



THE STATE OF **Working West Virginia** 2015

Answers & Solutions to West Virginia's
Low Labor Force Participation

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Introduction

This report is the eighth in an annual series that examines the state of West Virginia's economy. While previous editions examined data on employment, income, productivity, job quality and other aspects of the economy as they impact working people, this issue is an in-depth look at one specific economic measure - West Virginia's labor force participation rate.

The labor force participation rate (LFPR) is the measure of people 16 years or older either working or seeking work, expressed as a share of the adult population. Labor force participation is a complementary measure of labor market conditions to the conventional unemployment rate. The LFPR captures the share of the total adult population that is available to work, whereas the unemployment rate captures the share of the labor force that is unable to obtain employment at a given point in time. Labor force participation varies across demographic characteristics such as age, gender, and race, and can be affected by numerous economic characteristics and public policies. A healthy LFPR is a key driver of a society's economic output per capita and overall standard of living in the long run.

Nationally, labor force participation peaked in the early 2000s at 67 percent, and has been falling since. The nation's current rate of 62.9 percent is its lowest since 1977.¹ Historically, West Virginia has had the lowest labor force participation rate in the United States. West Virginia has ranked last among the 50 states every year since 1976,² and the state's labor force participation rate has never lagged the nation by fewer than nine percentage points over this period. In 2014, West Virginia's labor force participation rate stood at 53 percent, compared to the national rate of 63 percent.

West Virginia shares its low labor force participation rate with much of the Appalachian region. For the 2008-2012 time period, the prime-age (ages 25-54) labor force participation rate in the Appalachian region was 74 percent, compared to the national rate of 78 percent. Only 35 of the 420 Appalachian-region counties had a prime age labor force participation rate above the national rate, while 46 counties had a prime-age rate below 60 percent. Labor force participation rates in the Appalachian region are lowest in rural areas and in Central Appalachia, which contains much of West Virginia.³

A number of factors have contributed to the general decline in labor force participation nationally. Consider long-term demographic trends: Aaronson (2012) estimates that just under half of the decline in labor force participation since 1999 is due to shifting demographics, particularly the overall aging population and the retirement of the baby-boom generation. These trends are projected to persist beyond the next decade as the baby-boom generation continues to retire.⁴ Men and women over the age of 65 are much less likely to work compared to men and women aged 25-64, and naturally labor force participation declines as the population ages.

The 2007-2009 recession and weak recovery have also contributed to the falling labor force participation rate. An ongoing weak job market can discourage unemployed men and women who cannot find work, driving them to quit looking for work altogether and thereby exit the labor force – termed the discouraged worker phenomenon. The labor force participation rate for prime-age workers fell by 1.5 percentage points between 2007 and 2012, which has been attributed primarily to this phenomenon.⁵

A weak economy can also affect labor force participation by preventing workers from ever joining the labor force. Nichols and Linder (2013) estimate that the drop in labor force participation during and after the recent recession has also been driven by a decline in labor force entry rates.⁶

Returning specifically to West Virginia, a few studies have focused on uncovering the reasons for West Virginia's, and its Appalachian neighbor's, low levels of labor force participation. In examining Kentucky data, Berger (1989) found that the primary contributor to Kentucky experiencing employment-to-population ratios – which are related to labor force participation rates – below the national average was relatively low levels of educational attainment in Kentucky in comparison to other states. Other factors included differences in industry structure and an overall weak economy.⁷

A similar analysis yielded different results for West Virginia. Dorsey (1991) concluded that West Virginia's low rate of labor force participation cannot be attributed to economic or demographic factors, and instead is probably explained by its Appalachian culture, a preference for working informally outside of traditional markets, and high levels of federal disability benefits.⁸ Using more sophisticated econometric methods compared to Dorsey, Isserman and Rephann (1993) found no statistical evidence of an Appalachian cultural effect. They further concluded that the county-level labor force participation rates in Appalachia were no different from the U.S. average when controlling for demographic and economic conditions.⁹

This study has three components. Section One compares trends in labor force participation in West Virginia and in the nation and examines how labor force participation in West Virginia varies by demographic, socioeconomic, and health factors. Section Two provides a more in-depth evaluation of the determinants of labor force participation and their contribution to the deviation of West Virginia's LFPR rate from the national average. Section Three provides various policy solutions to improve labor force participation.

Key Findings

- Labor force participation in West Virginia, and in the nation, rose substantially over the latter half of the 20th century, but has declined since 2000.
- Despite broad movements in labor force participation over the last six decades, labor force participation in West Virginia has lagged the nation by a consistent margin.
- Labor force participation varies widely across West Virginia's 55 counties and tends to be lowest in the southern part of the state.
- Labor force participation in West Virginia lags the nation across all age groups. Labor force participation among prime-age workers (ages 25-54) in West Virginia is also the lowest among the 50 states, indicating that the fact that West Virginia has an older population cannot solely explain the state's labor force participation deficit.
- Of the 700,000 West Virginians who are not in the labor force, only 39 percent are age 65 or older. In contrast, 15 percent of labor force non-participants are between 15 and 24 and 27 percent are of prime working age. Policies that target men or women in these age groups have the most potential to improve labor force participation.
- Data suggest that labor force participation increases rapidly with higher levels of education. This finding, coupled with low rates of educational attainment in the state, suggests that effective efforts to improve high school completion and the attainment of a college education would likely be fruitful in enhancing labor force participation.
- Data for both the nation and West Virginia suggest that health is an important determinant of labor force participation. This finding, coupled with the fact that West Virginia suffers from poor health outcomes, suggests that effective policies to improve access to health care and encourage a healthy lifestyle would improve labor force participation.
- Men and women with a disability that limits or prevents them from working comprise 44 percent of those not in the labor force (prime age). This suggests that effective efforts to improve disability outcomes and to promote efforts to match the disabled with more physically-appropriate work might substantially improve labor force participation.
- A statistical analysis shows that the factors that play the most important role in explaining why West Virginia has a lower labor force participation rate than the U.S. average are that the state's population is older, has completed less formal education and is in relatively poor health.
- Policies that could improve West Virginia's low levels of labor force participation include enacting a state earned income tax credit, enhancing childcare access, and increasing access to higher education.

