity may be the result of an already weakened level of rural unemployment. In essence, rural manufacturing had already suffered from higher degrees of unemployment and industry retractions that occurred prior to 2008.

Since the end of the economic crisis in 2009, rural recovery has been slow and complicated by stagnating, and even negative, rates of rural population growth. Many young

²⁸ Christopher J. Goodman and Steven M. Mance, "Employment Loss and the 2007–09 Recession: An Overview," The 2007–09 Recession: Overview, April 2011, <https://www.bls.gov/opub/mlr/2011/04/art1full.pdf>.

people migrated out of rural areas in order to find work. After employment losses associated with the Great Recession, rural population growth had slowed to a near zero national average. It may even be reasonable to assume that rural unemployment statistics are misrepresented because the decline in population decreased the competition for rural employment, which would have the short-term impact of increasing the employment statistics. Additionally, low employment growth in rural manufacturing was hampered by an education gap between rural and urban areas.

Rural economies possessed a smaller share of college-educated and skilled labor workforces. About a third of the deficit between urban and rural employment growth is a result of rural educational deficiencies across all levels of industry.²⁹ The apparent deficiency of skilled and educated workers in rural economies is particularly significant in consideration of the fact that in 2010 Apple was the only manufacturer listed in the top five largest NYSE companies.³⁰ In 2010, Apple hardly employed any unskilled labor in the United States preferring instead to outsource this stage of production to Asia. Therefore, inadequate educational offerings and insufficient skilled labor became factors affecting rural communities abilities to maintain the proficiencies required to fully participate in the post-2010 manufacturing sector.

One of the most common complaints of manufacturing executives is the mismatch between open skilled labor positions and the largely unskilled manufacturing labor force in the United States. The problem appears to require short-term and long-term consideration, as simply instituting programs designed to retrain the current labor force will likely not impact future unskilled workers. Further government investment in trade schools may serve to alter the

²⁹ Thomas Hertz et al., "Rural Employment in Recession and Recovery," USDA ERS - Rural Employment in Recession and Recovery, October 06, 2014, <https://www.ers.usda.gov/amber-waves/2014/october/rural-employment-in-recession-and-recovery/>.

³⁰ Vaclav Smil, *Made in the USA: The Rise and Retreat*, 135.

national trajectory to produce fewer unskilled workers. However, technical schools must have adequate access to their student's time, which would require policy measures that challenge the orthodoxy surrounding compulsory high school attendance and required course curriculums. The notion of challenging the legitimacy of a complete twelfth-grade high school education may seem antiquated; however, other nations have demonstrated the success of fostering specialized education or training that begins at a younger age.

For instance, secondary education in Japan and South Korea is generally characterized by academic rigor that is designed to prepare students for the challenges associated with attaining a university degree. These students are given a tremendous course load that forces individuals and their families to consider whether college would be a proper fit. In this sense, after completing high school, the student should have a fair understanding of their skill sets and the likelihood that they will be able to successfully complete college. The German schooling system is another interesting case study in that students must pass a series of examinations in order to continue their education into college. There are three levels of German compulsory education: Gymnasium for those going to university (highly skilled labor), Realschule (skilled labor i.e. middle managers), and Hauptschule (skilled physical labor or vocational training). Students are placed onto one of these three educational tracks in accordance with their performance on standardized examinations.

In order to attend Gymnasium, German students must pass a qualification exam known as the Abitur. If a student cannot pass the Abitur, then that student will graduate from either the Realschule or Hauptschule. In this manner, the German compulsory education system ensures that all German students will graduate from an institution with proficiency in some form of skilled labor. In contrast, an individual who goes through the American compulsory education

system and does not enroll, or is not offered enrollment in a vocational program, will graduate with a high school diploma and no experience with skilled labor. As a result, American workers are more likely than their European or Asian counterparts to need additional training or educational programs for a variety of trades and professions. Their employers are called upon to provide such training. The fact that relatively more Americans must receive additional training compared to workers in other countries does not suggest American laborers perform more sophisticated tasks; instead, it highlights a lack of proper educational outcomes within the compulsory American educational system.

The American university system also presents challenges to the maintenance of a properly trained and educated labor force. Although American universities have historically played a pivotal role in elevating the nation's institutions of higher learning into some of the best in the world, in recent decades a myriad of circumstances has led to doubt regarding the efficacy and value of American higher education proportional to the costs. The rapid and sizable increase in the cost of college has resulted in a massive student loan crisis that was exacerbated during the Great Recession when college graduates were forced to shoulder the burden of their loans without the monetary safety net associated with access to readily available, well-paying career opportunities that require a degree. In light of the twenty-first century's changing economic landscape, college degrees were increasingly considered vital to ensuring job security and economic mobility. However, the influx of students into the university system has increased the dropout rate and contributed to a broader increase in the average amount of time it takes to receive a degree. A concerted effort to produce a cultural change that emphasizes the potential positive elements of a career in skilled labor may alleviate the college dropout rate and debt burden incurred by young Americans.

In addition to educational reforms, the expansion of outsourcing has been a subject of recurring concern. Those who argue that outsourcing does not have a significant impact on the American economy often state that outsourcing is a large contributor to the relatively inexpensive prices of foreign manufactured goods. This argument follows that outsourcing serves as a critical economic factor that enables the poorest Americans to consume more finished manufactured goods, which were produced through the utilization of cheap foreign labor. Even if this were the case, it is necessary to examine the differences in cost between foreign and American production.

In 2017, Apple maintained a 64 percent profit margin from the iPhone X, which the company produced abroad primarily in Asia. For instance, the iPhone X smartphone costs the firm around \$357.50 to produce and Apple sells the phone for \$999, which roughly equates to a gross margin of 64 percent.³¹ According to MIT Technology Review, if the iPhone X were assembled in the United States using parts produced from abroad it would add roughly \$30 to \$40 more per phone in production costs.³² If Apple were to go a step further and produce the components of an iPhone X in the United States it would add again an additional \$30 to \$40 to the cost of the phone. This cost increase does not take into account the low volume and uncompetitive production figures American factories would initially yield, as the proper supply chain channels would take time to develop. Accounting for these shortcomings, and assuming the necessary raw materials were purchased on international markets, it is estimated that an American produced iPhone X would cost nearly \$100 more than its Chinese counterpart.³³

³¹ Stephen Nellis, "Apple's iPhone X Has Higher Margin than iPhone 8: Analysis," Reuters, November 06, 2017, <https://www.reuters.com/article/us-apple-iphone/apples-iphone-x-has-higher-margin-than-iphone-8-analysis-idUSKBN1D62RZ>.

³² Konstantin Kakaes, "The All-American iPhone," MIT Technology Review, June 09, 2016, <https://www.technologyreview.com/s/601491/the-all-american-iphone/>.

³³ Konstantin Kakaes, "The All-American iPhone," MIT Technology Review

It is interesting to note that Apple's CEO, Tim Cook, stated that the company does not outsource its production because of savings generated from cheap labor costs. He claimed that the United States lacks the supply chain acumen found in China and does not possess the proper skilled labor force that is required to mass manufacture the iPhone. Cook, in reference to the current state of the Chinese workforce, stated:

"It's that vocational expertise is very deep here [in China]. And I give the educational system a lot of credit for continuing to push on that even as others were de-emphasizing vocational. Now I think many countries in the world have woke up and said this is a key thing and we've got to correct that, but China called that right from the beginning."³⁴

Cook's statement lends credibility to the notion that the United States should rethink its current lack of emphasis on the legitimacy of vocational education and training. It is disingenuous to pretend that the only reason Apple is manufacturing its products in China is because of supply chain and expertise advantages. There are many other places in the world, particularly in Africa, where the price of labor is only a small fraction of China's current labor pricing. If Apple were to invest its profits into creating intricate supply chain networks in these regions and imported skilled workers from Asia to complete the more sophisticated tasks, the company could in a matter of time substantially reduce the input costs for the iPhone and increase their percentage share of the profit margins.

However, the allure of access to the vast domestic Chinese market prevents Apple from moving its production away from mainland China. In other words, Apple's production network is deliberately designed to court future sales and gain a foothold in the Chinese market. China is in possession of the world's largest population and every year a greater number of individuals

³⁴ "How Much Would an iPhone Cost If Apple Were Forced to Make It in America?" Forbes, January 17, 2018, <https://www.forbes.com/sites/quora/2018/01/17/how-much-would-an-iphone-cost-if-apple-were-forced-to-make-it-in-america/#2efb018f2d2a>.

are being lifted out of poverty. The population as a whole is using its newfound disposable income to purchase consumer products. However, access to the Chinese market and population is closely regulated and guarded by the Chinese government. In short, the allure of Chinese outsourcing is likely more complicated than pure, synchronic economic analysis would suggest, and American manufacturing companies are likely to succumb to it and further relegate their manufacturing operations to offshore sites.

This leads to the question of whether the United States would be justified to take action to protect companies and consumers from China taking advantage of their desire to access the rapidly expanding Chinese market. In other words, the United States should have the ability to block business deals that explicitly work to the detriment of American interests or American workers. The pace at which the Chinese economy has grown since the 1980s reflects an unprecedented leap forward in economic success and forte. Throughout the past three decades, China embraced massive efforts to industrialize the national economy. These efforts yielded considerable dividends, as China transformed its global stature from that of an untrained textile producer to a major economic juggernaut at the forefront of the international export industry.

A decade ago, the Chinese government implemented measures to maintain the relative weakness of the renminbi, China's official currency. As money began to pour into China owing to the foreign consumption of Chinese products, industrial investments, and infrastructural developments, the value of the renminbi remained artificially low, making Chinese goods and labor comparatively inexpensive. The manufactured weakness of the renminbi allowed the Chinese government to strengthen the nation's position as a global exporter and incentivized the development of domestic manufacturing. The surplus of cheap and undervalued currency led to a

national inflation rate of near 10%, which, in turn, made it easier for the Chinese government to borrow and pay off debt obligations during the past decade of growth.³⁵

In hindsight, the international community and the United States should have labeled China as a currency manipulator and brought charges against them in an international forum, such as the United Nations or the World Trade Organization. China entered the World Trade Organization in 2001 and began to suppress the growth of the renminbi to maintain a comparative advantage in industries oriented toward export.³⁶ During this time, the United States was largely preoccupied with the Iraq War and other diplomatic nightmares in the Middle East. Indicting China, at a time when the attention of most Americans was diverted away from the Far East and onto the Middle, unnecessarily risked threatening the economic relationship between the two nations.

However, the decision to not prosecute Chinese efforts to manipulate their currency damaged the United States, as China's success in the export market was to the detriment of American manufacturing workers. The United States could have adjusted its economy by transferring workers into more technical and service-oriented fields to circumvent the detrimental economic impact of Chinese exports. However, for a myriad of reasons, a large-scale adjustment in the American labor force did not occur and may not have been an attainable reality. As a result, many communities across the United States continue to suffer economic hardship brought about by American political and financial trepidation. The hardship was felt most prominently in areas dependent upon manufacturing and contributed to a decrease in the

³⁵ Ronald McKinnon and Gunther Schnabl, "China and Its Dollar Exchange Rate: A Worldwide Stabilizing Influence?" Stanford Center for International Development, April 2011, <https://siepr.stanford.edu/sites/default/files/publications/443wp.pdf>.

³⁶ "WTO | China - Member Information," WTO, <https://www.wto.org/english/thewtoe/countriess/chinae.htm>.

survival rate of manufacturing and mining facilities that led many rural communities to lose critical local employment opportunities.

In contrast to economic policies of the early 2000s, the Chinese government has in recent years begun to view the renminbi as a measure of its economic preeminence. This represents a significant change in the stratagem of the Chinese monetary system and has profound implications in regard to the global economy and the United States ability to bring a case before the World Trade Organization, since it is difficult and often counterintuitive for international institutions to punish nations for offenses that they no longer commit. In the past, China often used its currency as a tool to increase the capacity of factory production and to benefit the export industry. Currently, China is seeking to increase the strength of the renminbi to encourage investments in the currency.³⁷ The Chinese government considers the national economy to be robust enough to withstand an increased interest rate and a reduction in the flow of cheap money. In addition, the Chinese government has unloaded more than \$1 trillion from its stockpile of reserve currencies since 2014, in an effort to bolster the strength of the renminbi.³⁸ If successful, the Chinese government will have gained a greater ability to sway the economic decisions of nations and individuals alike. As a greater portion of investors flock toward the renminbi, the greater control the Chinese government will gain over the economic decisions these investors make.

To highlight the earnestness of China's intention to increase the value of the renminbi, the Chinese government has embarked upon massive capacity reduction programs. The capacity

³⁷ "China's Efforts to Boost the Yuan," Federal Reserve Bank of St. Louis, April 05, 2017, 2018, <https://www.stlouisfed.org/on-the-economy/2017/april/chinas-efforts-boost-yuan>.

³⁸ Qiao Yu, "Relocating China's Foreign Reserves," Brookings, November 21, 2013, <https://www.brookings.edu/research/relocating-chinas-foreign-reserves/>.

cuts are ambitious. By 2020 the government plans to slash current levels of steel production.³⁹

China's efforts to reduce production in the steel industry have caused a global run-up in steel prices. This run-up had short-term implications for American manufacturing since American steel producers and exporters were able to take advantage of higher steel prices on the international market. However, the higher prices were merely a temporary result of the diminished supply of global steel and did not lead to a lasting change in the market. Just as American manufacturing benefitted from the increase in steel prices so did Chinese heavy industries as Chinese producers saw marked growth in profits. Prevailing economic thought mandates that a cutback in capacity also result in a reduction of exports; however, per China's reduction program, many of the state-operated steel mills will undergo substantial renovations and modernization. In essence, Chinese capacity is not being eliminated it is being restructured.⁴⁰ Unlike the United States, China will likely emerge from a period of capacity reductions with more efficient industrial facilities able to dominate the upper tier of the global commodity market.

