NORTH CENTRAL WEST VIRGINIA ECONOMIC OUTLOOK 2023-2027

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Executive Summary

North Central West Virginia has been one of a few economic regions in state to record steady economic growth over the past decade, but the area experienced notable ups-and-downs over the past few years. The region experienced significant job losses and a nearly equal-sized recovery in payrolls during the COVID-19 pandemic, while also seeing the loss of a major manufacturer in Mylan. This report presents a detailed discussion of North Central West Virginia's economy along with a forecast of regional conditions. Several key facts behind the recent economic performance of North Central West Virginia are as follows:

- North Central West Virginia managed to add 9,000 jobs between 2010 and 2019, easily outperforming the state's overall employment performance during this period.
- The region's recovery from the COVID-19 recession has lagged slightly behind that of the state. Overall, regional payroll employment is at nearly 99 percent of its pre-pandemic level.
- Among the region's four counties, only Preston County has reached pre-pandemic levels of employment but Monongalia County trails this mark by a very small margin. Marion County has had the weakest recovery overall.
- Natural gas output in the region has grown rapidly over the past several years and should continue to another healthy increase in withdrawals during 2022.
- Regional coal production has trended lower over the past several years and will decline during the outlook period as domestic steam coal demand weakens.
- Unemployment in the region has fallen rapidly after spiking to nearly 14 percent during the COVID-19 recession, hitting a record low of 2.8 percent in mid-2022.
- Labor force participation is higher in the area compared to the balance of West Virginia. While the region does lag the overall national average, workforce participation for several age groups is well above average.

- Per capita personal income growth in North Central WV has lagged state and national averages since 2013. Harrison and Monongalia counties rank among the top seven in terms of per capita income levels.
- Regional demographic trends are also favorable. The number of residents in the area has increased by 25,000 since 2000. The area's population is younger and more highly educated versus statewide norms.

Our forecast calls for North Central to continue its recovery from the COVID-19 recession. However, the region will see increased uncertainty over the next year or so due to broader macroeconomic conditions. Growth will surpass state and national averages over the outlook period. Key aspects of our forecast are as follows:

- We expect employment to grow at an annual rate of 0.6 percent per year in North Central WV. This rate is higher than expected growth for West Virginia overall (0.3 percent) and the national rate of 0.4 percent.
- Monongalia County will likely see the fastest rate of job growth in the region, especially between 2023 and 2025. Harrison and Marion counties are also expected to grow faster than the statewide average.
- Services sectors most affected by the pandemic will enjoy the fastest rates of job growth as a group. The region's healthcare industry will remain a key foundation of growth, led by WVU Medicine.
- However, manufacturing is expected to grow at the fastest rate during the outlook. Recent development announcements suggest the jobs lost in the sector by Mylan's departure could be recovered by 2024.
- Unemployment is expected to remain low in coming years and should remain appreciably lower than the statewide average throughout the outlook period.
- Real per capita personal income is expected to increase at an annual average rate of more than 1.7 percent between 2022 and 2027, roughly on par with statewide and national growth.
- The region's population is expected to decline slightly over the forecast horizon, though Monongalia County will record population gains.

Recent Economic Performance

North Central West Virginia¹ has been one of the state's healthiest economic regions over the long term. Over the past few years, the four-county area has had to deal with not only the economic fallout caused by the COVID-19 pandemic, but also the loss of the state's only pharmaceuticals manufacturing facility following the closure of Mylan's plant in Morgantown in early-2022.

While its relatively diverse economic base can typically buffer it from major macroeconomic shocks, or at least alleviate their overall impacts, the magnitude of the

COVID-19 recession was so substantial and encompassing that it caused the North Central region to suffer its sharpest decline in economic activity on record. Overall, total regional payrolls plunged by roughly 18,000 between February and April 2020.

The region's recovery has lagged the statewide average over the past two years or so, but again the Mylan plant closure was a significant contributing factor to this as the facility employed nearly 1,400 people. The emergence of the Delta ad Omicron variants at different points in 2021 also impeded the area's recovery pace, as rising infections and hospitalizations placed significant strain directly on the area's healthcare sector and helped to exacerbate labor shortages across several sectors as workers were infected or guarantined due to close contact exposure to the virus. Despite these hurdles, area employers have added 17,000 jobs over the course of the recovery through late-summer 2022, putting the region's total employment at nearly 99 percent of its prepandemic level.