Section One

Statistical Overview

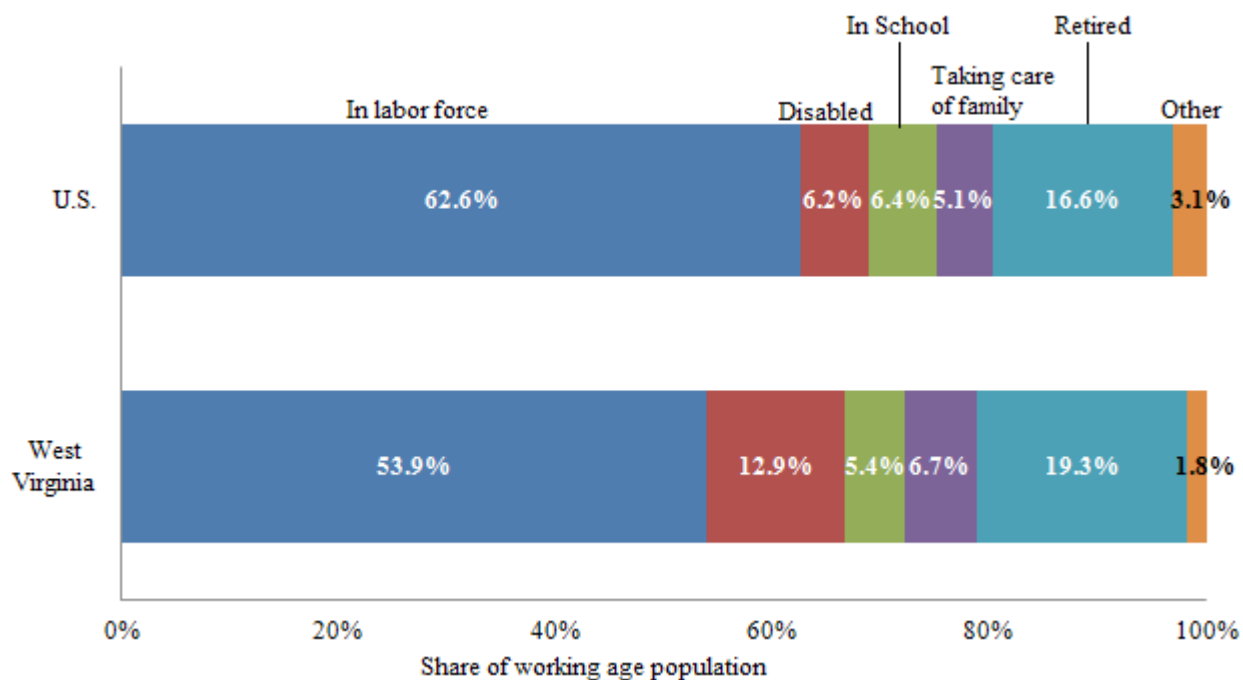
This section includes a descriptive analysis of West Virginia's labor force participation rate over time and by demographic and socioeconomic characteristics, with a focus on the prime-age working population (defined throughout as those men and women between the ages of 24 to 55).

What Are West Virginians Doing Who Aren't in the Labor Force?

There are about 687,000 West Virginians who are not in the labor force. These are people who are not working, but are also not considered unemployed, because they are not looking for work. About 288,000 of these people in West Virginia are not working because they are retired, while another 81,000 are in school and not looking for work. Close to 100,000 West Virginians are not in the labor force because they are taking care of their homes and families, such as stay-at-home parents or those caring for aging relatives. Approximately 192,000 West Virginians are unable to work, either due to disability or illness. And there are about 27,000 people in West Virginia who are not in the labor force for some other reason, which includes those who don't want to work and those who are discouraged workers (**Figure 1**).

Compared nationally, more than twice as many West Virginians are not in the labor force due to illness or disability than the national average. More West Virginians are retired than the national average as well, 19.3 percent compared to 16.6 percent. Going to school keeps fewer West Virginians out of the labor force than the national average, but more West Virginians are staying home to care for their family (**Figure 1**). But overall, as a share of the working-age population, fewer West Virginians are in the labor force than any other state.

Figure 1
Share of Working-Age Population by Reason for Not Participating in Labor Force, West Virginia and U.S., 2013-2014



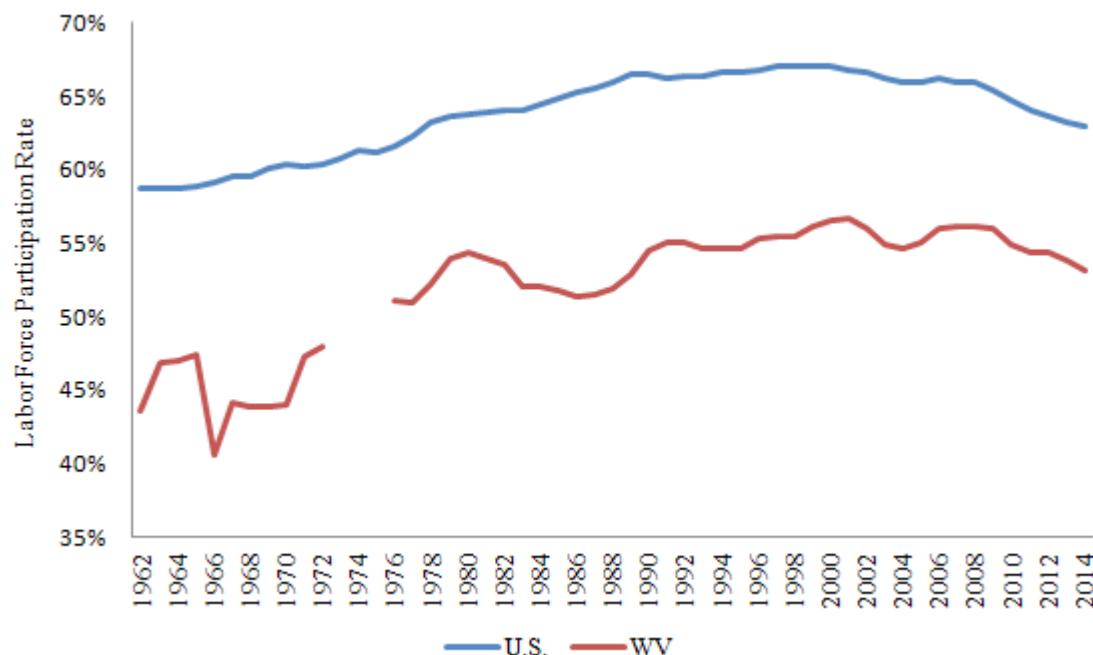
Source: U.S. Census Bureau, Current Population Survey microdata.