Therefore, in light of the American manufacturing industry's ongoing decline, it is reasonable for the United States government to begin investigating and implementing more radical economic solutions in an attempt to stem the deterioration of the manufacturing sector. The significance of the manufacturing sector to rural America necessitates these measures since the decline of manufacturing disproportionately affects the local economies and lives of rural residents. In this manner, bolstering American manufacturing cannot be equated to a doomed-to-

³⁹ Ruby Lian and Josephine Mason, "China Aims to Meet 2020 Target for Steel Capacity Cuts This Year," Reuters, February 07, 2018, <https://www.reuters.com/article/us-china-steel/china-aims-to-meet-2020-target-for-steel-capacity-cuts-this-year-warns-on-resumption-idUSKBN1FR10M>.

⁴⁰ Charles Newbery, "China Steel Capacity Replacements Continue in 2018 with More Electric Arc Furnaces," S&P Global Platts, April 12, 2018, <https://www.spglobal.com/platts/en/market-insights/latest-news/metals/041218-china-steel-capacity-replacements-continue-in-2018-with-more-electric-arc-furnaces>.

failure attempt to hold on to the past or obsolete sectors of the economy. Instead, the manufacturing sector must be maintained in order to prevent the development of further economic deterioration and inequality in rural regions that relied upon heavy industry and possess few other means to maintain their community's economic longevity.

Chapter 2

Rural Outmigration

Rural counties encompass 72 percent of America's total land area and are found spread across every geographic region and time zone in the United States.⁴¹ Nevertheless, rural areas are presented with economic challenges that are not uniformly distributed across those regions. Regional inequalities affect rural Americans differently, yet rural areas are almost always in a position of comparative disadvantage to urban areas. For instance, rural areas are more likely to rely on declining industries, such as manufacturing and mining. Additionally, rural America has been struck by a population decline, which presents a myriad of economic repercussions that create a snowball effect which is difficult to reverse. Moreover, the decline of prime-age employment participation rates has had a unique impact on rural industries. The causes of rural decline are multifaceted and present serious challenges to the broad American economy as well as to the healthcare and legal systems.

Emergent economic trends that have led to the decline of traditional blue-collar industries and the elusiveness of membership in the middle class. The outmigration of young workers heavily contributed to the current state of skilled labor shortages in rural areas. rural conditions. The deindustrialization of the American economy was to the detriment of rural workers and their families. Rural areas in the United States, with their low populations, are more likely than their

⁴¹ John Cromartie, "Rural Areas Show Overall Population Decline and Shifting Regional Patterns of Population Change," United States Department of Agriculture Economic Research Service, September 05, 2017, <https://www.ers.usda.gov/amber-waves/2017/september/rural-areas-show-overall-population-decline-and-shifting-regional-patterns-of-population-change/>.

urban counterparts to rely on one industry. Rural industries that had traditionally been labor intensive and driven by the availability of human capital have shifted toward automation, outsourcing, and a greater reliance upon foreign investment. These changes to typical industrial processes in the United States have resulted in massive productivity gains, which led to the need for fewer workers. For example, as of 2018, the average farm in the United States produced enough food to feed 165 people compared to the decade of the 1970s when the average farm fed 73 people. Despite the dramatic productivity gains, the percentage share of the labor force involved in the agricultural sector has decreased from 4.5 percent in the 1970s to less than 1.5 percent as of 2012.⁴² The inverse relationship between productivity gains and labor force participation is also evident in the manufacturing and mining industries. The jobs that remain in these industries are often more technologically sophisticated and require a greater degree of training and education as a prerequisite to employment.

Moreover, the sum total of available jobs in rural areas across the United States decreased, which resulted in the migration of rural youths into urban areas in search of job opportunities. Employment and economic opportunities are increasingly becoming concentrated in large metropolises. In the United States, the twenty largest cities account for over 50 percent of the entire nation's economic output.⁴³ This has created a cyclical effect in that, as the urban population increases, so too do the number of opportunities available in these areas which attract even greater migration. Conversely, as the population decreases in rural areas, so too do the number of economic opportunities in those communities. Therefore, a downward spiral is set

⁴² U.S. Bureau of Labor Statistics, Percent of Employment in Agriculture in the United States, FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/USAPEMANA>.

⁴³ Richard Dobbs et al., "Urban World: Mapping the Economic Power of Cities," McKinsey & Company, March 2011, <https://www.mckinsey.com/featured-insights/urbanization/urban-world-mapping-the-economic-power-of-cities>.

into motion. Rural economies are also hindered by the unattractiveness of the relatively low paying and manual labor jobs associated with rural regions. Those employment characteristics complicate the migration of workers out of rural communities, as many of the most academically successful and talented graduates from rural areas choose to move into cities for the excess opportunities and generally higher salary scales that those areas offer. This migration pattern results in a brain drain, which further disadvantages the future prospects of rural economies. In just two decades rural counties across the United States lost more than 10 percent of their total population.⁴⁴ The outmigration of rural youths has effectively led to a condition where the population gains from natural increase do not match the population losses from net migration out of rural areas.

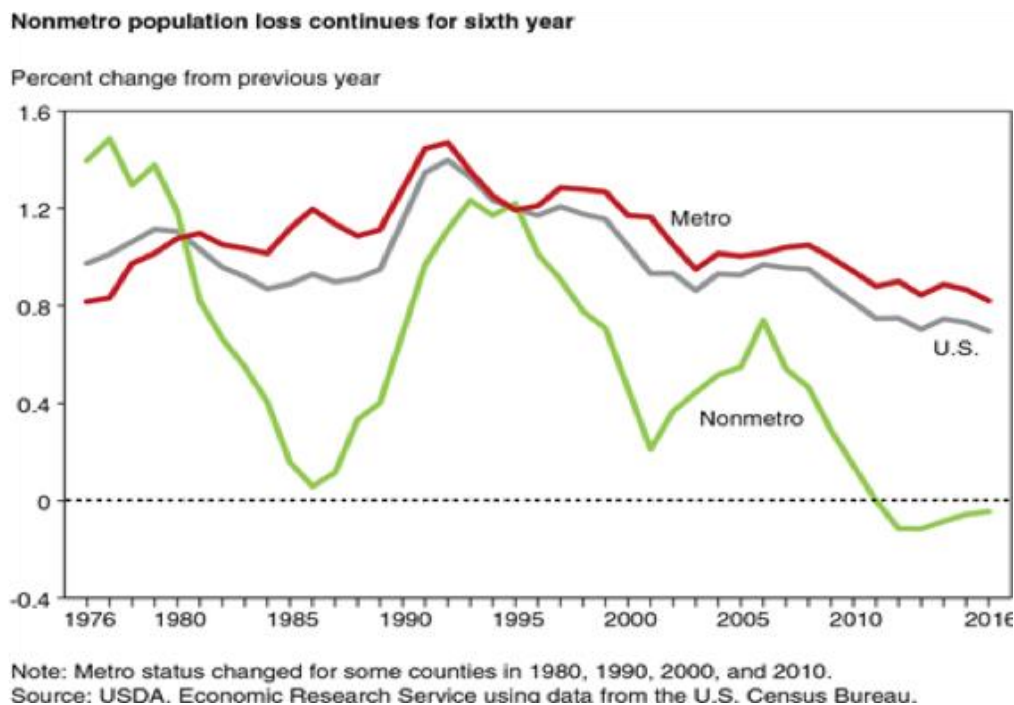


Figure 1

⁴⁴ Patrick J. Carr and Maria J. Kefalas, "The Rural Brain Drain," *The Chronicle of Higher Education*, September 21, 2009, <https://www.chronicle.com/article/The-Rural-Brain-Drain/48425>.

The above graph highlights the extent of rural population loss in comparison to urban areas and the total American population.⁴⁵ Between 2010 and 2016, 1,351 out of 1,976 rural counties underwent a decline in their population.⁴⁶ The combined population loss of those counties numbered just short of 790,000 people.⁴⁷ Additionally, between 2010 and 2014, 350,000 migrated out of rural counties while only 250,000 were born in rural counties. In contrast, between 2010 and 2014, more than 4 million people settled in urban counties and 6 million were born in urban counties.⁴⁸ The only rural counties that saw population growth were economically based around recreation services and the oil and natural gas industries.⁴⁹ These population gains are unlikely to reverse migration trends, since they are geographically constrained to counties that are aesthetically pleasing with landscapes conducive to leisure activities and those that are resource plentiful. Furthermore, the rural oil and natural gas industries are often predicated upon extracting a finite amount of resources and then move their operations to a different location. Nearly all of the population gains associated with oil and natural gas industries are from workers temporarily moving into the area. These workers are likely to exit the area when their employers continue operations at the next site.

The length of time that natural gas corporations will stay in a given region varies depending upon the amount of natural gas that can be extracted. For instance, ExxonMobil is the largest oil and natural gas company in the United States and the fourth largest oil and natural gas

⁴⁵ John Cromartie, "Rural Areas Show Overall Population Decline

⁴⁶ "New Census Data Show Differences Between Urban and Rural Populations," Census Bureau QuickFacts, December 30, 2016, <https://www.census.gov/newsroom/press-releases/2016/cb16-210.html>.

⁴⁷ "Rural America At a Glance 2017 Edition".

⁴⁸ Tim Henderson, "States Try to Counter Rural Flight," The Pew Charitable Trusts, August 20, 2015, <https://www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2015/08/20/states-try-to-counter-rural-flight>.

⁴⁹ "Rural America At a Glance 2017 Edition".

company in the world. In 2017, ExxonMobil earned more than 237.1 billion in revenue.⁵⁰ After merging with XTO Energy in 2010, ExxonMobil became the largest private holder of American natural gas reserves. The Piceance Basin in Rio Blanco County in western Colorado contains ExxonMobil's largest reserve of natural gas.⁵¹ The Piceance Basin holds trillions of cubic feet of natural gas and took ExxonMobil engineers more than a decade to develop a means to extract the natural gas from deep below the surface. More than 300,000 acres of the Piceance Basin are owned by ExxonMobil and resources contained in that area are estimated to provide enough natural gas to power 50 million homes for almost a decade.⁵² This immense amount of natural gas cannot be extracted all at once and may take years to remove from the Piceance Basin due to circumstances related to logistics and ExxonMobil's allocation strategies.

In the meantime, ExxonMobil stated that the company is "committed to building long-term partnerships in Rio Blanco County and northwest Colorado".⁵³ It is significant to note that the Piceance Basin is the largest natural gas reserve possessed by the largest domestic natural gas company. Despite the incredible scale of the Piceance Basin, operations in this region have been slow moving due to the difficulty of extracting the natural gas and ExxonMobil's internal allocation programs. Nevertheless, ExxonMobil is making investments in the surrounding regions by assisting with the upgrade of local medical helicopters and ambulances, sponsoring a week-long teaching program focusing upon improving classroom STEM strategies, and sponsoring the Meeker Classic Sheepdog Championship Trials.⁵⁴ Despite the improvements

⁵⁰ "XOM Annual Income Statement - Exxon Mobil Corp. Annual Financials," MarketWatch, 2018, <https://www.marketwatch.com/investing/stock/xom/financials>.

⁵¹ "Learn about XTO's Operating Areas, in the US and Internationally," ExxonMobil, 2018, <https://www.xtoenergy.com/en-us/operations/operating-areas>.

⁵² "Natural Gas Operations | Piceance," ExxonMobil, 2018, <https://corporate.exxonmobil.com/en/energy/natural-gas/operations/piceance?parentId=990ae938-a097-4445-a98a-3e7ce18286c7>.

⁵³ "Natural Gas Operations | Piceance"

⁵⁴ "Natural Gas Operations | Piceance"

made to and integration with the local region, ExxonMobil will not remain in the Piceance Basin after the company has extracted the total amount of natural gas that it deems profitable.

Most of the improvements to the local economy that ExxonMobil would have made during its tenure in the Piceance Basin will likely disappear after the company concludes its operations in the region. Due to the scale of its operations in the Piceance Basin, ExxonMobil will likely make far greater investments in this region than it would in regions that possessed average or less than average amounts of natural gas reserves. Moreover, smaller and more independent natural gas extraction companies scattered across the United States possess fewer means to contribute to local economies outside of a temporary economic stimulus that coincides with an increase in the number of outside workers in the region. However, many of the workers that temporarily move to rural areas to work in the natural gas industries send their money back to their families who reside in other regions entirely. Those natural gas workers that keep the majority of their salary are unlikely to purchase expensive items like an automobile or home from the rural community where they work since they are conscious of the fact that their presence in their workplace's community is not permanent.