PERFORMANCE BY COUNTY Monongalia County represents the North Central region's primary economic engine. To that point, West Virginia University is the linchpin of the county's economy thanks in part to the presence of 30 thousand students, faculty, and staff on the Morgantown campus. WVU has generated growth opportunities for the region's economy thanks to numerous new

construction and renovation projects across the university's three campuses, not to mention the creation of spillover effects created by on-campus research and outreach activities by faculty and staff.

WVU Medicine's expanding campus at JW Ruby Memorial Hospital, and via its network growth throughout the state, has bolstered the region's economy, particularly with the recent opening of the state-of-the-art children's hospital that adds more than 150 pediatric beds and large numbers of new medical staff to operate the facility. Moreover, the

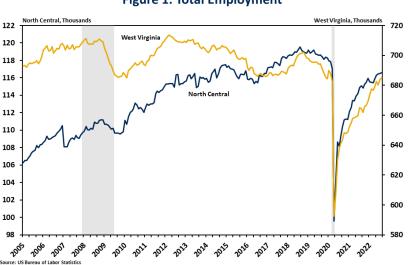
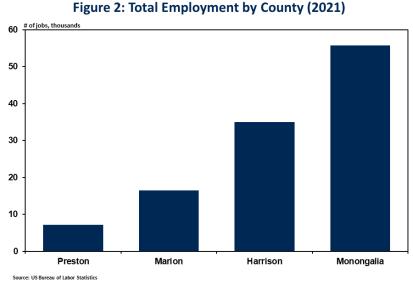


Figure 1: Total Employment



¹ For the purposes of this report, North-Central West Virginia consists of Harrison, Marion, Monongalia and Preston counties.

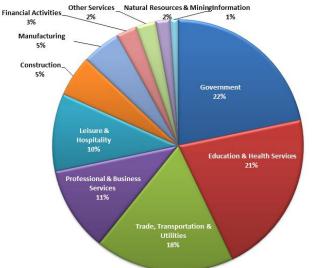


Figure 3: North Central Employment Distribution by Sector

Source: US Bureau of Labor Statistics; 2021 data.

new children's hospital has created opportunities for pediatric research as well as providing specialty pediatric care services to West Virginia residents that was only available at major hospitals in neighboring states.

Aside from the much-discussed economic fallout and volatility caused by the pandemic, Viatris' closure of the Mylan oral dose manufacturing facility in Morgantown has also had a major negative impact on the county's performance over the past year or so. Even though the plant was ultimately shuttered in early-2022, the facility had endured a succession of setbacks over the previous several years, e.g., several large-scale layoff events, restructuring of IT operations and multiple violations assessed by the FDA. In all, the plant's payroll levels had declined from nearly 2,000 in the mid- to late-2010s down to zero in early-2022 when the facility closed at the beginning of this year. On a positive note, the plant's ownership was shifted over to WVU and new companies have announced their intentions to lease portions of the facility for their own operations.

Even with all the turmoil caused by the pandemic and the negative shock caused by Mylan's closure, Monongalia County has shown significant resilience over the past two years and has managed to recover at an above average rate over the past two years or so. Indeed, after payrolls in the county fell by 9,000 during the COVID-19 recession, employment has bounced back to the point that it is only a few tenths of one percentage point away from reaching pre-pandemic levels.

Although Monongalia County experienced the largest absolute number of job losses during the COVID-19 recession, Harrison County has endured the most economic volatility over the past several years, including a period prior to the pandemic. For example, construction activity on several natural pipeline projects in the surrounding region (Mountain Valley, Atlantic Coast, Goff, and Mountaineer Xpress) added thousands of construction and engineering services jobs between 2017 and 2019. Of course, these jobs have vanished from employment data as the projects have been completed or delayed/canceled, as is the case with the Mountain Valley and Atlantic Coast pipelines.

In terms of the county's losses during the COVID-19

recession, Harrison County payrolls plunged by nearly 5,000 during the initial phase of the pandemic. In the subsequent two years or so, employment in the county has rebounded by more than 4,000 as of the second quarter of 2022. Overall, employment has reached approximately 98.6 percent of its pre-pandemic level, lagging the statewide pandemic recovery by a small margin. Even as the lingering effects of the pandemic weighed on activity for several service-providing sectors, other sectors buoyed Harrison County's economy during the pandemic. Indeed, regional aerospace manufacturing and service operations have expanded at the North Central WV Airport, including recent moves by the airport to add new commercial flight destinations for travelers and the decision by Mitsubishi Heavy Industries to add hangar space. Furthermore, the continued build-out of Charles Pointe and White Oaks, plus further personnel additions at the FBI's Criminal Justice Information Services (CJIS) facility have bolstered the area's economy.