Historic Labor Force Participation

The national LFPR increased significantly over the latter half of the 20th century. This evolution was due to more women entered the labor force and demographic factors surrounding the baby boom. In particular, the LFPR grew from 56 percent in 1962 to 65 percent in 1990, nearly a third of a percentage point per year (**Figure 2**). The growth in labor force participation slowed during the 1990s, with the national rate peaking in 2000 at over 66 percent. In contrast, however, the national LFPR has sharply fallen since 2000: the figure fell below 65 percent before the 2007-2009 recession and has continued to fall since the end of the recession, reaching 62 percent in 2015. Both a weak economic recovery¹⁰ and the retirement of the baby boomers¹¹ have contributed to this decline.

Figure 2

Labor Force Participation, West Virginia and U.S.



Source: U.S. Census Bureau, Local Area Unemployment Statistics and Current Population Survey data and microdata.

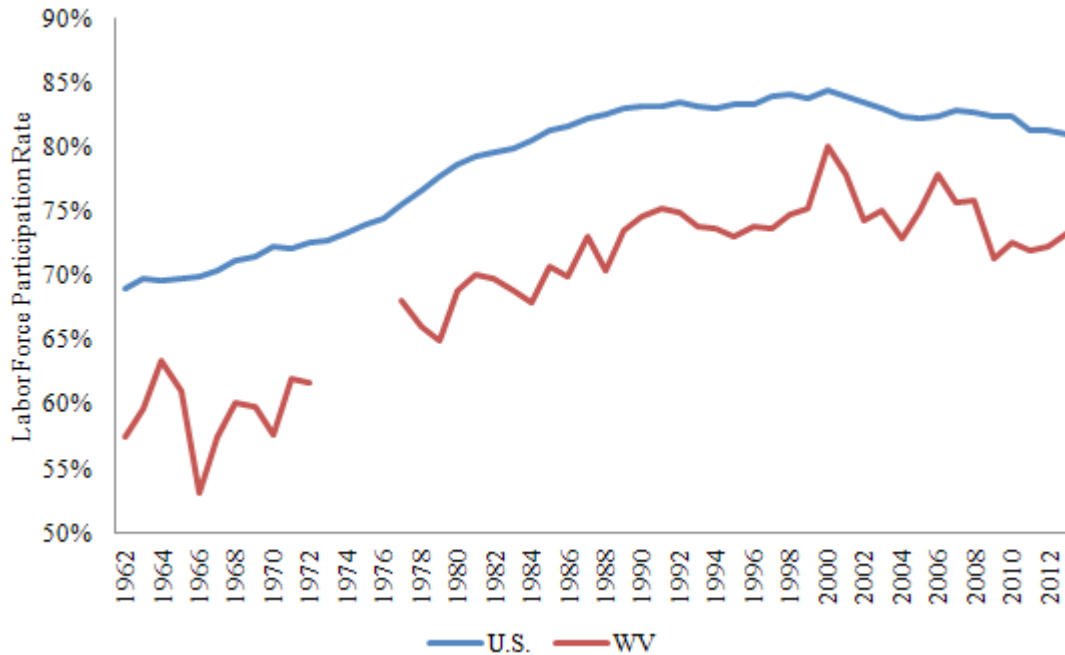
In a similar fashion, West Virginia's LFPR grew substantially for most of the second half of the 20th century, from a low of under 41 percent in 1966 to a high of just under 58 percent in 2001, an average increase of nearly half a percentage point each year. In conjunction with the U.S. rate, West Virginia's LFPR has fallen since 2000, declining to 53 percent in 2014.

Labor force participation is understandably higher for the prime-age population. People in this age group are less likely to be affected by retirements and school enrollment, which tends to lower labor force participation for older and younger workers, respectively. Focusing on the prime-age population measures labor force participation without the significant influence of age-related factors.

The prime-age (ages 25-54) LFPR in the United States was 81 percent in 2013, substantially higher than the overall figure of 62 percent (**Figure 3**). Historically, the prime-age LFPR has largely followed the trend for overall LFPR, with participation growth beginning in the 1960s, leveling off in the 1990s, and beginning to decline in the mid-2000s. Consistent with the trends in overall LFPR, the prime-age LFPR for West Virginia is consistently below the corresponding national figure. In 2013, the prime-age LFPR was 73 percent in West Virginia, roughly eight percentage points below the national figure.

Figure 3

Labor Force Participation, Prime Age, West Virginia and U.S.



Source: U.S. Census Bureau Current Population microdata.