Rural counties in scenic areas that possess natural amenities like mountain ranges and lakes that attract those from urban areas wishing to vacation or live a quieter life away from the stressors of metropolitan areas. While rural counties driven by recreation-based economies experience an increase in population and employment opportunities in the service and retail sectors, there is an upper limit to this type of population and economic growth. Most of the individuals who decide to migrate to scenic rural counties are older Americans or Americans who own more than one home. While older migrants contribute to population gains, it is unlikely that they will raise children in these areas or that their adult children would move to these areas

with their aging parents. The below illustration showcases the extent that rural counties are characterized by older-age populations and how these rural counties often are classified as either scenic or chronically experiencing population loss.⁵⁵

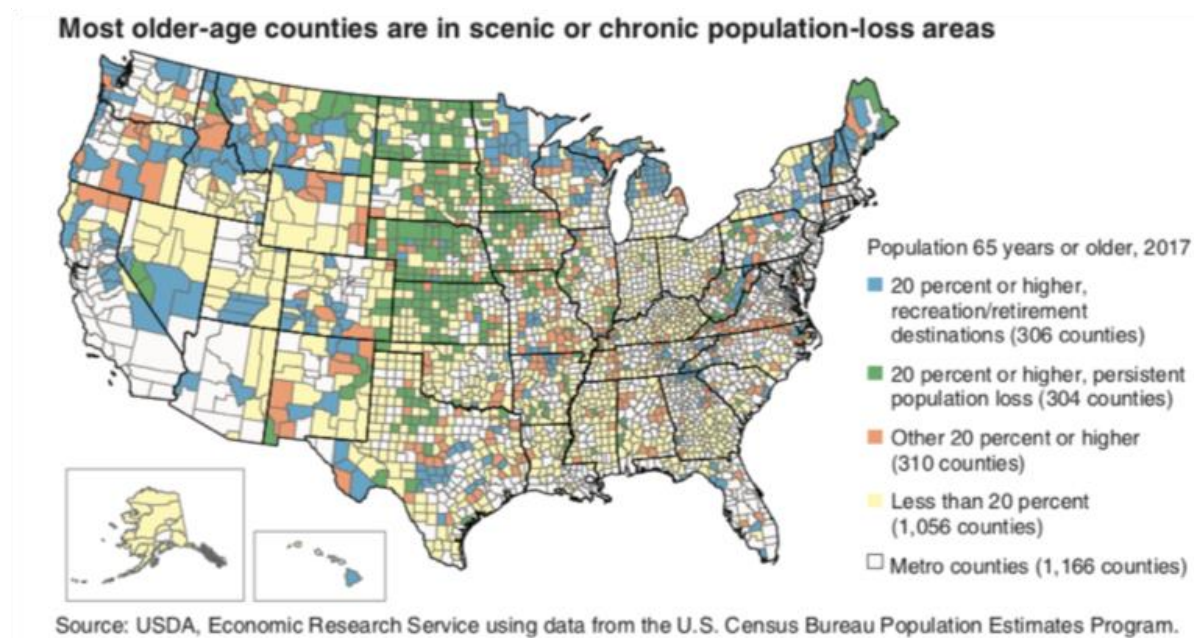


Figure 2

Moreover, those individuals who own a second home in scenic rural counties are unlikely to use that home as their primary household.⁵⁶ These individuals generally choose to raise their families and establish stronger communal ties elsewhere. Additionally, these individuals spend most of their money at their primary household and within their primary communities. The money these individuals spend in rural areas typically supports seasonal recreation industries like hunting lodges, fishing clubs, or winter sporting resorts. Thus, these individuals, although usually wealthy, do not support permanent industries that would be a source of longstanding job creation or high-wage employment.

⁵⁵ "Rural America At a Glance 2018 Edition", United States Department of Agriculture Economic Research Service, November 2018, <https://www.ers.usda.gov/webdocs/publications/90556/eib-200.pdf>.

⁵⁶ "Rural America At a Glance 2017 Edition"

The rural population is also declining due to urbanization and the reclassification of formerly rural counties. Urban communities grew rapidly throughout the 20th century. In 1900 the total American population living in urban areas was roughly equivalent to 40 percent.⁵⁷ As of 2012, the U.S. Census Bureau calculated that 80 percent of the total American population resides in urban communities.⁵⁸ The transformation and reclassification of those populations from rural to urban has resulted in a remaining share of slower growing and economically limited rural counties. This has caused today's rural counties to have lower population growth potential and a diminished labor force, which makes them less able to spur new economic activity due to reduced potential demand in the local market.

In essence, as the most prosperous rural counties became classified as urban or nonmetro, the remaining rural communities represented an increasingly less well-off portion of the national total and become statistically poorer and less livable. Furthermore, natural population rates have historically been declining throughout the United States, as women generally have fewer children today than in the past. This birth rate trend remains broadly true in both urban and rural communities. It's important to note that net outmigration rates, which characterizes many rural counties, tend to respond to economic conditions and primarily affect young people.⁵⁹ In short, an economist would expect to find outmigration patterns where economic conditions are poor and she would also expect young people who are most likely to start families to exit rural areas in the greater numbers than other groups.

⁵⁷ "Population: 1790 to 1990," Census.gov, <https://www.census.gov/population/censusdata/table-4.pdf>.

⁵⁸ Nate Berg, "U.S. Urban Population Is Up but What Does 'Urban' Really Mean?" CityLab, March 26, 2012, <https://www.citylab.com/equity/2012/03/us-urban-population-what-does-urban-really-mean/1589/>.

⁵⁹ John Cromartie, "Rural Areas Show Overall Population"

In the 20th century, population declines in rural counties were most acute in those areas economically reliant upon an expansive agricultural sector. At the turn of the 21st century, rural counties most affected by population loss were largely those counties reliant upon manufacturing.⁶⁰

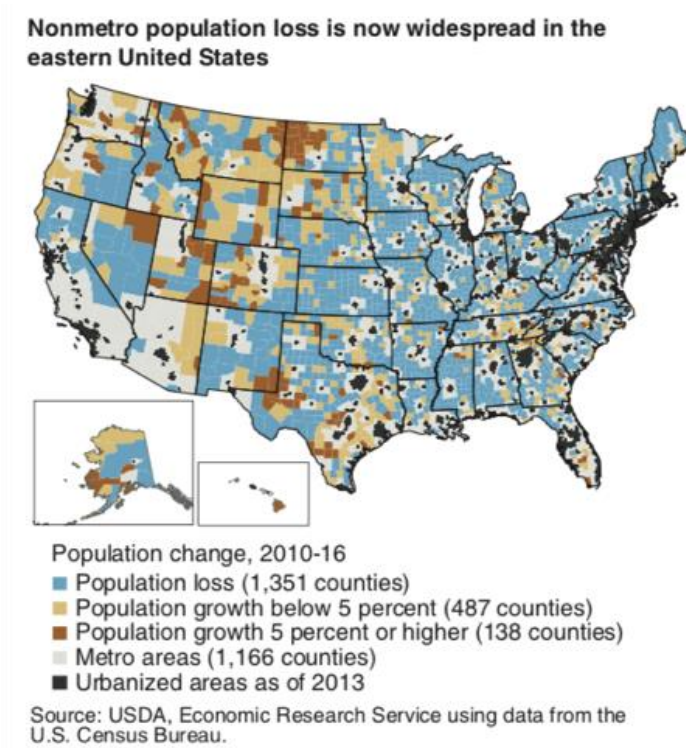


Figure 3

The above illustration displays rural population loss by county and draws attention to the declines in the formerly economically durable rural regions of the Northeastern United States.⁶¹ The Northeastern rural economies have been particularly affected by declines in the manufacturing and mining industries. The Northeastern rural economies fall in line with national trends, as over the past several decades, the American economy has broadly shifted away from

⁶⁰ "Rural America At a Glance 2017 Edition"

⁶¹ "Rural America At a Glance 2017 Edition"

the production of goods, and toward service-oriented industries. Although manufacturing still constitutes a significant share of the rural economy, just 10 percent of rural workers are employed in the manufacturing industry today. In the year 2000, 17 percent of rural Americans were employed in manufacturing.⁶² Therefore from 2000 to 2018, the number of rural workers employed in manufacturing decreased by over 40 percent.⁶³ At present, this trend shows no indication of long-term reversal, as lack of manufacturing employment opportunities continues to hamper the economic potentials of rural communities.

Not all rural sectors are in decline, as other traditional rural industries such as agriculture and mining grew by 25 percent from 2001 to 2015. This growth was largely attributed to the expansion of oil, gas, and mining industries. However, over the course of those fourteen years mining and agriculture only added 130,000 jobs. That increase was largely offset by productivity gains, achieved through technology, which contributed to mining and agricultural industries providing less than 5 percent of the wage and salary jobs in rural America. In other words, the agricultural and mining industries expanded at a greater rate than the employment opportunities associated with those fields. To highlight the relative insignificance of agricultural and mining employment gains, from 2001 to 2015, the rural manufacturing sector lost over 700,000 jobs.⁶⁴ This figure stands in stark contrast to the modest employment gains associated with the traditional blue-collar mining and agricultural industries. Instead, the employment gains in those rural industries that expanded showcase the relatively minor extent of their role in the broader rural economy.

⁶² Reid Wilson, "Rural Poverty Skyrockets as Jobs Move Away", The Hill, December 05, 2017, <https://thehill.com/homenews/state-watch/363415-rural-poverty-skyrockets-as-jobs-move-away>.

⁶³ "Rural America At a Glance 2017 Edition"

⁶⁴ "Rural America At a Glance 2017 Edition"

Technological advances have not been to the detriment of all rural job opportunities. For example, the expansion of fracking has coincided with a rise in employment opportunities in some of the most economically disadvantaged rural communities. However, the long-term environmental impacts on these counties have yet to be fully understood. Additionally, the expansion of fracking has done little to address the problem of rural reliance upon a single industry. While fracking has undoubtedly spurred a renewal of economic activity in some rural areas, once those fracking companies extract the resources from that area, it is likely the company will move on, leaving the community in a poor economic condition after the loss of a primary employer.

Today, over 70 percent of rural employment can be found in manufacturing and three service industries. Those industries are education, health care, logistical support, and hospitality. Those service industries all added rural jobs since 2000.⁶⁵ However, the rate of those industries' growth is well below the national average. If those sectors had experienced average growth rates, an additional 632,000 rural jobs would have been added in education and health, another 68,000 jobs in logistical support, and 235,000 jobs in hospitality services.⁶⁶ There are many reasons why those industries did not grow at the rate of the national average. A major contributor to slow growth was certainly a result of an absence of local demand stemming from declining rural population.

It could be argued that migration out of rural areas is simply a result of living in a free market society that sends signals to workers who are then able to better position themselves to take advantage of economic opportunities. According to this viewpoint, migration out of rural

⁶⁵ "Rural America At a Glance 2017 Edition"

⁶⁶ "Rural America At a Glance 2017 Edition"

communities was a manifestation of workers exercising their right to mobility in a free society.

The migration was not economically harmful to the nation as a whole, as the American economy has been growing since the lessening of the effects stemming from the Great Recession.⁶⁷ The rural migration to urban areas certainly damaged the quality of life and opportunities in rural areas. A smaller population means that local governments must rely upon an increasingly smaller tax base to facilitate basic services. Therefore, in order to navigate budgetary constraints, those local governments must cut spending and as a result further diminish the quality of their community's basic services and their residential attractiveness.

This creates a snowball effect whereby cuts to infrastructural and educational investments contribute to migration away from these areas and toward cities, creating a reticence among employers to locate in rural areas. Moreover, government spending cuts also make those areas unattractive places to return to raise a family or start a career. For instance, public schools are one of the many programs that are affected by spending cuts. The quality of public schools is a concern that many families face when deciding to move to rural areas.⁶⁸ Developing a well-funded public-school system is often complicated by state laws designed to protect taxpayers. For instance, the Pennsylvania State Legislator passed the Taxpayer Relief Act of 2006 that sets annual limits on the amount school districts are able to increase property taxes.⁶⁹ Per the 2018-2019 school year, Pennsylvania school districts will be able to raise taxes by 2.4 percent.

⁶⁷ Patricia Cohen, "U.S. Economy Grew by 2.3% in First Quarter, Easing Slightly," The New York Times, April 27, 2018, <https://www.nytimes.com/2018/04/27/business/economy/gdp-economy.html>.

⁶⁸ Jeremy Ayers, "Make Rural Schools a Priority," Center for American Progress, August 04, 2011, <https://www.americanprogress.org/issues/education-k-12/reports/2011/08/04/10216/make-rural-schools-a-priority/>.

⁶⁹ "Property Tax Relief," PA. Gov., 2018, [https://www.education.pa.gov/Teachers - Administrators/Property Tax Relief/Pages/default.aspx](https://www.education.pa.gov/Teachers-Administrators/Property-Tax-Relief/Pages/default.aspx).

However, some school districts in the Pittsburgh region will be permitted to increase tax rates as high as 3.9 percent.⁷⁰

Per the terms of the Taxpayer Relief Act of 2006, the state could allow for referendum exceptions to the tax limit only if those exceptions are for “school construction debt, special education spending, and retirement contributions.”⁷¹ The tax limits placed upon Pennsylvania school districts are significant in that underfunded school districts will find it increasingly difficult to generate funds if the district does not proactively raise tax rates. For instance, if a rural school district in Pennsylvania decided that it had to raise the property tax rate by 3 percent in order to maintain the quality of its educational operations it would take two years to reach the 3 percent figure. However, if the school district had not been proactive and needed to raise tax rates by 3 percent within the year, the district would be unable to generate adequate revenue and lose their ability to fund all of the school’s operations. In short, a smaller population results in less tax revenue, which necessitates budget restrictions, which then diminishes the quality of educational services offered and contributes to migration away from those regions. In this sense, the problem appears to be cyclical as one effect, in turn, contributes to and worsens the other.

As young people move out of rural areas, those who remain witness their property values diminish.⁷² Lower property values is a trend that concerns many given that some Americans rely upon their home equity value as an extension of their savings account. Therefore, those still living in rural areas tend to be older and may be trapped in homes that they cannot afford to sell due to the low-value rural housing market. Additionally, the rural healthcare industry is less

⁷⁰ "Pennsylvania Department of Education Sets Property Tax Limits," TribLive, November 29, 2017, <https://triblive.com/news/education/taxes/13011434-74/pennsylvania-department-of-education-set-limits-school-districts-can-raise-2018-19-property>.

⁷¹ "Pennsylvania Department of Education Sets Property Tax Limits," TribLive

⁷² Gillian B. White, "Rural America's Silent Housing Crisis," The Atlantic, January 28, 2015, <https://www.theatlantic.com/business/archive/2015/01/rural-americas-silent-housing-crisis/384885/>.

equipped to handle an aging population, since rural hospitals are scarcer and less likely to be adequately staffed or supplied in comparison to their urban complements.⁷³ The aging rural population is highly vulnerable to alterations in government programs like social security and pension plans due to the costs associated with receiving sufficient senior care in rural areas.

Those seniors in rural areas that must rely upon their children for financial support are also disadvantaged in that their children may live in urban areas away from their hometowns. Due to infrequent visitation, stemming from geographic distance, it is less likely that the children of rural seniors will fully understand the state of their parents' condition. This combined with irregular visits to primary doctors and clinics means that rural seniors are less likely to receive the care they need in a timely manner. Regular medical screenings and observations are important to detect early instances of cognitive decline in seniors. If cognitive conditions are discovered early, the lives of individuals suffering from these disorders stand a much better chance of being improved. Whereas, once that individual's condition reaches moderate to advanced stages of development treatment options become much more limited and less effective.⁷⁴

Due to rural population loss, and the detrimental factors associated with outmigration, communities and states alike must attempt to incentivize migration back to these rural regions. It's important to acknowledge the readily apparent fact that those who migrated out of rural areas grew up in rural areas. In essence, those migrants are connected to rural regions through family ties, childhood memories, and nostalgic sentiments associated with a hometown. Most returnees

⁷³ Kate Rogers, "Where the Jobs Are: Rural Hospitals Desperately Need More Nurses," CNBC, May 05, 2017, <https://www.cnbc.com/2017/05/05/where-the-jobs-are-rural-hospitals-desperately-need-more-nurses.html>.