Marion County's economy suffered the largest percentage declines in employment during the recession, as employers eliminated 20 percent (or ~3,000) jobs between February and April 2020. Unfortunately, these losses came on the heels of a protracted downward trend in employment within the county that stretched back to the early 2010s. Furthermore, Marion County has seen the weakest rebound in economic activity to date from the COVID-19 recession, as employment has increased to just over 95 percent of its pre-pandemic level. On a positive note, the county's economy did receive a shot in the arm with WVU Medicine's decision to purchase Fairmont

Medical Center and subsequent \$110 million renovation of the hospital facilities that was completed during summer 2022. Also, major highway construction projects and several commercial and residential developments along the I-79 corridor have helped to lift activity as well. Finally, Preston County, which is the most rural in the North Central region, has seen employment recover to the point that it is on par with pre-pandemic levels.

PUBLIC SECTOR The public sector is a major feature of North Central West Virginia's economic landscape. In addition to the presence of higher education institutions, namely WVU and Fairmont State University, several major federal installations can be found in the area, including the FBI's CJIS facility, Department of Energy's National Energy Technology Laboratory, Louis A. Johnson VA Medical Center, National Institute for Occupational Safety and Health (NIOSH) and US Bureau of Prisons. The federal arm of the public sector has been especially supportive to regional growth in recent years, due in large part to personnel and program investments at the FBI's facility in recent years.

The COVID-19 pandemic has weighed on public sector payrolls, particularly at the state and local government levels. While the federal government stepped in with significant amounts of assistance via fiscal and monetary policy support mechanisms, state, county, and municipal payrolls are still appreciably below pre-pandemic levels. Even as state coffers are seeing record-setting surpluses and local governments have experienced a strong improvement in fiscal conditions, most of this windfall can be traced back to direct federal assistance, via the CARES Act and ARPA in 2020 and 2021.

Many state and local governments have had to focus on meeting the expenditure guidelines of programs created because of these federal policies spend the funds before they expire. Furthermore, given the rapid increase in interest rates and persistent inflationary pressures affecting the broader economy, many state and local government-related organizations, including WVU, remain under hiring freezes or limited hiring policies to minimize future operational budgets and raise the risk of potential credit rating reductions.

HEALTHCARE Healthcare services represents a major linchpin to the North Central Region's economy. J.W. Ruby Memorial Hospital, the Monongalia Health System, and

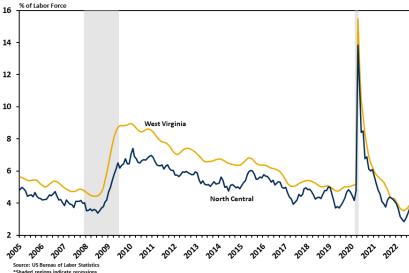
other healthcare facilities employ nearly 15,000 people in Monongalia County alone. Moreover, while WVU Medicine has expanded its footprint statewide via mergers and management agreement ventures with other healthcare providers across the state, it has also aggressively expanded operations more locally, including the new 114-bed Southeast tower at Ruby Memorial and the Outpatient Center at University Town Centre.

In addition, the WVU Medicine Children's Hospital was recently opened and will provide the region and state with a new point of strength thanks to not only the addition of new pediatric physicians and support personnel, but also pediatric health researchers. This will enable the facility to foster new pediatric health care research capabilities and provide core and advanced pediatric care to West Virginia residents that was once only available in larger metro areas outside of the state, such as Cleveland, Pittsburgh, Baltimore, or Charlotte.

CONSTRUCTION North Central West Virginia has been home to a significant amount of construction activity in recent years. Prior to the pandemic, the massive levels of development in midstream natural gas infrastructure accounted for a sizable chunk of the sector's activity and even boosted overall employment in the region by an appreciable amount. Indeed, projects such as the Mountaineer Xpress, Goff Connector, Hammerhead, and other pipeline projects have significantly increased the natural gas throughput capacity by several billions of cubic feet per day. As mentioned above, the Atlantic Coast Pipeline was canceled in mid-2020 due to significant cost overruns and fears that additional litigation and regulatory review would delay the product for at least several more years. While the MVP project remains delayed due to similar reasons, the possibility of a future restart remains possible due to a political compromise between Senator Joe Manchin and other Democratic lawmakers to pass the Inflation Reduction Act.