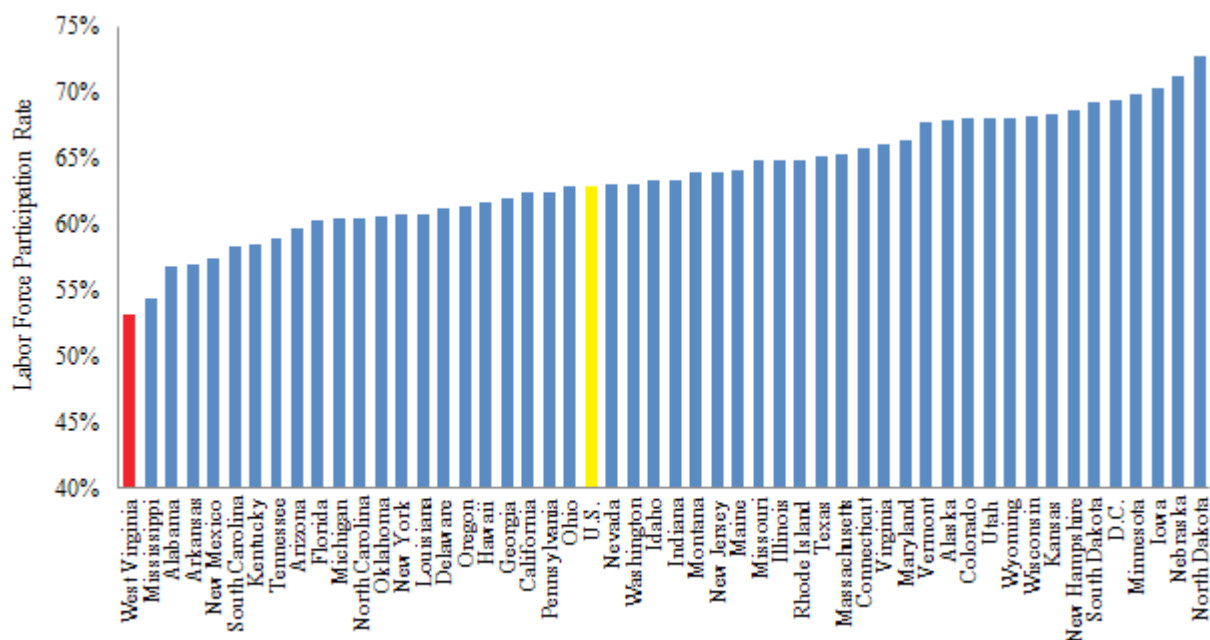
Geographical Comparisons

50-State Comparison

West Virginia's 2014 overall LFPR of 53.2 percent is the lowest among the 50 states and is more than one percentage point lower than the next lowest state, Mississippi. Further, West Virginia is one of only nine states with a rate below 60 percent (**Figure 4**). West Virginia's LFPR is substantially lower than any of its Appalachian neighbors. Kentucky is the closest to West Virginia at 58.5 percent, followed by Pennsylvania at 62.5 percent and Ohio at 62.9 percent. Virginia's LFPR is above the national average at 66.1 percent, and Maryland is the highest of West Virginia's neighbor's at 66.4 percent.

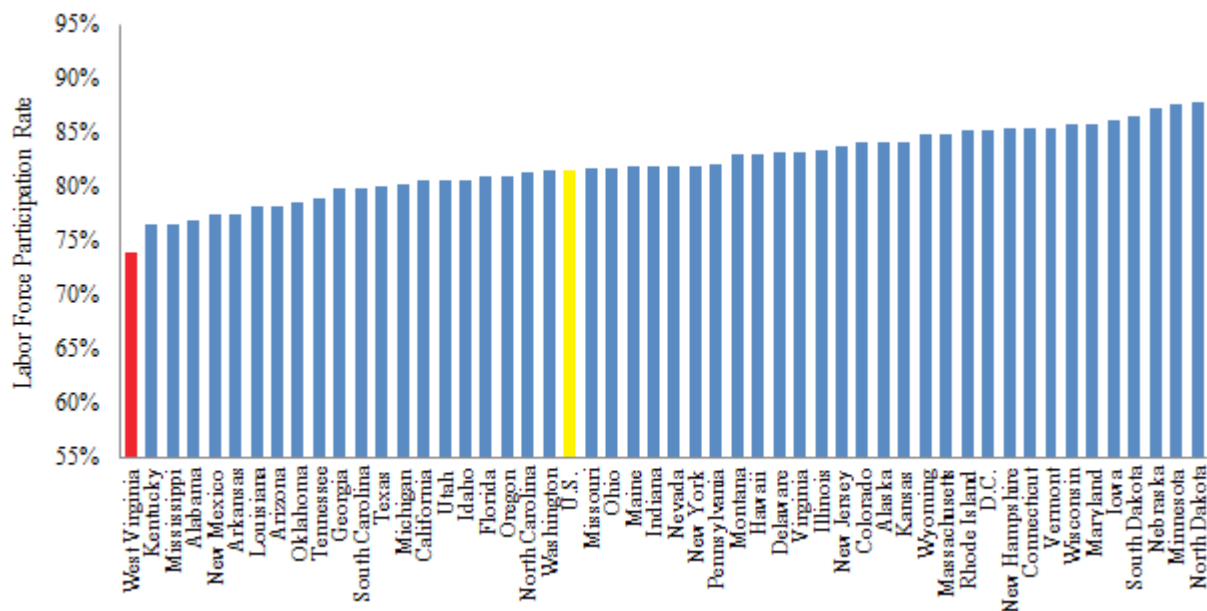
West Virginia also exhibits the lowest LFPR for its prime-age population among the 50 states, and has had the lowest rate among the 50 states every year since at least 1979.¹² West Virginia's prime-age rate is 2.6 percentage points lower than the next lowest state, Kentucky, and West Virginia is the only state with a prime-age rate below 75 percent (**Figure 5**).

Figure 4
Labor Force Participation Rate by State, 2014



Source: U.S. Census Bureau, Local Area Unemployment Statistics and Current Population Survey.