⁷⁴ "The Importance of Early Screening for Alzheimer's, Dementia, and Cognitive Decline | APEX | Brain Centers | Asheville NC," APEX | Brain Centers | Asheville NC, 2017, <https://apexbraincenters.com/cognitive-decline/>.

to rural areas cite their desire to raise children in a small-town community and to be closer to extended family as a primary reason for their migration back to rural counties.⁷⁵ Those returnees with children also frequently mention the quality of the area's public schools as a major factor to be overcome in their decision to return.

The data collected from returnees should act as a guideline to assist where local institutions and governments should allocate their funds to attract new residents. For instance, well-funded public education and the preservation of rustic environments should be considered paramount to the interests of rural communities. Ensuring that those two factors are well maintained will increase the probability that rural counties attract young people and returnees to settle down, start careers and raise families. The largest group migrating into rural counties are adults aged between thirty and thirty-four and children aged between five and nine. Attracting even larger numbers from this group could greatly improve the economic conditions of rural communities and help break the negative cycles associated with chronic outmigration.

Nevertheless, it remains unclear as to whether those returnees could provide an adequate amount of economic activity required to curtail rising rates of regional rural poverty. More radical policies and solutions may be required to incentivize migration back to rural areas since the number of rural Americans living in poverty increased dramatically during the Great Recession.⁷⁶ The nation as a whole experienced a greater occurrence of economic degradation and wage stagnation throughout the Great Recession. Those economic trends have continued in rural regions across the United States. Moreover, rural communities had been experiencing an

⁷⁵ John Cromartie, Christiane Von Reichert, and Ryan Arthun, "Why Some Return Home to Rural America and Why It Matters," United States Department of Agriculture Economic Research Service, July 06, 2015, <https://www.ers.usda.gov/amber-waves/2015/july/why-some-return-home-to-rural-america-and-why-it-matters/>.

⁷⁶ "Rural America Still Seeking Recovery," National Conference of State Legislators, February 01, 2018, <http://www.ncsl.org/bookstore/state-legislatures-magazine/statestats-rural-america-still-seeking-recovery.aspx>.

economic decline that began before and was exacerbated by the Great Recession. In the year 2000, 1 in 5 rural counties had a poverty rate higher than 20 percent.⁷⁷ As of 2017, nearly 1 in 3 rural counties had a poverty rate higher than 20 percent.⁷⁸ In comparison, urban counties characterized by pervasive poverty rose from just under 7 percent to under 16 percent.⁷⁹

While the rise in urban poverty rates was significant, rural regions started from a larger percentage of poverty and suffered a comparatively higher growth of poverty rates after the Great Recession. Even though rural areas entered the recession from a comparatively weak economic position, those regions have been unable to return rural employment and job growth to its modest pre-recession levels. As of 2018, rural median income remains below and poverty remains above the rates found in urban areas.⁸⁰ Between 2010 and 2015, annual rural employment growth averaged 0.8 percent compared to 1.9 percent annual growth in urban areas.⁸¹ In 2015 there were 400,000 fewer jobs available in rural counties compared to when the Great Recession began in 2007. Whereas, urban areas have compensated for job losses incurred during the Great Recession by amassing a net gain of 3.6 million jobs since 2007.⁸² In short, since the Great Recession, rural areas have lost jobs while urban areas have actually experienced gains in employment.

The primary causes of these emergent economic conditions have been the decline of traditional rural industries and population. The expansion of the global commodity market was to the detriment of American manufacturing, which was disproportionately representative of the

⁷⁷ Reid Wilson, "Rural Poverty Skyrockets as Jobs Move Away"

⁷⁸ "Rural America At a Glance 2017 Edition"

⁷⁹ Reid Wilson, "Rural Poverty Skyrockets as Jobs Move Away"

⁸⁰ Alemayehu Bishaw and Kirby G. Posey, "A Comparison of Rural and Urban America: Household Income and Poverty," Census Bureau QuickFacts, December 08, 2016, https://www.census.gov/newsroom/blogs/random-samplings/2016/12/a_comparison_of_rura.html.

⁸¹ "Rural America At a Glance 2017 Edition"

⁸² "Rural America At a Glance 2017 Edition"

rural economy. Between 2011 and 2015, 71 rural counties that had not been classified as high-poverty counties at any point between 1980 and 2011 became high poverty counties.⁸³ Those 71 counties are significant in that they are generally not located near historically high poverty counties. Instead, the newly high poverty counties are located in regions that were most affected by losses in the manufacturing sector after the Great Recession like the Northwestern, Northeastern, and Southeastern United States.

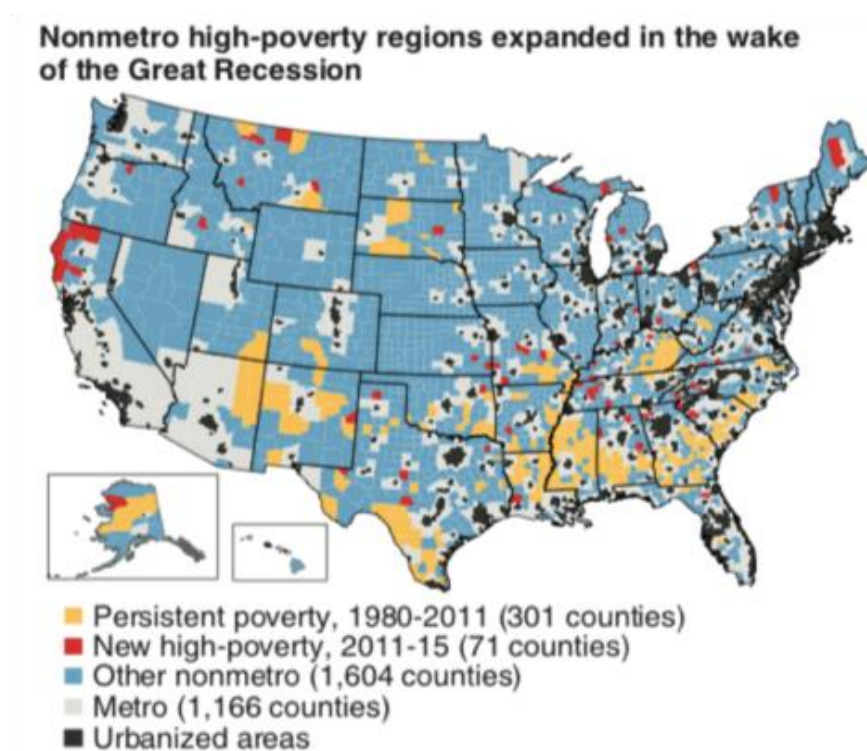


Figure 4

The above illustration highlights the expansion and locations of the newly high poverty regions in rural areas across the United States.⁸⁴ Rural counties are particularly prone to major economic declines since those areas are more likely than their urban counterparts to rely upon a

⁸³ "Rural America At a Glance 2017 Edition"

⁸⁴ "Rural America At a Glance 2017 Edition"

single employer to act as the communities' economic backbone. In this sense, the increase in total high poverty rural counties is indicative of more secular declines throughout rural economies. Despite increases in the amount of newly high-poverty rural counties, it is also imperative to understand the extent that rural poverty has historically been entrenched in specific regions and counties.

The USDA Economic Research Service defines persistent-poverty counties as those counties that experience 20 percent or higher poverty rates for 30 years.⁸⁵ Almost 85 percent of the over 300 rural counties that are classified as persistently poor are located in the Southeastern United States.⁸⁶ Although, persistent poverty has also historically characterized rural counties in the Southwest and Northern Great Plains. Due to the length of time required to definitionally describe a county as experiencing persistent-poverty, the effects of the Great Recession have not yet been reflected in persistent-poverty measurements. The lack of economic opportunities in rural America will almost certainly create new generations of persistent-poverty counties. In 1980, 70 percent of rural Americans living in poverty were working low-wage largely subsistence jobs. However, as of 2017 less than half of the rural population living in poverty are working.⁸⁷ This has led to physiological and societal complications that surely contribute to rural communities' lower life expectancy, higher rates of reported chronic pain, and perceptions of occupying a forgotten place within the national community.

⁸⁵ "Description and Maps," USDA ERS - Food Environment Atlas, May 31, 2017, <https://www.ers.usda.gov/data-products/county-typology-codes/descriptions-and-maps/#ppov>.

⁸⁶ "Rural America At a Glance 2017 Edition"

⁸⁷ Reid Wilson, "Rural Poverty Skyrockets as Jobs Move Away"

Chapter 3

Prime-Age Decline and Despair

The bulk of declining rural population trends stems from outmigration patterns. Nonetheless, population declines have also resulted from increased mortality rates among working-age adults. The United States Department of Agriculture estimated that between 1999-2001 and 2013-2015, rural mortality rates increased more than 20 percent for 25-to-29-year-olds. The mortality rate for this group jumped from 135 to 165 deaths per 100,000 people.⁸⁸ Similar increases in rural mortality rates also appeared for those rural Americans aged between 20-to-24 and 30-to-54-years old. In comparison, urban mortality rates increased, during this same period, for those aged between 20-to-29-years old.⁸⁹ Despite these statistics, the overall rural mortality rates are down from an annual average rate of 815 deaths per 100,000 people in 1999-2001 to 785 deaths per 100,000 people in 2013-2015 for all age groups combined.⁹⁰ This figure is significant because it indicates that particular groups within rural communities are more affected by increased mortalities rates and more exposed to the risks that cause a lethal increase.

Prime-age workers are defined as Americans between the ages of 25-to-54. In the mid-1980s, nearly 1 in every 16 prime-aged men were not participating in the labor force and were not actively seeking employment. As of 2016, that figure had increased to nearly 1 in every 8 prime-aged men.⁹¹ Declines in the number of prime-aged men participating in the labor market

⁸⁸ "Rural America At a Glance 2017 Edition"

⁸⁹ Rural America At a Glance 2017 Edition"

⁹⁰ Rural America At a Glance 2017 Edition"

⁹¹ "Why Are Prime-Age Workers Disappearing from the Job Market?" in *Morning Edition*, transcript, NPR, June 10, 2016.

have been a major contributor to the overall decline of total prime-aged labor participation. The graph below indicates the decline of the prime-age male labor force participation rate.⁹²



Figure 5

As the graph shows, declines in the share of prime-aged men in the labor force is not a new phenomenon as this group has been steadily declining since its peak in 1954. More than 98 percent of prime-aged men participated in the labor force nationwide in 1954. As of 2014, that overall nationwide figure is closer to 88 percent.

While the total number and percentage of prime-aged employment nearly always decreased more rapidly during recessions, the share of prime-aged employment rates have, throughout the past five decades, not recovered to their pre-recession levels. This effect is likely the result of permanent prime-aged exits from the labor force.⁹³ The prime-aged population is

⁹² Elena Holodny, "High School Graduates Are Way Worse Off Today Than 40 Years Ago," Business Insider, June 22, 2016, <https://www.businessinsider.com/ratio-of-high-school-graduate-wages-to-college-graduate-wages-2016-6>.

⁹³ Lauren Bauer and Jay Shambaugh, "Workers with Low Levels of Education Still Haven't Recovered from the Great Recession," Brookings, September 06, 2018, <https://www.brookings.edu/blog/up-front/2018/09/06/workers-with-low-levels-of-education-still-havent-recovered-from-the-great-recession/>.

critical to any economic system, because this population generally represents the largest share of the labor force, since its members are generally not old enough to retire, yet too old to still be involved in education or training. Furthermore, the prime-aged labor force should usually constitute the healthiest and most productive workers within a market. Thus, negative trends associated with the prime-aged labor force are particularly alarming given their significance to the rural and broader national and regional economies.

While many other industrialized Western countries have experienced a similar trend of declining prime-aged labor force participation rates, the United States continues to possess much lower rates of prime-aged labor participation than those other countries.⁹⁴ For instance, since the 1990s the United States has experienced the second greatest decrease in prime-age male labor participation rates amongst the 36 nations that are members of the Organization for Economic Co-operation and Development.⁹⁵ There are many potential explanations to account for this decline. For instance, some economists argue that wages for low skilled workers in the United States are often so low that it became more economically sensible for unskilled workers to avoid the stresses and expenses associated with holding a job and instead rely upon government programs. However, in 2014 nearly 36 percent of prime-aged men not in the labor force lived in poverty. They were primarily located in rural regions across the Northeastern United States. Additionally, less than 25 percent of prime-aged men who are out of the labor force are married to a spouse who participates in the workforce.⁹⁶ Interestingly, this figure has declined rather than increased over the past 50 years despite extensive gains during that time period in the number of

⁹⁴ Sarah Chaney, "Why U.S. Prime-Age Workforce Participation Is Lagging Behind Other Nations," *The Wall Street Journal*, June 06, 2018, <https://www.wsj.com/articles/why-u-s-prime-age-workforce-participation-is-lagging-behind-other-nations-1528291800>.

⁹⁵ "The Long-Term Decline in Prime-Age Male Labor Force Participation," *ObamaWhiteHouse.archives*, June 2016, https://obamawhitehouse.archives.gov/sites/default/files/page/files/20160620_cea_primeage_male_lfp.pdf.

⁹⁶ "The Long-Term Decline in Prime-Age Male Labor Force Participation,"

women who entered the labor market. These statistics seemingly indicate that those prime-aged individuals who are not in the labor market are absent for reasons other than their own choosing. In short, it is unlikely that prime-aged men are choosing not to work due to the labor conditions associated with available jobs since those out of the labor force are not necessarily financially secure.