Commercial, residential, and public infrastructure projects have also been a key driver of construction activity in the four-county area over the past few years. The build-up in developments such as University Town Centre, WestRidge, Charles Pointe, White Oaks, and others along the I-79/I-68 corridor have provided major boosts to industrial, commercial, and even residential construction activity. At the same time, major highway infrastructure developments have emerged as a key source of activity for





the sector as well, including projects such as the I-79 widening through Marion County and the Mileground Rd expansion in Monongalia County. In addition, construction of Mountain Top Beverage's production facility at the Morgantown Industrial Park could foster additional infrastructure investment in the region, specifically a new exit ramp on I-79 between Westover and Star City. The new exit would enable suppliers and other logistics operations to directly access the park rather than use more circuitous routes through municipalities.

ENERGY The natural resources and mining sector accounts for roughly 2 percent of regional payrolls but cyclical and structural changes in energy production have had substantial impacts on the North Central region's economy. Harrison County has consistently ranked among the state's top five natural gasproducing counties for many years, but gas drilling 3.6 and activity have increased measurably in 3.4 Monongalia and Marion counties during the past five years or so. Preliminary data through the first 3.2 half of 2022 indicate withdrawal volumes in these 3.0 three counties increased nearly 20 percent overall, with 190 billion cubic feet of natural gas 2.8 withdrawn from horizontally drilled wells during 2.6 the first six months of this year.

In addition to the increased proliferation of natural gas production, the North Central region still contains a sizable presence of coal mine activity. Unfortunately, the four-county area's coal output has experienced a large downward trend for much of the last decade or so. After reaching nearly 16 million tons in that year, tonnage fell to 8.4 million tons in 2021. Steam coal shipments from area mines have fallen off rapidly in recent years as electricity generation from coalfired power plants has waned in response to heightening competition from natural gas and renewables. Furthermore, the Blacksville No 2 mine in Monongalia County ended operations in late-summer 2021. As a result, coal output through the first half of 2022 is down by more than one-third compared to the same period in 2021 and is on pace to fall to the historically low levels of mined tonnage seen during 2020.

UNEMPLOYMENT North Central West Virginia consistently has an unemployment rate that comes in well below the statewide average. Prior to the pandemic, the four-county region's jobless rate had been below five percent since late-2016. The regional unemployment rate did surge to nearly 14 percent during the COVID-19 recession but was cut by more than half by the end of 2020 as the economic recovery took hold. Layoffs associated with the Mylan closure and a surge in COVID-19 infections and hospitalizations due to the emergence of the Delta variant also caused an upturn in unemployment rate during the last several months of 2021. Since then, however, reflecting the same general trend of extreme labor market tightness that has occurred nationally and within parts of West Virginia, the regional jobless rate reached a new all-time low of 2.8 percent in mid-2022. The rate has edged higher in recent months, but

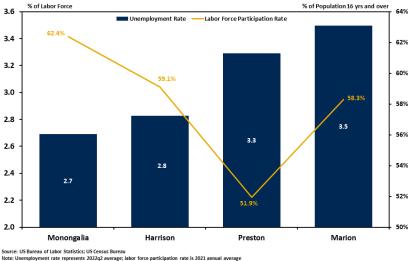


Figure 5: Unemployment and Labor Force Participation by County



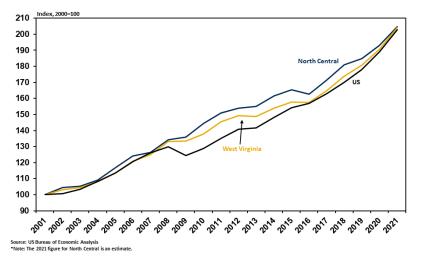
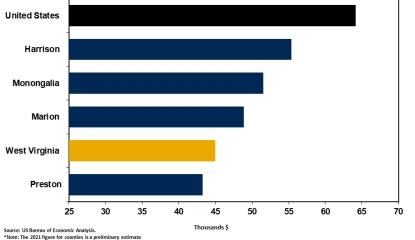


Figure 7: Per Capita Personal Income by Area (2021)



remains lower than at any point ever recorded other than mid-2008.