Figure 5
Labor Force Participation Rate by State, Prime Age (Ages 25-54)



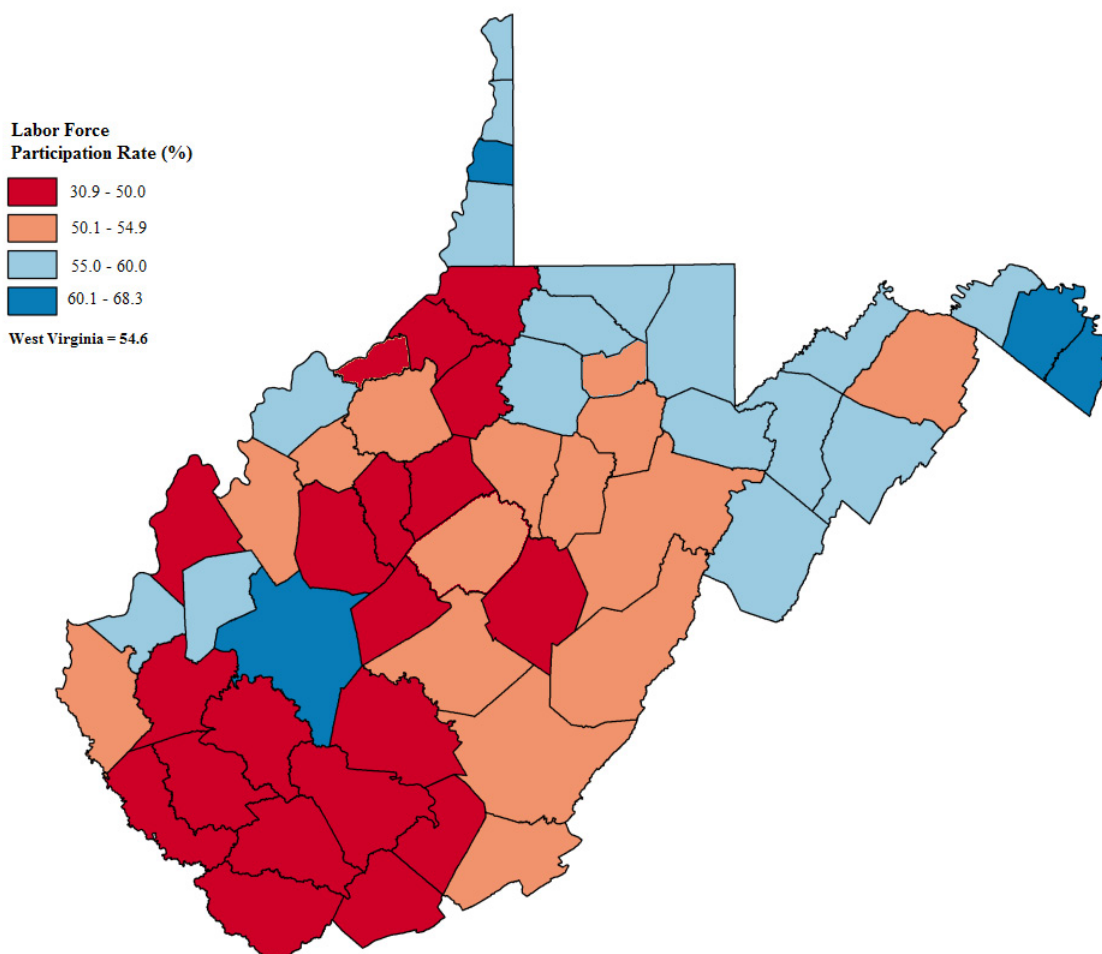
Source: U.S. Census Bureau, American Community Survey microdata. Note: Data reflect 2011-2013 average.

West Virginia County-Level Comparison

Labor force participation rates among West Virginia's counties vary from a low of 31 percent in McDowell County to a high of over 68 percent in Jefferson County.¹³ Higher levels of labor force participation tend to be found in the state's

panhandles, in the northern part of the state, and in the Kanawha Valley (**Figure 6**). Three of the four counties with rates above 60 percent are in either the northern or eastern panhandle. Kanawha County is the only county with a LFPR over 60 percent not located in one of the state's panhandles. Counties with lower labor force participation rates tend to be found in the southern and central parts of the state.

Figure 6
Labor Force Participation Rate by West Virginia County



Source: U.S. Census Bureau, American Community Survey, 2009-2013 Five-Year Estimates.