In contrast to worker choice, it is likely that broader macroeconomic trends in the American economy reduced the demand for unskilled labor, which would account for at least a portion of the decline in prime-aged male labor force participation rates. Less educated workers experienced a particularly steep decrease in their share of the labor force and also suffered from decreased wages.⁹⁷ Those wage statistics appear even worse when compared to more educated or skilled positions. The graph below illustrates the ratio of high school graduate wages compared to college graduate wages.⁹⁸

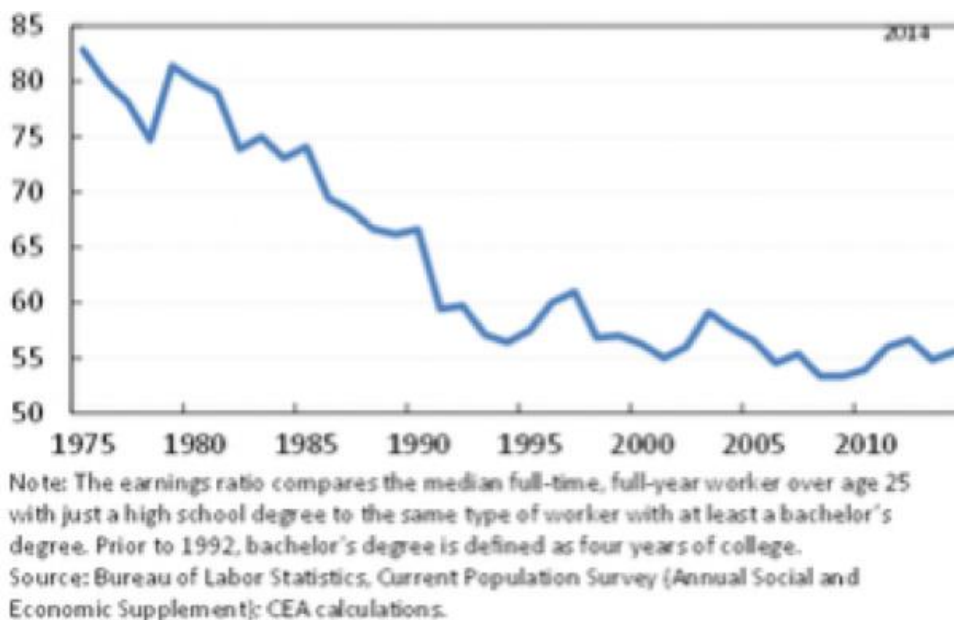


Figure 6

⁹⁷ Vernon Brundage, Jr., "Profile of The Labor Force by Educational Attainment," Bureau of Labor Statistics, August 2017, <https://www.bls.gov/spotlight/2017/educational-attainment-of-the-labor-force/pdf/educational-attainment-of-the-labor-force.pdf>.

⁹⁸ Elena Holodny, "High School Graduates Are

For instance, between 1975 and 2014, the relative wages earned by those with only a high school degree fell from over 80 percent of the wages earned by those with at least a college degree to less than 60 percent. The decreases in high school graduate wages are consistent with a general decline in demand for unskilled labor.

Labor force participation rates have fallen for prime-age men with and without college degrees. However, these declines were not equally distributed across economic classes. Additionally, as the graph below suggests, those prime-aged men with a high school education or less are actually pulling the national average down below the averages associated with those prime-aged men with some form of advanced training or degrees.⁹⁹

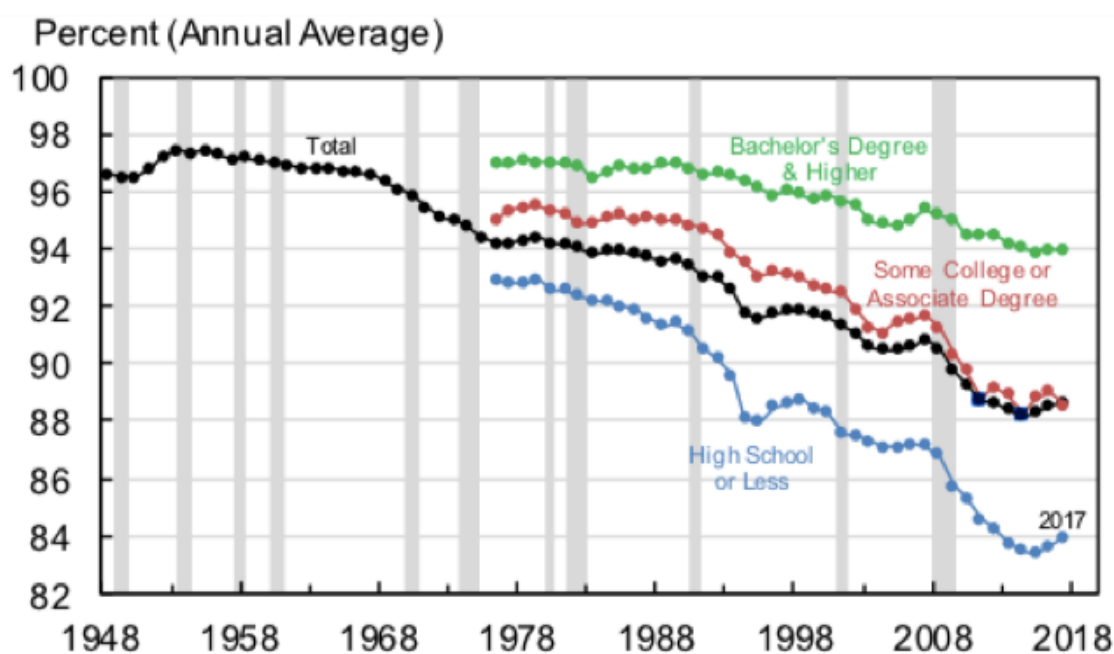


Figure 7

As the graph indicates, prime-aged men with a college degree had a near 98 percent labor participation rate in 1978, while prime-aged men with high school degrees had a near 93 percent

⁹⁹ Alan B. Krueger, "Where Have All the Workers Gone? An Inquiry into the Decline of the U.S. Labor Force Participation Rate," Brookings Papers on Economic Activity, September 2017, https://www.brookings.edu/wp-content/uploads/2017/09/1_krueger.pdf.

labor participation rate that same year. As of 2018, prime-aged male college graduates had a 94 percent labor participation rate, while high school graduates had an 84 percent labor participation rate. Furthermore, lower rates of labor force participation disproportionately affect minorities and rural workers. Prime-aged black men experienced the greatest decline in labor force participation and rural areas are more likely than their urban counterparts to possess a greater representation of unskilled workers and lack of economic diversity.¹⁰⁰

One would expect that owing to the number of prime-aged Americans who dropped out of the labor force that there would be vast expansions of programs such as Social Security Disability Insurance to supplement their incomes. Nonetheless, data suggests that government assistance programs cannot be blamed for enabling the decline in prime-aged labor participation rates. For instance, those receiving Social Security Disability Insurance only increased by 2 percent since 1967. During the course of this time period, the prime-aged male labor participation rate declined by more than 7.5 percent.¹⁰¹ Additionally, it's important to note that many government assistance programs are more easily accessible to families as opposed to single individuals. For instance, single prime-aged men would have difficulty accessing programs like Temporary Assistance for Needy Families and the Supplemental Nutrition Assistance Program. These are all factors that feed outmigration to urban areas where employment opportunities for unskilled workers are somewhat more favorable.

The decline of the prime-aged labor force in rural areas presents a myriad of serious economic challenges for economically struggling rural communities. Economies grow more slowly in regions that possess fewer potential prime-aged employees and lower overall

¹⁰⁰ "The Long-Term Decline in Prime-Age Male Labor Force Participation,"

¹⁰¹ "The Long-Term Decline in Prime-Age Male Labor Force Participation,"

population levels because enterprises are reluctant to locate there. If they do so, the odds are much less favorable for those businesses will succeed. Moreover, research strongly supports the conclusion that those who aren't involved in the labor force tend to experience greater instances of mental illness, in particular depression, and feel more detached from mainstream society.¹⁰² Additionally, chronic joblessness is associated with lower levels of happiness and diminished future economic potential, which may have profound impacts on an individual's community and family. Furthermore, any decrease in the overall labor force necessitates a reduction in the amount of available taxes that the nation, state, and local government can collect. This makes it more difficult for the government to support those who are too young, too old, or otherwise physically unable to work. This leaves such individuals in rural communities at greater risk for poverty.

The decrease in the demand for unskilled labor in the United States certainly played a role in taking prime-aged men out of the workforce. Nevertheless, about half of the decline in the male prime-aged labor is due to permanent exits from the workforce.¹⁰³ This indicates that a lack of demand for unskilled labor is only a part of a broader trend that also features fractures on the supply side of the labor force. Prime-aged men who do not participate in the labor force are more likely than prime-aged men who are employed to describe their health as poor. A full 43 percent of prime-aged men who are out of the workforce described their health as either poor or fair, compared to only 12 percent of employed and 16 percent of unemployed prime-aged men.¹⁰⁴ Prime-aged women who are also out of the labor market were more likely to describe their health

¹⁰² Susan Adams, "How Unemployment and Depression Fit Together," *Forbes*, June 09, 2014, <https://www.forbes.com/sites/susanadams/2014/06/09/how-unemployment-and-depression-fit-together/#5ea708fa7b70>.

¹⁰³ Alan B. Krueger, "Where Have All the Workers Gone?"

¹⁰⁴ Alan B. Krueger, "Where Have All the Workers Gone?"

as poor or fair than prime-aged women who were employed; however, the difference between those two groups of women was smaller than the difference between prime-aged men.¹⁰⁵

As a group, both men and women who are out of the labor force are likely to report that they experience daily pain.¹⁰⁶ The sources of pain vary and may or may not be medically diagnosed. The intensity and frequency of pain reports increase if those who are out of work are also disabled. Prime-aged men not in the labor force are more likely to report disabilities that are characterized by difficulties with motor skills, climbing stairs, and lifting things.¹⁰⁷ In essence, the most common disability symptoms that are connected to prime-aged men dramatically affect their abilities to perform physical and traditionally blue-collar occupations. More than 40 percent of prime-aged men outside of the workforce reported having at least one disability; whereas, only 2.6 percent of employed prime-aged men and 5.8 percent of unemployed prime-aged men also reported possessing a disability.¹⁰⁸ Additionally, the lack of improvement in the employment rates for prime-age workers indicates that national and local economies are not effectively reintroducing disabled Americans back into the workforce.

These factors highlight the critical role that health plays in taking prime-aged men out of the labor force. It's important to note that many of the statistics regarding prime-age disabilities and well-being rely upon self-reported data as opposed to a definite medical analysis of health complications. Therefore, it is difficult to assess the extent of the medical ailments affecting prime-age men who do not participate in the labor market. For instance, it is unclear whether these men are suffering from permanent disabilities or whether their physical health

¹⁰⁵ Alan B. Krueger, "Where Have All the Workers Gone?"

¹⁰⁶ Preeti Varathan and Gwynn Guilford, "Nearly Half of Working-age American Men Who Are out of the Labor Force Are Using Painkillers Daily," Quartz, September 07, 2017, <https://qz.com/1070206/nearly-half-of-working-age-american-men-who-are-out-of-the-labor-force-are-using-painkillers-daily/>.

¹⁰⁷ Alan B. Krueger, "Where Have All the Workers Gone?"

¹⁰⁸ Alan B. Krueger, "Where Have All the Workers Gone?"

complications are being exacerbated by adverse mental health effects stemming from despair associated with a lack of economic opportunities. In this sense, the decline of prime-age men not participating in the labor force may take on a cyclical nature whereby existing physical complications are worsened by mental stress resulting from economic hardship. Regardless, of the evidence for or against the causes of these health declines, it is clear that poor male prime-age health greatly contributes to the decline in that group's labor participation rate in rural areas and across the broader nation as a whole.

To manage the pain associated with the health crisis affecting prime-age men, nearly half of prime-age men who are out of the workforce use daily pain medications.¹⁰⁹ Between 1999 and 2015, the prescription opioid industry widely expanded. During that time period, the sale of prescription painkillers per person more than quadrupled.¹¹⁰ The Centers for Disease Control and Prevention reported that between 1999 and 2017 nearly 218,000 people died in the United States from overdoses related to prescription opioid medications. Moreover, overdose mortality rates were five times higher in 2017 than in 1999 at the start of the epidemic.¹¹¹ The proliferation of opioid-based painkiller prescriptions unsurprisingly coincided with an increased rate of prescription medication abuse and overdoses. The opioid-based prescription rate rose nationally across the United States; however, rural counties were disproportionately affected and received a greater percentage rate of medication per person.

Once the supply of legal painkillers runs out or is no longer covered by insurance companies, many addicted individuals turn to cheaper and more readily available alternatives,

¹⁰⁹ Preeti Varathan and Gwynn Guilford, "Nearly Half

¹¹⁰ Preeti Varathan and Gwynn Guilford, "Nearly Half

¹¹¹ "Opioid Overdose," Centers for Disease Control and Prevention, December 19, 2018, <https://www.cdc.gov/drugoverdose/data/prescribing.html>.

such as heroin.¹¹² Prescription drug abuse and the opioid epidemic have produced an increase in mortality rates that disproportionally affect the male prime-age employment group. This is cause for particular concern in rural regions given that these areas already suffer from the effects of a lower population of prime-age workers. The lack of readily available and equipped medical centers in rural communities means that rural patients are supplied greater dosages of pain medication due to the distance and difficulty accessing pharmacies. This is one of several reasons why rates of addiction are comparatively higher in rural communities. The origin of addiction in rural communities often begins with legally prescribed opioid-based medication. The seemingly pedestrian source of addiction in rural America combined with preconceived notions and mythic conceptions of rurality make it unlikely that those outside of rural America expect to find these problems in those communities.