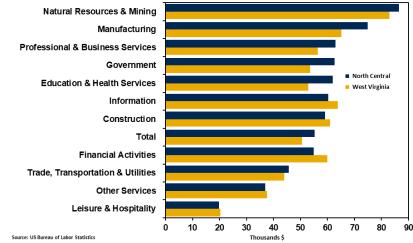
Among the four counties, Monongalia possesses the lowest rate in the region at 2.7 percent as of the second quarter of 2022, followed by Harrison County at 2.9 percent. Marion County typically has the region's highest rate of unemployment, and while that has remained true for as of the second quarter of 2022, it is also incredibly low at just 3.5 percent. Preliminary data for the third guarter of 2022 suggest the area has experienced an increase in the jobless rate, as has been the case both statewide and nationally; however, barring any changes, the overall unexpected area's unemployment rate will hold in the low- to mid- 3percent range.

Workforce participation tends to exceed statewide averages in North Central West Virginia. Prior to the pandemic, the four-county area's labor force increased by more than 7,000 between mid-2016 and late-2019-compared to significant declines for the balance of the state. In early-2020, the region experienced a massive loss of nearly 10,000 residents leaving the labor force during the early days of the pandemic. Also, the area saw notable periods of little to no growth in the labor force that generally coincided with surges in COVID-19 infections and hospitalizations. Despite these slow periods of labor force growth, however, the North Central's workforce recently surpassed its prepandemic level.

Among the region's four counties, Monongalia County is one of only a few counties in the entire state to have a workforce participation rate that surpasses the national average, albeit by the slightest of margins. Preston County has the region's lowest participation rate at roughly 52 percent. However, among the prime working age (25-54 yrs), counties in the region compare well to the national average with roughly 80 percent of residents in this cohort working or looking for work.

INCOME Per capita personal income (not adjusted for inflation) in the North Central West Virginia Region was estimated at \$51,100 during calendar year 2021. This marked a 6.1 percent rate of growth in average income levels from 2020 and a 36





percent increase over the past decade. Regional income growth during 2020 and 2021 were driven to a great extent by transfer payments as the federal government provided trillions in dollars of pandemic relief to US households via the CARES Act and ARPA. Wage growth did accelerate noticeably in 2021 as labor markets tightened within the region as well as nationally.

Harrison County had the highest per capita income of all four counties in the region at approximately \$54,400 in 2021, followed by Monongalia, where residents earned more than \$51,500 on average. The region's diverse mix of high-wage industries does make income growth somewhat less volatile, but per capita income is weighed on to some extent by the presence of tens of thousands of college students at WVU, Fairmont State and smaller institutions.

POPULATION Although many economic regions in West Virginia have suffered sustained population losses, North Central West Virginia has tended to see gains in the number of residents, adding roughly 25,000 people overall since 2000. The region's population has declined slightly over the past several years, due in part to falling international student enrollment at higher education institutions such as WVU. Furthermore, the COVID-19 pandemic did generate a measurable increase in deaths across the state in 2020 and 2021, including the fourcounty region. Finally, though not as pronounced as some of West Virginia's economic regions, the opioid epidemic has affected the North Central region as well, generating an uptick in deaths and health problems among certain age groups.

DEMOGRAPHICS Many of North Central West Virginia's underlying demographics offer a noticeable contrast to the rest of the state. However, many of these differences are driven in large part by Monongalia County, since the region's other three counties resemble the state by most demographic measures. For example, while the region's overall median age is 38.5 years, the presence of West Virginia University causes nearly 40 percent of Monongalia County's population to come in under the age of 25 and make the area's overall age distribution appear demonstrably younger.

Finally, rates of educational attainment for the region are noticeably higher versus other parts of the state as nearly 30 percent of residents aged 25 and older possess a college degree, more than 8 percentage points above the statewide figure. Unsurprisingly, Monongalia County contains the state's highest concentration of college graduates and is the only county in the state to exceed the national average, as more than 41 percent of residents 25 years and older hold bachelor's degree or higher.

	North Central	West Virginia	United States
Total Population (2021)	261,904	1,782,959	331,893,745
% Population Under 18 (2021)	18.6%	20.1%	22.2%
% Population 65 Years + (2021)	17.4%	20.7%	16.8%
Population with Less than High School Diploma (2020, 25 yrs. +)	9.7%	12.4%	11.5%
Population with High School Diploma, No College (2020, 25 yrs. +)	36.4%	40.0%	26.7%
Population with Some College (2020, 25 yrs. +)	24.1%	26.3%	28.9%
Population with Bachelor's Degree or Higher (2020, 25 γrs.+)	29.8%	21.3%	32.9%
Median Age (2021)	38.5	42.8	38.8
Mean Household Income (2020)	\$73,919	\$65,332	\$91,547
Average Household Size (2020)	2.36	2.40	2.60
Labor Force Participation Rate (2020)*	59.4%	54.7%	61.7%

Figure 9: Summary Population Profiles

Source: US Census Bureau

*Note: WV and US figures are from 2021.