Demographic Characteristics

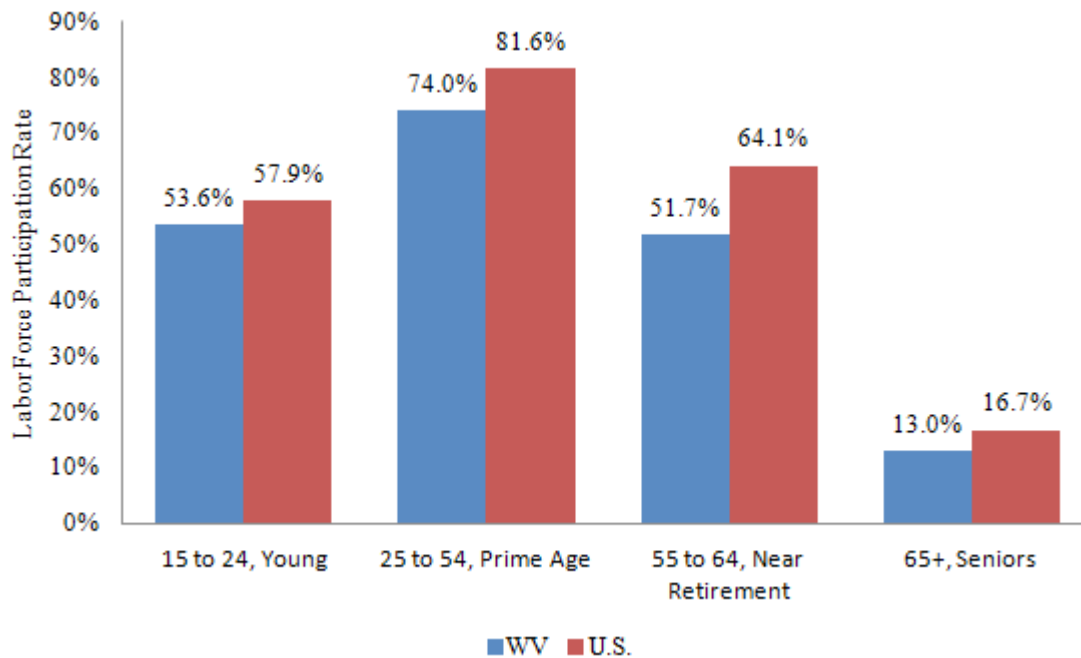
Labor Force Participation by Age

Labor force participation rates vary substantially by age. Nationally, older and younger workers tend to exhibit lower participation rates than those workers in their prime working-age years, with prime-age workers less likely to be either retired or enrolled in school.

This pattern is also true for West Virginia. Prime-age workers in West Virginia exhibit a LFPR of 74.0 percent, nearly 20 percentage points higher than the state's overall rate of 54.5 percent (**Figure 7**). Younger workers, aged 15 to 24, and older workers, aged 55 to 64, have LFPRs closer to the state average, at 53.6 percent and 51.7 percent, respectively. Workers over the age of 65 in West Virginia have a very low LFPR, at just 13.0 percent.

Figure 7

Labor Force Participation Rate by Age, U.S. and West Virginia



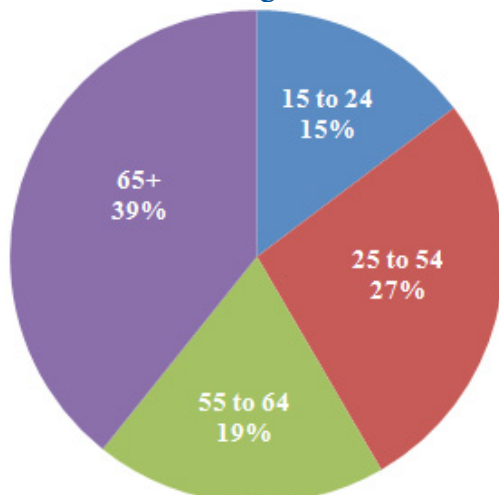
Source: U.S. Census Bureau, American Community Survey microdata. Note: Data reflect 2011-2013 average.

West Virginia's LFPR falls below the national average for each age group. The gap between the U.S. and West Virginia is smallest for the 65 and older age group, where West Virginia lags the nation by less than four percentage points. In contrast, West Virginia lags the nation by 7.6 percentage points for prime-age workers, 4.3 percentage points for workers between the ages of 15 and 24, and 12.4 percentage points for workers between the ages of 55 and 64. West Virginia ranks last in the nation for each age group, with the exception of the 15 to 24 age group (where West Virginia ranks 46th lowest).

Nearly 700,000 adult men and women are not in the labor force in West Virginia. If policy is considered to enhance labor force participation, it is these individuals who must be affected (**Figure 8**).

Figure 8

Age Distribution of West Virginia Labor Force Non-Participants



Source: U.S. Census Bureau, American Community Survey microdata. Note: Data reflect 2011-2013 average.

Among those not in the labor force, 39 percent are age 65 or older and are unlikely to reenter the labor force as a result of any policy initiative. In contrast, 15 percent of those who are not in the labor force are in the 15 to 24 age group and 27 percent, or around 185,000 people, are between the ages of 25 and 54. Policies that target the latter group have the most potential to substantially increase labor force participation. In addition, 19 percent of those not in the labor force are between the ages of 55 and 64, and could also be affected, to at least some degree, by policies that encourage labor force participation.

Labor Force Participation by Age – Youth

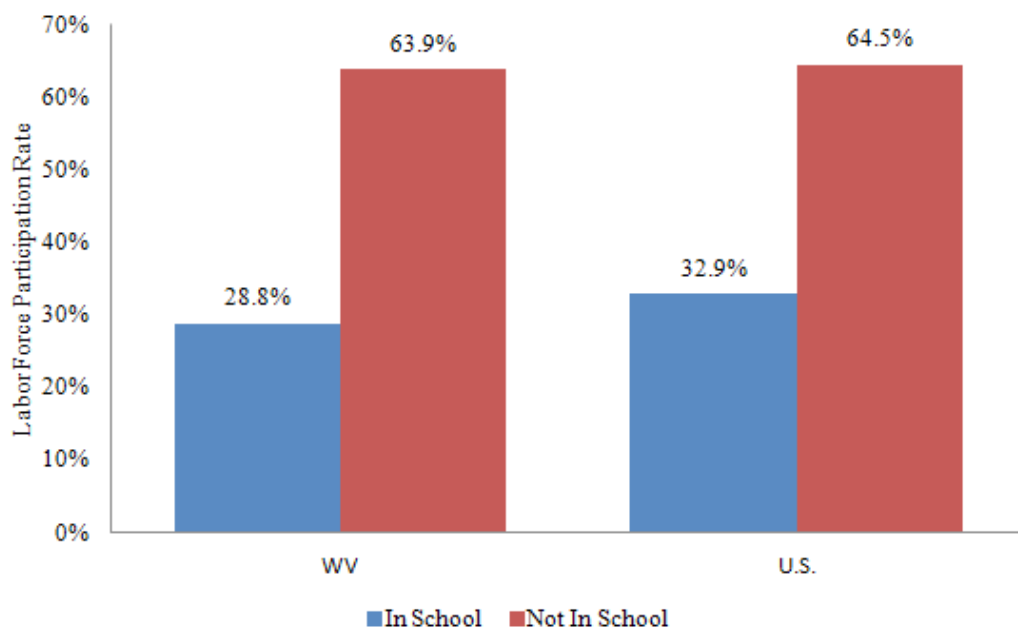
Another area where West Virginia fares poorly against other states with regard to labor force participation is among the state's youth. Youth (defined as individuals between the ages of 16 and 19) in West Virginia exhibit a labor force participation rate of 35.3 percent, lower than the national rate of 37.6 percent. Between 2011 and 2013, West Virginia ranked 41st lowest among the 50 states and D.C. in youth labor force participation.