The decline of prime-age workers further serves to hollow out rural economies and communities, since outmigration and higher mortality rates lead to a smaller share of the total rural population that is physically able to perform age-appropriate labor. In 2015, drug overdoses numbered over 52,000 and surpassed gun deaths and car crashes to become the leading cause of injury death in the United States.¹¹³ These overdose figures include intentional and accidental deaths. The Northeastern region of the United States was the most susceptible to overdose deaths in 2016. West Virginia led the nation with an overdose rate of 52 per every 100,000 people. Pennsylvania, Washington D.C., New Hampshire, and Ohio followed with each state accounting

¹¹² "How Opioid Addiction Occurs," Mayo Clinic, February 16, 2018, <https://www.mayoclinic.org/diseases-conditions/prescription-drug-abuse/in-depth/how-opioid-addiction-occurs/art-20360372>.

¹¹³ "CDC Reports Rising Rates of Drug Overdose Deaths in Rural Areas," Centers for Disease Control and Prevention, October 19, 2017, <https://www.cdc.gov/media/releases/2017/p1019-rural-overdose-deaths.html>.

for approximately 39 overdose deaths per 100,000 people.¹¹⁴ Many small communities in the Northeastern United States have begun to feel the effects of the opioid crisis owing to the expansion of cheap and readily available forms of heroin that moved into remote areas of the countryside from nearby cities.¹¹⁵ In recent years, heroin addiction has extended to include communities that were not historically associated with the drug trade. For instance, Berks County in Southeastern Pennsylvania has experienced an influx of heroin from the nearby city of Philadelphia. The effects of this influx were so dramatic that local school districts, such as Kutztown Area High School, started carrying the life-saving anti-overdose medication naloxone, which, if injected in a timely manner, prevents the most severe effects of an opioid overdose on the brain.¹¹⁶

In addition to the spread of heroin, there has been a marked increase in the number of overdose deaths related to synthetic opioids. In 2017, synthetic opioids accounted for the 28,000 deaths and were the leading type of opioid involved in opioid overdoses in the United States. Most of the increase has been a result of fentanyl contamination. The drug fentanyl is a highly potent narcotic used to treat severe pain. Fentanyl and its analogs are approximately 50 times as potent as heroin and are cheaper to produce, which has resulted in the drug's soaring popularity in illicit markets. The Drug Enforcement Agency reported in 2016 that hundreds of thousands of counterfeit prescription pills confiscated from regions across the United States had been mixed with fentanyl. The agency also reported that fentanyl has been mixed with large amounts of

¹¹⁴ Rich Lord, "CDC: Pennsylvania among Four States Hardest Hit by Overdoses," Pittsburgh Post-Gazette, December 21, 2017, <https://www.post-gazette.com/news/health/2017/12/21/CDC-releases-opioid-overdoses-deaths-data-figures-surge-fentanyl/stories/201712210100>.

¹¹⁵ Cari Nierenberg, "Who Uses Heroin? Not Who You Might Think," LiveScience, May 29, 2014, <https://www.livescience.com/45969-who-uses-heroin.html>.

¹¹⁶ Melissa Block, "A Small-Town Wonders What to Do When Heroin Is 'Everywhere'," NPR, March 12, 2016, <https://www.npr.org/sections/health-shots/2016/03/12/469954366/a-small-town-wonders-what-to-do-when-heroin-is-everywhere>.

heroin and methamphetamine. The drug is often added without the drug user's knowledge, and due to its potency contributes to increased overdose rates since fentanyl is far more lethal in small quantities than the drugs it has been known to be mixed with. For instance, in an analysis of ten states, conducted by the Centers for Disease Control, more than half of those who overdosed from opioids tested positive for fentanyl. Northeastern and Southern states were most likely to have greater instances of fentanyl overdoses than the other regions of the United States.¹¹⁷

In comparison to the increase of drug overdose deaths in suburban areas, rates of drug addiction and overdoses in rural counties are more extreme. At the turn of the millennia, urban areas possessed the highest rates of drug overdose deaths. However, by 2006 drug addiction and overdose rates were trending higher in rural counties than urban counties. Overdose death rates in rural areas surpassed their urban counterparts in 2015 when the rural death rates stemming from overdoses were 17 per every 100,000 while urban death rates were 16.2 per every 100,000.¹¹⁸ Nevertheless, owing to a characteristically larger population, urban areas still experience a larger number of total deaths from drug overdoses. However, rural areas experience a greater percentage share of mortality rates related to drug overdoses and the resultant consequences for local communities of those deaths are greater. The connection between prime-age labor force participation rates and the prevalence of opioid-based medications are observably apparent. The graph below displays the relationship between high opioid prescription rates and declining shares of prime-age rates of labor force participation.¹¹⁹ Interestingly, the Centers for

¹¹⁷ "Synthetic Opioid Overdose Data," Centers for Disease Control and Prevention, December 19, 2018, <https://www.cdc.gov/drugoverdose/data/fentanyl.html>.

¹¹⁸ "CDC Reports Rising Rates of Drug Overdose Deaths in Rural Areas,"

¹¹⁹ Fred Dews, "How the Opioid Epidemic Has Affected the U.S. Labor Force, County-by-county," Brookings, September 07, 2017, <https://www.brookings.edu/blog/brookings-now/2017/09/07/how-the-opioid-epidemic-has-affected-the-u-s-labor-force-county-by-county/>.

Disease Control and Prevention indicated that fatal overdose rates for rural men are near twice the rates associated with rural women in the prime-age working group.¹²⁰ This gender disparity supports the notion that deteriorating economic conditions in rural areas have led to adverse psychological ramifications for prime-age men who had, as a group, historically provided economic security to rural households.

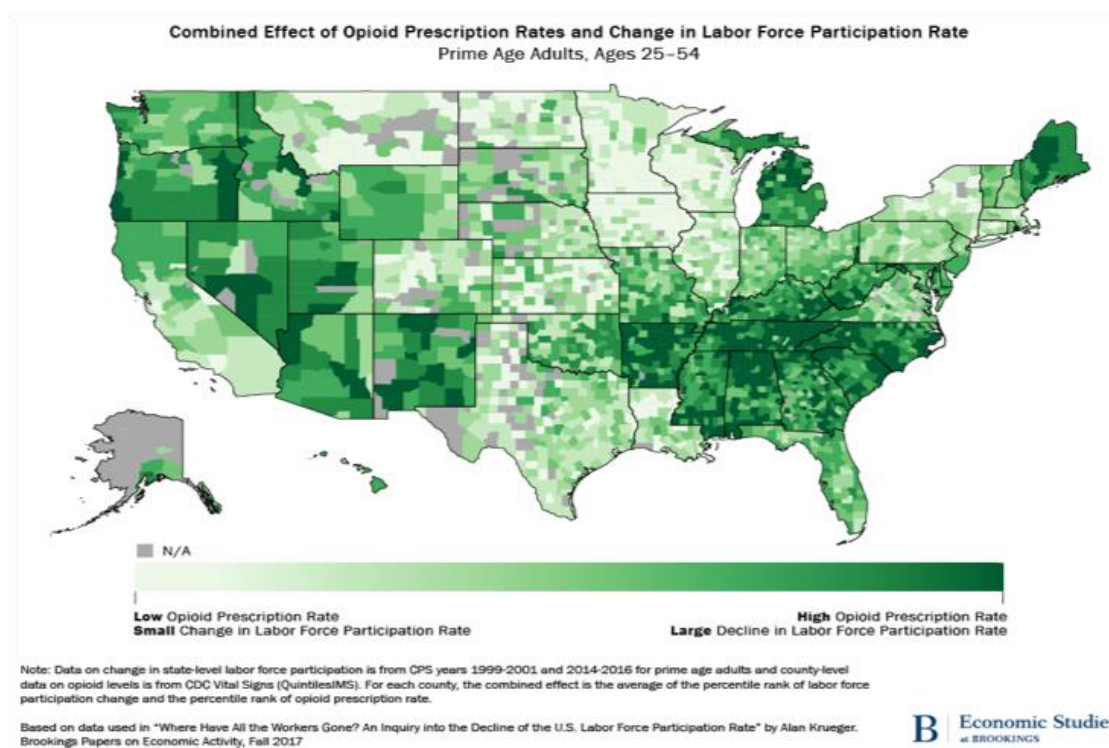


Figure 8

The opioid crisis gained momentum amid an increase in the overall national opioid prescription rate that the Centers for Disease Control traced to 2006. The number of opioid prescriptions rose every year after 2006 and peaked in 2012 with more than 255 million opioid-based prescriptions written in that year alone. The large number of prescriptions represented a national prescribing rate of 81.3 opioid-based prescriptions per 100 people in 2012. Since the rate of prescriptions peaked in 2012, the overall national prescribing rate has experienced a near-

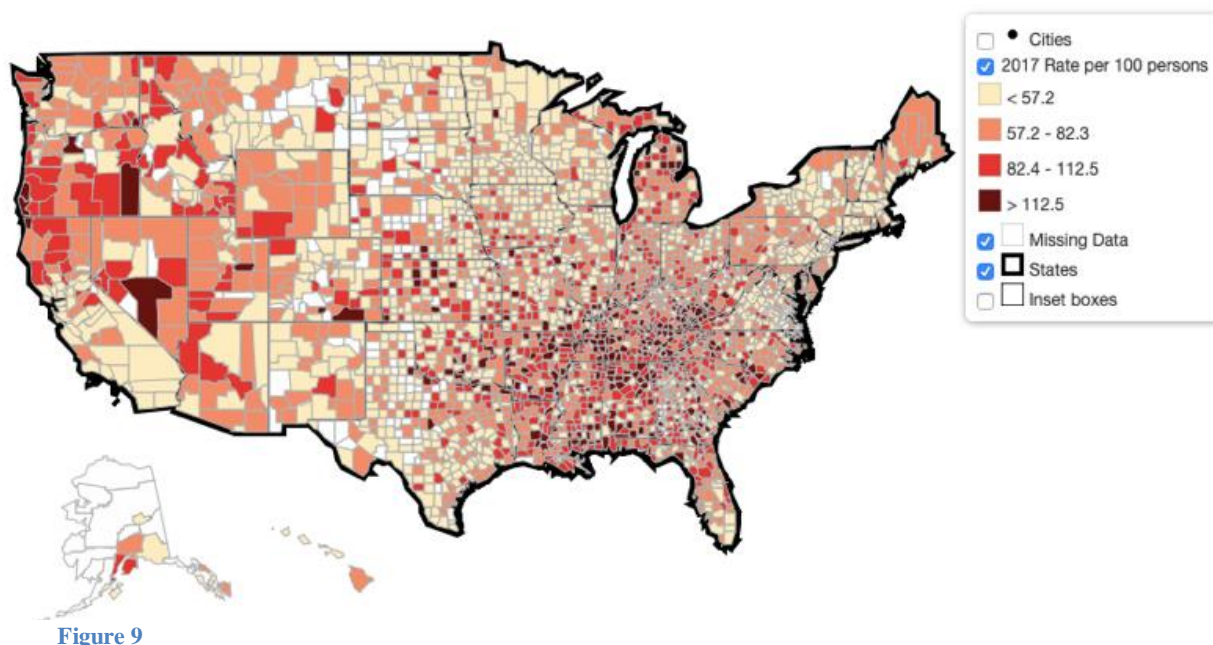
¹²⁰ Rich Lord, "CDC: Pennsylvania among Four States Hardest Hit by Overdoses,"

annual decline, and in 2017 the rate of prescription opioid-based medications dispensed fell to the lowest it has been in 10 years. In 2017, the number of prescriptions fell to 191 million and represented a prescribing rate of 58.7 opioid-based prescriptions per 100 people.

Although the number of opioid-based prescriptions are down nationally, rates of prescription remain disproportionately high in certain regions of the country. While the prescribing rate of opioid-based prescriptions was 58.7 per 100 people in 2017, that number was found to be seven times higher in some counties, and 16 percent of counties in the United States still were prescribed enough opioid prescriptions to dispense to every person in the county.¹²¹ Therefore, many counties, especially those with low rates of labor force participation, are still exposed to 2012 rates of opioid-based prescribed medications. The below map of the United States shows a breakdown by county of the rate of opioid-based prescriptions per 100 people and illustrates the extent of the prescription disparity between countries.¹²²

¹²¹ "Opioid Overdose," Centers for Disease Control and Prevention

¹²² "Opioid Overdose," Centers for Disease Control and Prevention



The disparity between prescription rates per county is rendered more striking in consideration of Mingo County in West Virginia, which is the state with the largest rate of drug overdose deaths in the United States. West Virginia experienced a massive increase in the amount of opioid-based medications prescribed in 2006. The development of this situation is complex and involved controversial pharmaceutical lobbying practices to doctors, unclear drug labeling, lack of opioid addiction education, and genuine instances of attempts to improve patients' ability to manage pain. Mingo County is a largely rural area in Southwestern West Virginia that possessed the fourth largest rate of prescription opioid deaths of any county, rural or urban, in the United States. Over the course of just two years, 9 million opioid-based pain medications were shipped by out-of-state drug companies to only one pharmacy in Mingo County. Altogether, the state of West Virginia imported more than 780 million opioid painkillers in just six years. This figure represents enough medication to give every individual living in West Virginia more than 433 opioid-based drugs annually. Of those 780 million pills imported

into West Virginia, the three largest prescription drug suppliers in the United States provided more than half of those opioid-based medications.¹²³

Despite the vast quantities of prescription painkillers and the size of prescription drug companies, the government has taken steps to help limit the most dangerous and addictive prescription drugs from the market. In 2017, the Food and Drug Administration (FDA), posted a press release that described how the agency demanded that Endo Pharmaceuticals remove its newly reformulated prescription opioid pain medication, Opana ER from the market.¹²⁴ The FDA became concerned that the reformulated drug posed greater harm than benefit to the public. The FDA established an important precedent, as the ban on Opana ER represented the first time that a currently marketed opioid pain medication was retroactively banned.