Economic Outlook

Expectations for the West Virginia and US economy during the 2022-2027 forecast horizon will have a significant impact on the North Central economy's performance going forward.² Given the likelihood of future Federal Reserve interest rate hikes to cool inflationary pressures, and the potential of these rate increases to precipitate an economic slowdown or even an outright recession within the next year, the regional outlook is subject to significant uncertainty. In addition, the ongoing volatility in energy markets caused Russia's invasion of Ukraine creates additional risk (both upside and downside) to the region's near-term economic performance.

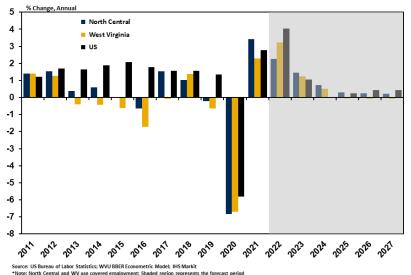


Figure 10: Employment Growth Forecast

COUNTY OUTLOOK We anticipate total employment in the four-county region will increase at an average annual rate of nearly 0.6 percent during the five-year outlook period. Monongalia County is expected to lead the region overall in terms of job growth during the outlook period, easily outpacing both state and national averages by more than a factor of two. Manufacturing, leisure and hospitality, business services and healthcare will be the major sectors leading way in growth going forward. The construction sector is also expected to grow during the outlook period, but most of these gains are expected to occur during the early- to middleportion of the forecast horizon, as work on the Longview Power natural gas plant, UNDIBO insulin manufacturing and testing facility, and other major commercial and industrial developments break ground and work toward completion. Other developments such as Mountain Top Beverage (and the greater Morgantown Industrial Park) and WestRidge are also expected to be built out over this period.

While the decision by Viatris to close the Mylan oral dose manufacturing plant was expected to produce a permanently negative effect to Mon County's growth

> going forward, recent evidence suggests those impacts may be overcome. For example, Hope Gas has entered into a leasing agreement to house some of its newly formed back-office operations and IT services personnel at the Mylan facility. In addition. South Korean pharmaceutical manufacturer UNDIBO Inc. has announced the construction of a large-scale insulin production and testing facility at the WVU Research Park in Morgantown that will begin construction by early to mid-2023. While the direct employment impact is not completely known at this time, reported estimates suggest the plant could eventually produce more than 1,000 new jobs on-site, contingent upon securing approvals with the FDA

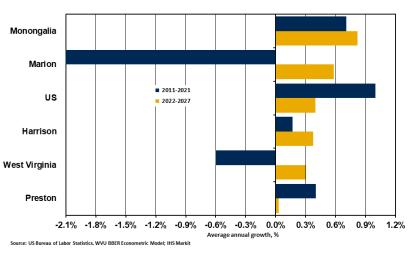


Figure 11: Employment Growth Forecast by Area

² All forecast estimates presented herein are derived from the West Virginia University Bureau of Business & Economic Research Econometric Model unless otherwise noted.

for testing trials and manufacturing of low-cost insulin products.

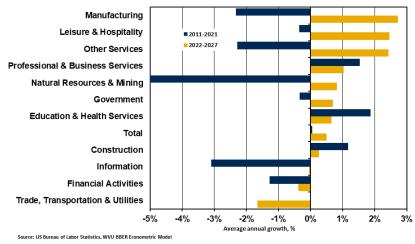
Harrison County is expected to grow faster than the statewide average during the outlook period, achieving average annual growth of nearly 0.4 percent. Much like Mon County, Harrison County will see its large base of leisure and hospitality businesses located along the I-79 corridor benefit from further waning of the COVID-19 pandemic. In addition, anticipated growth in aerospace manufacturing and service activity along with the stability provided by major federal installations located in the area will also buoy the county going forward. Volatility in the energy sector could affect growth in both directions during the next five

years, though we anticipate positive contributions from expanding natural gas production, exploration, and development throughout the North Central and northwestern portions of the state.