A smaller share of West Virginia's youth population is in school compared to most states. Nationwide, 85.2 percent of 16 to 19 years olds are attending school, but the figure is 81.5 percent for West Virginia.

Unsurprisingly, youth workers who are not attending school exhibit higher rates of labor force participation than those who are. In West Virginia, youth attending school exhibit a LFPR of 28.8 percent, while those who are not in school have a LFPR of 63.9 percent (**Figure 9**). However, figures for both groups in West Virginia lag the corresponding national figures.

Figure 9

Youth Labor Force Participation and School Attendance, West Virginia and U.S.

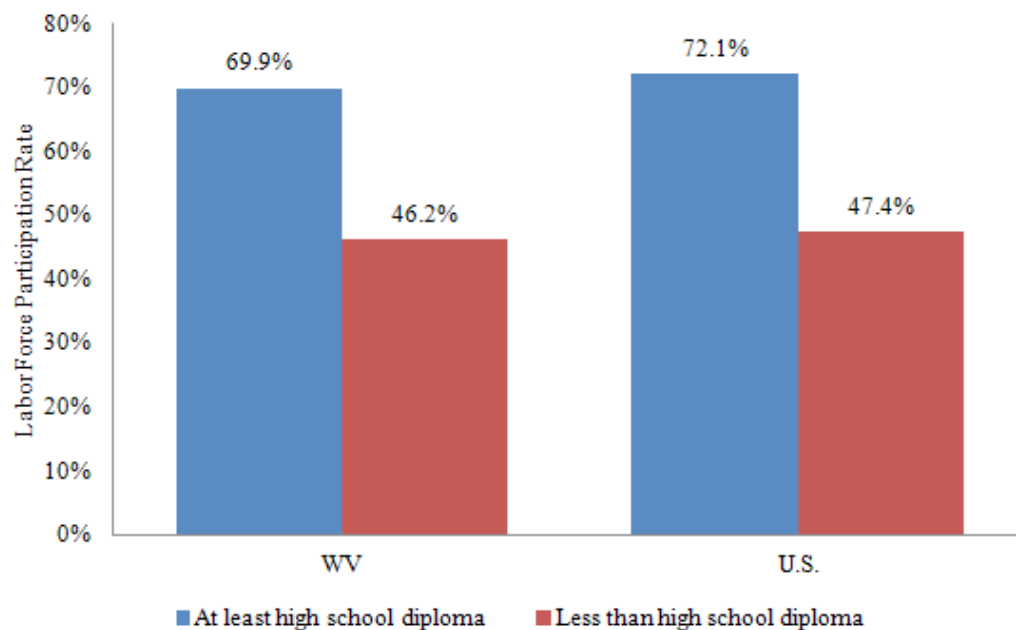


Source: U.S. Census Bureau, American Community Survey microdata. Note: Data reflect 2011-2013 average.

Labor force participation is significantly higher for those who have completed their higher school diploma or equivalent compared to those who have dropped out (**Figure 10**). The pattern holds true for West Virginia and for the nation. This finding suggests that efforts to encourage high school completion may improve labor force participation.

Figure 10

Labor Force Participation Among Youth Not in School, by Educational Attainment, West Virginia and U.S.



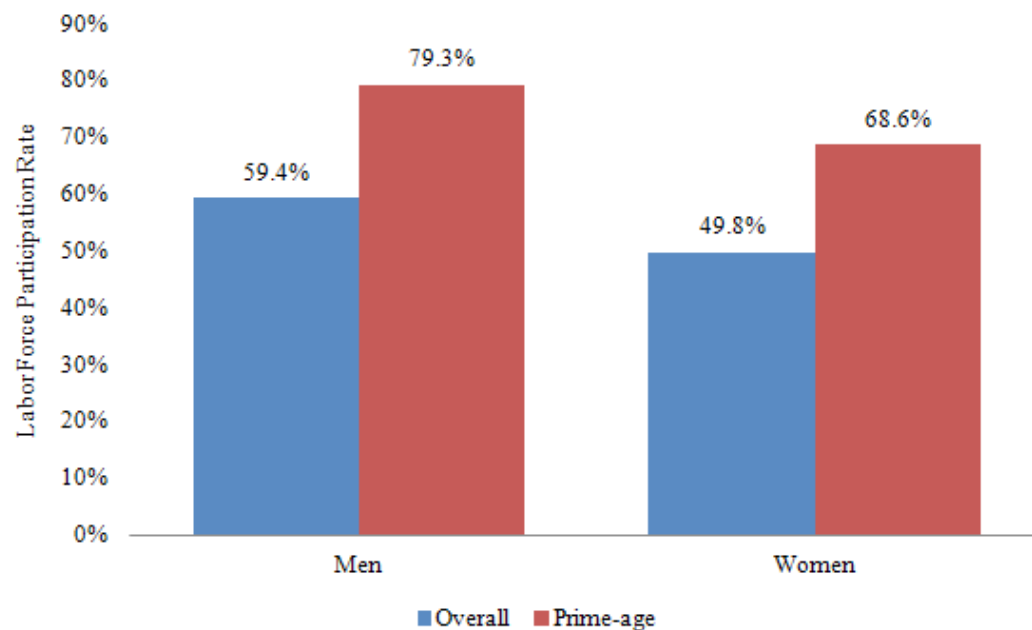
Source: U.S. Census Bureau, American Community Survey microdata. Note: Data reflect 2011-2013 average.