The FDA justified its decision by demonstrating that the newly reformulated version of Opana ER was being abused through injection, as opposed to being abused through nasal ingestion. Drug abuse through injection generally increases the probability of a fatal overdose and also increases the likelihood that bloodborne infectious diseases like HIV and Hepatitis C will spread. The ultimate decision to ban the reformulated Opana ER was reached after an advisory panel to the FDA voted in favor of the proposition that Opana ER was more detrimental than beneficial.¹²⁵ Nevertheless, prescription drug companies argue that they maintain stringent adherence to current drug laws and safety precautions. For instance, Endo Pharmaceuticals only delivered their opioid-based painkillers to authorized pharmacies that then were supposed to

¹²³ Eric Eyre, "Drug Firms Poured 780M Painkillers into WV amid Rise of Overdoses," Charleston Gazette, December 17, 2016, https://www.wvgazettemail.com/news/health/drug-firms-poured-m-painkillers-into-wv-amid-rise-of/article_78963590-b050-11e7-8186-f7e8c8a1b804.html.

¹²⁴ "Press Announcements - FDA Requests Removal of Opana ER for Risks Related to Abuse," US Food and Drug Administration, June 08, 2017, https://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm562401.html.source=govdelivery&utm_medium=email&utm_source=govdelivery.

¹²⁵ "Press Announcements - FDA Requests Removal of Opana ER for Risks Related to Abuse,"

distribute those medications only to patients who possessed valid prescriptions signed by a doctor, who supposedly was supervising the medical care administered to individual patients.

Therefore, Endo Pharmaceuticals would argue that unethical doctors and criminal drug dealers are to blame for the rise of opioid-related deaths in the United States, and not the companies producing the drugs. However, the FDA commissioner, Scott Gottlieb, M.D., stated: “We [the FDA] will continue to take regulatory steps when we see situations where an opioid product’s risks outweigh its benefits, not only for its intended patient population but also in regard to its potential for misuse and abuse.”¹²⁶ Perhaps the federal government could encourage the FDA to take more aggressive action against pharmaceutical companies that produce highly addictive opioid painkillers in order to curtail fatal overdose rates.

Moreover, the federal government could explore investing in expanded health insurance and educational programs to prevent the increase of fatal overdoses. Since prime-aged males who do not participate in the labor force are particularly at risk of dying from opioid overdoses, it may be beneficial to enlarge access to health coverage and preventable care programs owing to the relatively high rates of poverty also associated with this group. Improved access to and more regular visits to healthcare centers may allow prime-aged men who do not participate in the workforce the ability to attempt alternative methods for pain management therapies aside from prescription medications. For example, mental health and addiction counseling have been known to assist in pain management. Moreover, emergent pain management treatments that are not chemically addictive, like medical marijuana, are increasingly being made available to those formerly addicted to opioid-based pain medication. As of March 2019, thirty-three states, the District of Columbia, Guam, Puerto Rico, and the U.S. Virgin have enacted legislative measures

¹²⁶ “Press Announcements - FDA Requests Removal of Opana ER for Risks Related to Abuse,”

to make medicinal marijuana available as an alternative approach to traditional pain management therapies.¹²⁷

Additionally, improvement to the quality of drug education programs may improve overdose survival rates, particularly in rural regions where medical crews take longer to arrive at the scene of an emergency. A majority of overdose deaths occur in the home where the individual overdosing is most likely to be found by a family member.¹²⁸ Targeted educational programs could better assist relatives' acquisition of the knowledge necessary to become a first responder, how to contact emergency services, and, to the best of their abilities, overall stabilize the victim. Helping individuals recognize the signs associated with overdose reactions to different drugs may also help provide medical professionals with life-saving time by giving them early information about the specific drugs that the victim had abused in the past.

The government could also benefit from free market solutions to address the opioid epidemic. The Centers for Disease Control and Prevention estimate that the total drain on the American economy from opioid abuse costs the United States around 78.5 billion annually. This figure takes into account high health care costs, treatment programs, and incarceration expenses.¹²⁹ Due to the enormous price tag associated with the opioid crisis in terms of social service provision, medical expenses, and lost labor, it makes sense for the state and federal governments to subsidize efforts that may reduce the long-term economic strains associated with the opioid crisis. The federal government could sponsor research and promote the availability of

¹²⁷ "State Medical Marijuana Laws," State Medical Marijuana Laws, March 5, 2019, <http://www.ncsl.org/research/health/state-medical-marijuana-laws.aspx>.

¹²⁸ "Illicit Drug Use, Illicit Drug Use Disorders, and Drug Overdose Deaths in Metropolitan and Nonmetropolitan Areas," Centers for Disease Control and Prevention, October 20, 2017, https://www.cdc.gov/mmwr/volumes/66/ss/ss6619a1.htm?s_cid=ss6619a1_w.

¹²⁹ "Opioid Overdose Crisis," National Institute of Drug Abuse, March 2018, <https://www.drugabuse.gov/drugs-abuse/opioids/opioid-overdose-crisis#two>.

new hospital technologies. For instance, the Texas Hospital Association is attempting to use a new software system that endeavors to make a patient's history of opioid prescriptions more transparent to doctors by tracking all drug use. The software essentially tags the patient's medical profile and alerts doctors to the possibility of over-prescription.¹³⁰ The software is even supposed to monitor opioid medications administered by medical staff in ambulances in route to hospitals. This technology could prove instrumental to catching early signs of prescription medication abuse, whether accidental or intentional, and should be considered for federal subsidization.

Furthermore, the federal government could assist with the funding and development of drugs that are used to fight opioid addiction. For example, the medication Suboxone was approved by the FDA in 2002 and developed to curtail the effects of opioid addictions. This medication is essentially a combination of two other drugs. The drug buprenorphine supplies small doses of opioids to a patient addicted to a stronger opioid. Buprenorphine reduces withdrawal symptoms by continuing to allocate the addict with a certain predetermined number of opioid chemicals. Meanwhile, the drug naloxone works to restrict opioids from reaching receptors in the brain that causes the addict's euphoric sensations. However, naloxone alone risks triggering withdrawal symptoms. Therefore, buprenorphine and naloxone are combined to produce Suboxone.¹³¹

¹³⁰ Mike Miliard, "Texas Hospital Association Pilots Tech Giving View of Inpatient, Outpatient Opioids," Healthcare IT News, July 27, 2018, <https://www.healthcareitnews.com/news/texas-hospital-association-pilots-tech-giving-view-inpatient-outpatient-opioids>.

¹³¹ Marisa Crane, "Suboxone Addiction and Abuse Treatments," American Addiction Centers, November 29, 2018, <https://americanaddictioncenters.org/suboxone>.

In 2013, Suboxone sold 1.55 billion dollars' worth of medication. It outsold both Viagra and Adderall in that year.¹³² Nonetheless, Suboxone is not entirely harmless. Many former addicts that use Suboxone discover that, despite the muted effects of the opioids in Suboxone, they become addicted to the medication. While it is true that the effects of Suboxone addiction are much less severe than addiction to heroin, the addictive nature of Suboxone challenges healthcare professionals as an individual's Suboxone addiction may lead that individual to pursue more dangerous and addictive opioids and simply advance addictive behaviors. Therefore, an expansion in the availability of Suboxone medication should also coincide with policies that promote an understanding of the risks associated with Suboxone addiction.

To facilitate the fight against opioids in more remote rural areas, a reallocation of state and federal resources to these disadvantaged regions is necessary. However, it remains unclear as to whether the current political process is conducive to facilitating a reallocation of resources in this manner. The allocation of state resources is often a highly political process. Politicians are not incentivized to distribute resources to areas that are generally characterized by one party-political entrenchment. For example, there is little motivation for a state politician belonging to the Democratic party to lobby for the allocation of state resources to counties that consistently vote Republican. Likewise, there is also little motivation for a state politician belonging to the Republican party to lobby for the allocation of state resources to counties that consistently elect Democrats.

Rural economic conditions that are exacerbated by outmigration and prime-aged mortality rates also complicate the political underpinning of these regions. Disproportionate

¹³² Deborah Sontag, "Addiction Treatment with a Dark Side," The New York Times, November 16, 2013, https://www.nytimes.com/2013/11/17/health/in-demand-in-clinics-and-on-the-street-bupe-can-be-savior-or-menace.html?_r=0.

economic growth between rural and urban counties foster sentiments that can be described as feelings of national abandonment throughout rural communities. Rural counties played an instrumental role in the 2016 election of Donald Trump. The total percentage of rural Americans who voted Republican increased 9 percentage points from the 2008 to 2016 elections.¹³³ This percent change was not uniform across rural regions; however, lower population rates were indicative of a higher share of Republican voters. Steve Bannon, Donald Trump's lead campaign strategist, stated that the only number their 2016 Presidential campaign was concerned with was whether Americans felt the nation was on the "right or wrong" track.¹³⁴ In this sense, regional economic disparities resulted in profound political repercussions owing to the amount of strain that lower living standards, higher incidences of drug addictions rates, and broader economic failings affected rural residents.

New Hampshire's Coös County Youth Study proved instrumental to determining how these trends are affecting the people who live in rural America. The Coös County Youth Study was a ten-year long research project that sought to better understand the reasoning behind the choices that young rural individuals made in regard to their future. The study began in 2008 and continued through 2018. The study's participants were surveyed at least once every two years and a smaller group of participants delivered in-depth interviews.¹³⁵ Coös County is located in northern New Hampshire and is one of the most rural areas in the state. The county encompasses an area of 1,830 square miles. Its economy was historically characterized as a major logging and

¹³³ Danielle Kurtzleben, "Rural Voters Played A Big Part in Helping Trump Defeat Clinton," NPR, November 14, 2016, <https://www.npr.org/2016/11/14/501737150/rural-voters-played-a-big-part-in-helping-trump-defeat-clinton>.

¹³⁴ Steve Bannon, "Steve Bannon | Full Address and Q&A" (address, Steve Bannon | Full Address and Q&A, England, Oxford), November 16, 2018, <https://www.youtube.com/watch?v=8AtOw-xyMo8>.

¹³⁵ Michael S. Staunton and Eleanor M. Jaffee, "Key Findings and Recommendations from the Coös Youth Study," Carsey Research, no. 41, <https://scholars.unh.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=1219&context=carsey>.

paper milling center. In 2018, the primary economic industries include tourism and plastic manufacturing.¹³⁶ The county is primarily white and, as of 2017, contained a total population of 31,634 residents. Data gathered from the United States Census Bureau showcased that the county has experienced population declines every decade since 1990.¹³⁷

Coös County Population Declines

| | |
|--------------|-------|
| 1990: 34,828 | -0.9% |
| 2000: 33,111 | -4.9% |
| 2010: 33,055 | -0.2 |
| 2017: 31,634 | -4.3% |

Figure 10

As a result of population declines the median age of Coös County is 47.9 years old, which is well above the national median of 38 years old.¹³⁸ The median household income in Coös County is \$45,000, which is below the national median of \$61,000.¹³⁹ Moreover, the median property value in Coös County is \$122,000, which is below the national average of \$217,000.¹⁴⁰ These statistics are indicative of rural America's weaker economic status and smaller population.

According to the Coös County Youth Study, one-third of adolescents in Coös County reported that their family was experiencing significant economic pressure. The economic strain placed upon families in Coös County has led to rising pessimism regarding the possibility for opportunities in the region. The percentage of adolescents that reported it was easy for

¹³⁶ "Coos County, NH," Data USA, <https://datausa.io/profile/geo/coos-county-nh/#health>.

¹³⁷ "U.S. Census Bureau QuickFacts: Coos County, New Hampshire," Census Bureau QuickFacts, <https://www.census.gov/quickfacts/cooscountynewhampshire>.

¹³⁸ "Median Age of the U.S. Population 1960-2017 | Statistic," Statista, January 12, 2019, <https://www.statista.com/statistics/241494/median-age-of-the-us-population/>.

¹³⁹ "Median Household Income in the United States," FRED, September 12, 2018, <https://fred.stlouisfed.org/series/MEHOINUSA646N>.

¹⁴⁰ Emmie Martin, "This Map Shows How Much It Costs to Own a Home in Every US State," CNBC, December 17, 2018, <https://www.cnbc.com/2018/12/14/median-home-value-in-every-us-state-via-the-us-census-bureau.html>.

individuals their age to find a job in Coös County in 2008 was 67 percent. In 2009, 39 percent of those same adolescents responded that finding a job was easy. That figure continued to decline and in 2011, only 19 percent of those adolescents originally surveyed felt that it was easy for people their age to find a job.¹⁴¹ Those involved in the Coös County Youth Study reported that they experienced higher instances of depression and substance abuse in comparison to urban and national averages for their age-group. The study found that those who described their family as facing economic hardship were more likely to have mental health problems and engage in substance abuse. The study also found that adolescent men from economically depressed families were more likely to engage in substance abuse and general criminal activity.¹⁴²

The Coös County community and public officials are able to take some measures to curtail the rates of depression and substance abuse amongst Coös County adolescents. For instance, the Coös County Youth Study found that adolescents in Coös County who were involved in after school extracurricular activities reported fewer instances of substance abuse and had better expectations in regard to their future.¹⁴³ The study's findings are in line with data from a variety of studies conducted across the United States that show extracurricular activities reduce rates of adolescents substance abuse and criminal involvement.¹⁴⁴ The public school system can play an instrumental role in promoting after school clubs and sports. Additionally, public-schools could help form mentor relationships that curtail substance abuse rates by pairing younger students with their older peers who have demonstrated an ability to serve as positive role models. The county's overall approach toward substance abuse should involve upstream interventions

¹⁴¹ Michael S. Staunton and Eleanor M. Jaffee, "Key Findings and Recommendations"

¹⁴² Michael S. Staunton and Eleanor M. Jaffee, "Key Findings and Recommendations"

¹⁴³ Michael S. Staunton and Eleanor M. Jaffee, "Key Findings and Recommendations"

¹⁴⁴ Lynne M. Borden, Joseph F. Donnermeyer, and Scott D. Scheer. "The influence of extra-curricular activities and peer influence on substance use." *Adolescent & Family Health*, 2001, <https://psycnet.apa.org/record/2002-10875-002>.

that emphasize improving the student's ability to manage stress brought on by their family's circumstance.