Marion County will likely see payrolls increase by 0.6 percent annually during the outlook period, which will surpass both state and national average growth rates over the next five years. The continued rebound from the COVID-19 recession will drive most of this measured improvement during the forecast horizon, chiefly for the county's leisure and hospitality and other consumer-based services industries along the I-79 corridor in Fairmont. The county does face palpable risks going forward from its exposure to domestic steam coal demand, though most of that risk extends to the long-term outlook beyond the next five years. Preston County is expected to post very little job during the next five years. The county is already on par with its pre-pandemic level of employment and given the county's rural nature, industrial mix and underlying demographic characteristics, the county is expected to have relatively limited potential for growth during the outlook period.

SERVICE SECTORS The manufacturing sector is expected to lead overall in job growth going forward, thanks in part to the UNDIBO facility coming on-line and growth by companies such as Mountain Top Beverage. However, several private service-providing sectors will combine to account for most of the overall growth in North Central economic activity over the next five years. For sectors such as leisure and hospitality, most of this growth will reflect the ongoing process of recovery from the COVID-19

Figure 12: North Central Employment Growth Forecast by Sector



pandemic as well as the easing of tight labor markets that have caused a protracted level of high job openings at restaurants and other businesses in the sector. Professional and business services is also expected to enjoy rapid job growth of roughly 1 percent annually during the outlook period. Some of this growth will reflect increased hiring of contract labor by energy producers, though the extent to which that occurs over the next year or so will be plagued with uncertainty given the geopolitical risks created by Russia's invasion of Ukraine. More importantly, however, the I-79 corridor between Clarksburg and Morgantown has seen significant development opportunities emerge over time with respect to the knowledge economy. These opportunities have been fostered by WVU as well as private sector businesses along the corridor that engage in defense and nondefense federal contracting and are only expected to increase due to some provisions in federal legislation such as the Inflation Reduction Act and the Infrastructure Investment and Jobs Act.

Finally, a nationwide shift to remote work for many tech services jobs combined with the region's competitive level of skilled labor and improving broadband availability should bolster the four-county area's ability to capture a growing share of these workers. The Ascend WV program is an example of a program that will attempt to leverage the low cost of living, natural amenities and other features in areas such as Morgantown (where broadband capacity is also widely available) with a financial incentive for new residents with remote work opportunities moving from larger cities. After growing nearly 2 percent per year over the last decade, the education and healthcare services supersector is expected to register gains at a noticeably slower pace of 0.7 percent annually. Growth will be somewhat slower over the near term as hospitals and other healthcare providers recalibrate their operations further away from COVID-19 pandemic emergency measures and back toward more standard provisions of care. Longer term, WVU Medicine's expanded operational footprint throughout the region via acquiring or co-operating smaller facilities in the region will enable a more expansive provision of care to residents throughout the broader region. In addition, the newly opened children's hospital in Morgantown will only enhance the region's healthcare hub status further and even generate advancements in care and research to a new area of practice.

The North Central Region's trade, transportation and utilities sector is expected to register a loss of 1 to 2 percent annually in payrolls through 2027. The region's newer retail centers should perform well during the outlook period thanks to anticipated population and income gains. For retail more broadly, however, the shift toward online direct-ship or order-and-pickup purchasing activity by consumers accelerated rapidly during the pandemic and is not expected to reverse itself to any significant extent going forward, putting further downward pressure on brick-and-mortar retail employment during the outlook period.

GOVERNMENT Public sector employment in the fourcounty area is expected to grow 0.7 percent per year

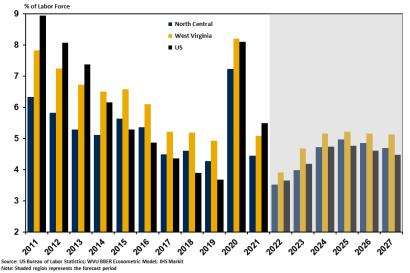
between 2022 and 2027. WVU and other educational institutions should see funding streams stabilize and grow somewhat over the next few years as federal aid has buttressed state government finances significantly since the beginning of the pandemic. The direction of local government payrolls is a little less certain for now, as constitutional amendment proposals appearing on the ballot, namely Amendment 2, could lead to significant changes in the mechanisms by which local governments are funded in West Virginia.