The pessimistic views of the future that many Coös County adolescents share have resulted in an increased rate of outmigration that has characterized Coös County for the past three decades. In 2009, the Coös County Youth Study found that 76 percent of adolescents felt that leaving Coös County was highly or moderately important. However, 93 percent of those same adolescents felt that living close to family was highly or moderately important. The vast majority of Coös County adolescents want to live near their families as adults; nevertheless, more than half of Coös County adolescents do not intend to live in the county after graduation and more than one-third expect to leave and never return.¹⁴⁵ The survey results suggest that Coös County adolescents hold conflicting priorities. Many would like to remain in the county, but also understand that stable economic opportunities lie outside of their hometown.

In 2011, of the adolescents involved in the 2009 survey nearly half were still living in Coös County and 81 percent of those that had moved away were attending school full-time.¹⁴⁶ The large percentage of those attending school is significant because college graduates are more likely to move longer distances and more often than those with high school diplomas or less. Additionally, college graduates are more likely to choose their location based upon employment opportunities and salary scale.¹⁴⁷ In light of these trends, it's unlikely that Coös County will retain a majority share of those adolescents who left to pursue higher education or employment opportunities due to the county's constrained economic circumstance.

¹⁴⁵ Michael S. Staunton and Eleanor M. Jaffee, "Key Findings and Recommendations"

¹⁴⁶ Michael S. Staunton and Eleanor M. Jaffee, "Key Findings and Recommendations"

¹⁴⁷ D'Vera Cohn and Rich Morin, "Who Moves? Who Stays Put? Where's Home?" Pew Research Center's Social & Demographic Trends Project, December 29, 2008, <http://www.pewsocialtrends.org/2008/12/17/who-moves-who-stays-put-wheres-home/>.

In addition to economic challenges and outmigration, Coös County has also undergone a political shift that resembled a change that characterized many rural communities in America. The county is largely working-class and had historically voted Democrat. Local representatives in Coös County tended to be Democrats; however, Republican representatives also held positions in local government. In other words, Coös County was not entirely partisan, but the county did have a proclivity toward voting in favor of Democratic presidential candidates. The table below showcases the polling results in Coös County from Presidential Elections since 1992.¹⁴⁸

| Coös County Presidential Election Results | |
|--|---------------------|
| Democrat 1992 | 39% to 37% |
| Democrat 1996 | 49% to 39% |
| Republican 2000 | 50% to 45% |
| Democrat 2004 | 51% to 48% |
| Democrat 2008 | 59% to 40% |
| Democrat 2012 | 58% to 41% |
| Republican 2016 | 52% to 43% |

Figure 11

As evidenced from the polling results, Coös County primarily elected Democrats; however, in 2016 the county voted in favor of Donald Trump. Matt Cicielowski was the leading Republican political strategist in New Hampshire and served as the New Hampshire state director for Donald Trump's 2016 Presidential Campaign.¹⁴⁹ Cicielowski's strategy for the New Hampshire campaign largely followed Steve Bannon's philosophy, which posited the only polling that mattered pertained to whether Americans felt the country was on the "right or wrong" track.¹⁵⁰

¹⁴⁸ "New Hampshire Election Results 2016: President Live Map by County, Real-Time Voting Updates," POLITICO, December 13, 2016, <https://www.politico.com/2016-election/results/map/president/new-hampshire/>.

¹⁴⁹ "Matt Cicielowski," Ballotpedia, <https://ballotpedia.org/MattCicielowski>.

¹⁵⁰ Steve Bannon, "Steve Bannon | Full Address and Q&A"

In this manner, Cipielowski's campaign focused upon the claim that rural America had undergone broad economic abandonment that was facilitated by the mainstream political system. The campaign argued that Donald Trump represented an outsider candidate who would break ranks with the political status-quo. Furthermore, the Make America Great *Again* platform served to remind rural residents, like those in Coös County, that their economic circumstances and their community's outlook had been in better condition prior to the last three decades. The anti-establishment political message also resonated amongst Democrats in Coös County. The county overwhelmingly voted in favor of Bernie Sanders in the Democratic Primary. Sanders won Coös County by earning 60.5 percent of the vote in comparison to Hillary Clinton's 38 percent.¹⁵¹ Although Trump and Sanders are entrenched in different political parties, they shared an outsider political status and emphasized the necessity of economic reform that favored those left behind in the wake of the shifting economic trends of the new millennium.

¹⁵¹ Wilson Andrews et al., "New Hampshire Primary Election Results 2016," The New York Times, September 29, 2016, <https://www.nytimes.com/elections/2016/results/primaries/new-hampshire>.

Conclusion

The economic decline in rural counties across the United States has profound ramifications for all Americans everywhere. Rural communities have borne the most immediate effects of their economic transformation brought on by globalization and a shift in manufacturing. The broad decrease in sustainable high-wage work has resulted in an increased level of outmigration that accelerated and further entrenched poor rural economic performance that served to decrease the general quality of rural life. Without changes to current trade policy, it is likely that the rural manufacturing sector will continue to deteriorate. The manufacturers that remain in rural areas are drawn to those regions primarily for tax benefits and reduced land prices. However, as the youth labor force migrates with greater frequency to urban regions, more manufacturing plants will move in closer proximity to urban areas in an effort to draw talent and a steady stream of employees. This shift would further destabilize rural economies and also add to the spatial and energy constraints of urban counties. Although these manufacturing plants would face higher operational costs and an initial reduction in capacity as they develop new supply lines and train or employ a new labor force, this could become a consistent preference if the deleterious dynamics sinking the quality of life in rural communities are allowed to deepen unabated. In the meantime, the United States would have to increase its imports in order to regain losses in national manufacturing output brought on by declines in productivity that were the result of outmigration from rural regions. Increasing imports would result in the dual effect of raising the national trade deficit and diminishing the self-sustainability of the American economy.

In addition to potential macro-economic consequences of outmigration from rural counties, rural communities suffer from a diminished tax base that affects the local government's ability to maintain adequate funding for basic services. These services are broad and include funding to public-schools, infrastructural development, healthcare, and law enforcement. In this manner, rural outmigration has the potential to become a cyclical economic burden on rural economies since as the economy worsens the more likely outmigration grows and the less likely migrants are to return. Those that remain in economically depressed rural counties are increasingly either too poor or too old to move. Rural communities consistently have poverty rates higher than the national average rates and the rising cost of urban living further hinders the ability of many rural residents to move to seek better employment prospects. Furthermore, older rural residents often remain in economically failing rural counties due to a broad decline in rural property values that are likely to serve as an extension of their savings account even though making withdrawals from this account has also become increasingly difficult. The poor and elderly, two vulnerable populations, that live in rural communities that have diminished tax bases due to outmigration, experience a resultant reduction in the amount and quality of basic and vital services, such as available healthcare. In order to prevent further economic degradation and promote sustainable employment opportunities in rural counties, state and local governments must undertake concerted efforts to entice migrants back and prevent prime-age workers from leaving rural areas.

In light of the readily apparent harms to rural economies from outmigration, many states and local municipalities have begun to experiment with possible solutions to the rural population problem. For instance, Linc Kroeger developed a program known as *Future Ready Iowa* that aims to promote software development employment opportunities in rural counties. Kroeger

grew up in a rural area in Iowa and left his small hometown after he graduated from college. Kroeger returned to the rural town of Jefferson, Iowa to raise his family. Kroeger successfully lobbied the local government to provide a bond for Jefferson's community college to teach students the prerequisite knowledge required to take part in the *Future Ready Iowa* program. The program is designed to train individuals for remote tech positions. The goal of *Future Ready Iowa* is to match small teams of technologists to high-tech facilities that are much cheaper to build and maintain in rural areas. If tech jobs can be outsourced to India, why not then to rural areas within the United States? The work that the technologists complete would then be digitally delivered to their clients. The potential for remote tech jobs is especially significant given the relatively high wages associated with tech careers. The average salary in Jefferson Iowa is \$43,333 while the *Future Ready Iowa* program starts employees at \$55,000 to \$60,000.¹⁵²

In addition to the possibility for remote tech jobs, some states and rural counties have attempted to incentivize entrepreneurship through providing tax breaks, subsidies, and other financial advantages to individuals that move to or start businesses in rural communities. For instance, Marne, Iowa allots new residents free designated land to build a home.¹⁵³ Additionally, new residents in Grant County, Indiana automatically receive a \$5,000 down payment from the local government to put toward a new home.¹⁵⁴ Incentives involving homeownership are particularly beneficial to rural areas since individuals who purchase homes are unlikely to temporarily remain in the region. Instead, homeownership often implies more permanent commitments and consequently indicates a more long-term economic benefit to the community.

¹⁵² "Rural Forge Initiative," Pillar Technology, 2019, <https://pillartechnology.com/ruralforge>.

¹⁵³ "Marne Free Lots," City of Marne, Iowa, 2019, <https://www.marneiowa.com/marne-free-lots/>.

¹⁵⁴ "Grant for Grads," Grant County, Indiana, <http://grantcounty.com/gcegc-2/programs/grant-for-grads/>.

In 2011, the state of Kansas began to offer state tax breaks and Kansas state tuition repayment programs to individuals who moved to rural counties that suffered population declines.

In 2014, the state of Kansas released a report that found 330 individuals received state income tax breaks for moving to rural counties characterized by population loss. According to the report, those individuals generated over \$44 million in benefits to rural economies and cost the state approximately \$800,000 in lost tax revenue.¹⁵⁵ Other creative solutions for combating rural economic decline include embarking upon efforts to consolidate public services and apply for federal and state funding or grants by forging a conglomeration of rural counties. The National Association of Counties is an organization of county officials from across the nation that attempt to promote the welfare of rural counties by lobbying as a collective voice. The National Association of Counties released a report in 2014 that summarizes examples of how rural counties in the United States successfully consolidated their services.¹⁵⁶

Although the solutions outlined above will not completely reverse or eliminate the decades long trend of rural depopulation, they represent a starting point from which broader reform will become more feasible. These initiatives have the potential to close, if not completely, eliminate the growing gap in quality of life indicators that are plaguing the urban-rural divide in America. The present trajectory of the American economy will continue to pull more prime-age and college-educated workers away from rural counties; however, incentivizing talented youths to remain or migrate back to rural areas will prove critical to fostering the circumstances necessary for sustainable economic development in those regions. The health and strength of a

¹⁵⁵ Chris Harris, "Kansas Department of Commerce Rural Opportunity Zones Overview and Economic Impact," February 25, 2015, http://kslegislature.org/li_2016/b2015_16/committees/ctte_s_cmrce_1/documents/testimony/20150225_01.pdf.

¹⁵⁶ Bob Fox and Judy Rath, "Cultivating a Competitive Advantage," November 2014, http://www.naco.org/sites/default/files/documents/2014_RAC_case-studies.pdf.

broader national economy and the shared American historical memory depend upon the economic survival of the nation's land that remains classified as rural.

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ACADEMIC VITA

BRIAN D. PALMER

EDUCATION

The Pennsylvania State University | Schreyer Honors College
College of Liberal Arts | Bachelor of Arts in History

University Park, PA
Class of May 2019

PROFESSIONAL EXPERIENCE

Penn State Writing Center

Writing Tutor

University Park, PA
Aug 2018 – Present

- Selected from a pool of applicants to take part in a semester long training program, which evaluated potential candidates' academic dedication, linguistic abilities and communicative effectiveness
- Improved students' mastery of language, rhetoric and communication by evaluating organizational and stylistic approaches
- Conducted face-to-face tutoring sessions for primary and English as a Second Language (ESL) learners to complete an average of 4 assignments per week on topics from a broad range of majors

Goehring Rutter & Boehm

Tax Collections Intern

Pittsburgh, PA
May 2018 – Aug 2018

- Researched public records databases to gather information about an individual's current deed, past and present contact materials and financial status to determine whether that individual should be served formal court documents
- Edited and maintained internal records of preliminary reports that were filed in accordance to respective attorney comments
- Merged the edited materials from 60+ accounts weekly to create and mail *praecipies* that set court dates and notified defendants of the nuances associated with particular written orders and their right to contest the specific charges outlined

LEADERSHIP & INVOLVEMENT

Market Analysis Group

Commodities Lead Analyst

University Park, PA
Aug 2017 – May 2018

- Managed a team of 5 analysts by editing and formatting their written articles to guarantee the article's fitness for publication
- Authored 10 articles on topics pertaining to various fields such as healthcare, emerging markets and monetary policy
- Actively researched and analyzed reoccurring and emerging characteristics of various economic markets to become familiar with ongoing and developing business trends

Creative Writing Club

Co-Editor/ Co-Author

University Park, PA
Aug 2017 – May 2018

- Worked alongside 10 other students to edit, develop and produce chapters for an unabridged fiction novel
- Contributed to bi-weekly storyboard development sessions to organize content, direct plot and expound on character motivation
- Advanced talking points and collaborated with other group members to ensure that the chapters followed a cohesive structure

Political Science Society

Speaker and Moderator

Erie, PA
Jan 2017 – May 2017

- Organized and hosted Harborecreek candidate forums on campus, led voter registration drives and hosted a series of debates between College Democrats and Republicans in the opening months of Donald Trump's presidency
- Improved members' mastery of language, rhetoric and communication by devoting time to mastering rhetorical strategies
- Streamlined, kept time and developed questions for campus political forums and debates

Behrend Beacon

Staff Writer

Erie, PA
Aug 2016 – May 2017

- Researched, analyzed and gathered large pieces of information to condense into concise news stories
- Developed a greater understanding of grammar, syntax, target audience and AP style through study and tangible practice
- Strove to accurately and fully cover the activities of students, faculty and administration at Penn State Behrend

Student Government Association

General Assembly Representative

Erie, PA
Aug 2016 – May 2017

- Negotiated and explored ways to further improve the quality of student life on campus by reviewing policies, gathering student input to advocate for the most beneficial amendments in front of a variety of SGA committees
- Participated in policy discussions concerning ethical issues such as cigarette use on campus

HONORS, SKILLS, & INTERESTS

Honors: The President's Freshman Award, Behrend Honors Certificate and Schreyer's Honors College Acceptance

Skills: Proficient in Microsoft Office products (Excel, PowerPoint and Word), Adobe Video Editing, Lotus Notes and AP Style

Interests: Reading (History and Politics), Writing, Athletics, Podcasts and Classic Rock Music