Public infrastructure investments within the region will be appreciable over the next several years. An array of major roadway and other public infrastructure projects have already been approved throughout the I-79/I-68 corridor in Harrison, Marion and Monongalia counties. Not only will these projects create direct economic impacts during the construction phase in the outlook period, but they also create opportunities to ease prior shortcomings in the region's infrastructure that, had they not been addressed, would have placed limits on the North Central economy's growth potential—especially in Monongalia County. Finally, the Infrastructure Investment and Jobs Act and Inflation Reduction Act add a significant increase in baseline federal spending for various 'hard' and 'soft' forms of infrastructure programs over the next decade.

The FBI Criminal Justice Information Services Division in Bridgeport could potentially add more workers depending upon expanded federal mandates on background checks conducted at the facility. Elsewhere, we do not anticipate any major changes for the region's other federal employers, but downside risks are a factor that cannot be ignored as the outcome of the 2022 midterm elections could lead to changes in spending priorities, depending upon which party is able to achieve (or maintain) a lead in one or both chambers of Congress.

UNEMPLOYMENT OUTLOOK Large revisions to historical data in the next benchmark revision as well as any unanticipated changes in the North Central region's labor force participation rate could cause the regional unemployment rate to differ significantly from both its projected level and path. In addition, the path of the US and WV economies over the next year or so will have a significant influence on the trajectory of the unemployment rate. With that said, the forecast calls for





the regional unemployment rate to rise over the next few years, climbing to a peak in the upper four percent range by late-2024.

Monongalia County will maintain the lowest jobless rate among the region's four counties throughout the forecast but should see some upward pressure over the near term as certain sectors of the labor are approaching full employment and rising wages should draw in more entrants to the labor force. Harrison County's unemployment rate will generally track the broader statewide figure during the latter half of the outlook period, hovering in the mid- to upper-5-percent range. Preston and Marion counties will have jobless rates slightly above the statewide average, but both counties will continue to see emerging job opportunities for commuters that work in neighboring Harrison and Monongalia counties via the I-79/I-68 corridor.

INCOME GROWTH The expiration of pandemic-related federal assistance, along with the rapid increase in

inflation, will cause real per capita personal income to decline in 2022. While the impact of inflation is expected to continue to some extent into 2023, interest rate hikes by the Federal Reserve should provide the impetus to slow economic growth enough to weaken these inflationary pressures, allowing real incomes to begin rising once again by mid-2023 or so. Longer term, anticipated job growth in some relatively high-wage sectors, along with rising royalties income from natural gas and an expected rebound in equity markets, should provide enough support such that inflation-adjusted income levels increase more than 1.8 percent annually.

Finally, Harrison, Marion and Preston counties Meters shaded r have a larger share of residents at or above the age of 65, and as a result will see stronger growth in transfer payments and a larger share of income coming from programs such as Social Security and Medicare. However, federal policy remains a risk as substantial growth in federal debt over the last decade or so and recent increases in interest rates have caused some congressional candidates to begin discussing, once again, the possibility of reshaping eligibility requirements to social safety net programs such as Social Security and Medicare to rein in budgetary costs over the long term. **POPULATION OUTLOOK** The region's resident population is expected to shrink slightly during the outlook period, lagging the area's which will lag the rate of growth observed in the most recent decade. Monongalia County will account for virtually all the area's population growth through the five-year outlook period, adding residents at 0.3 percent per year.

Stronger migration flows into the county, and region, are one key mechanism by which local population growth could increase. Programs such as Ascend WV are but one example by which policymakers at the state level can foster in-migration to the area. However, federal immigration policy also matters a great deal for universities, research centers and many businesses in the North Central region. Until deep-seated disagreements over legal and illegal immigration are solved at the federal level, international immigration will not provide the boost to underlying population growth that it once did for the North Central region.

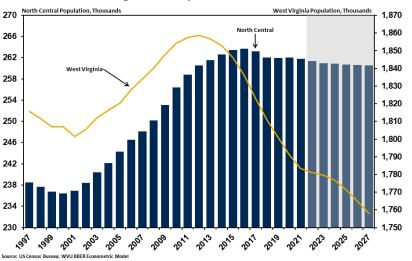


Figure 14: Population Forecast

The region's other three counties are expected to register declines in population going forward, though the losses should be relatively modest in all three as positive migration flows help to offset natural population losses (deaths exceeding births). Harrison does have some upside potential for modest population growth during the outlook period, but any such gains will be driven by development of downstream industries for natural gas as well as continued growth in aerospace industries tied to the regional airport.