Labor Force Participation by Sex and Race

Men, both overall and prime-age, have higher rates of labor force participation than women (**Figure 11**). The LFPR among West Virginia men is 59.4 percent, compared to 49.8 percent for women. Men of prime working age exhibit a LFPR of 79.3 percent, while for women it is 68.6 percent. West Virginia lags the nation for each of these categories.

Figure 11

Labor Force Participation by Sex, West Virginia

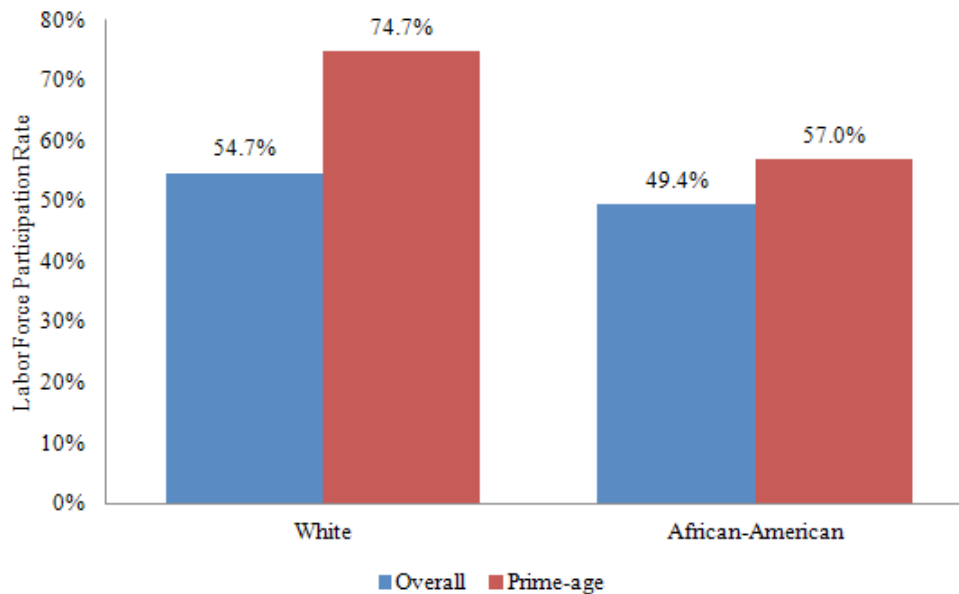


Source: U.S. Census Bureau, American Community Survey microdata. Note: Data reflect 2011-2013 average.

Labor force participation also varies by race (**Figure 12**). Whites exhibit higher labor force participation compared to African-Americans nationally and in West Virginia, both overall and for prime-age workers. White workers in West Virginia have an overall LFPR of 54.7 percent, compared to 49.4 percent for African-Americans. Prime-age white workers in West Virginia have a LFPR of 74.7 percent, substantially higher than the rate of 57.0 percent for African-Americans.

Figure 12

Labor Force Participation by Race, West Virginia



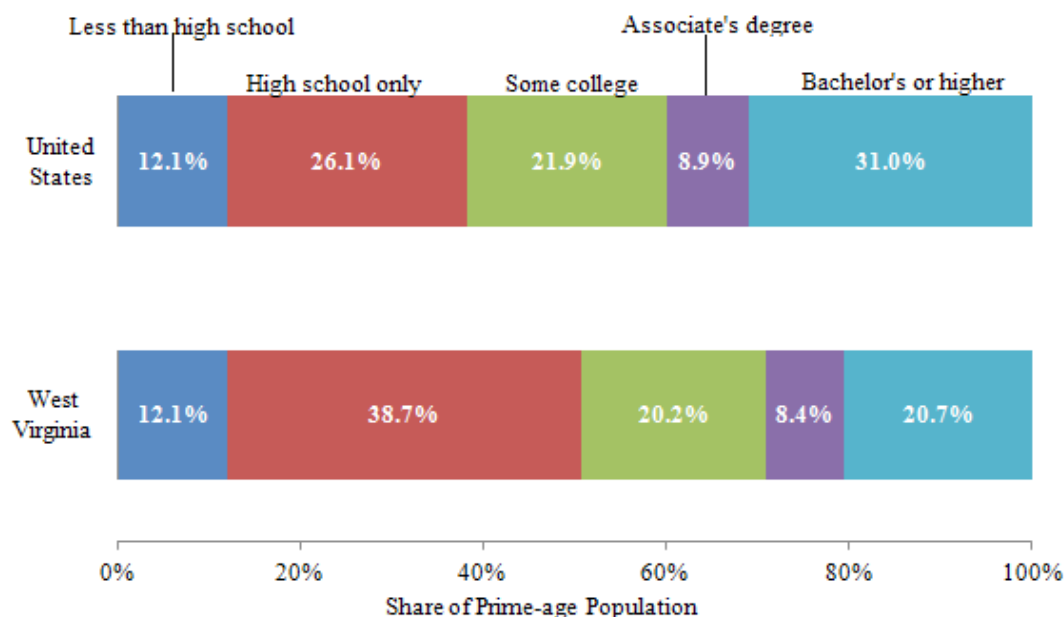
Source: U.S. Census Bureau, American Community Survey microdata. Note: Data reflect 2011-2013 average.

Socio-Economic Characteristics

Educational Attainment

West Virginia exhibits one of the nation's lowest levels of educational attainment. Only 21 percent of the state's prime-age population has a four-year college degree, compared to the national average of 31 percent, ranking West Virginia last among the 50 states and D.C. Further, 42 percent of the state's prime-age population has only a high school education, the highest rate in the country, compared to 28 percent nationally (**Figure 13**).

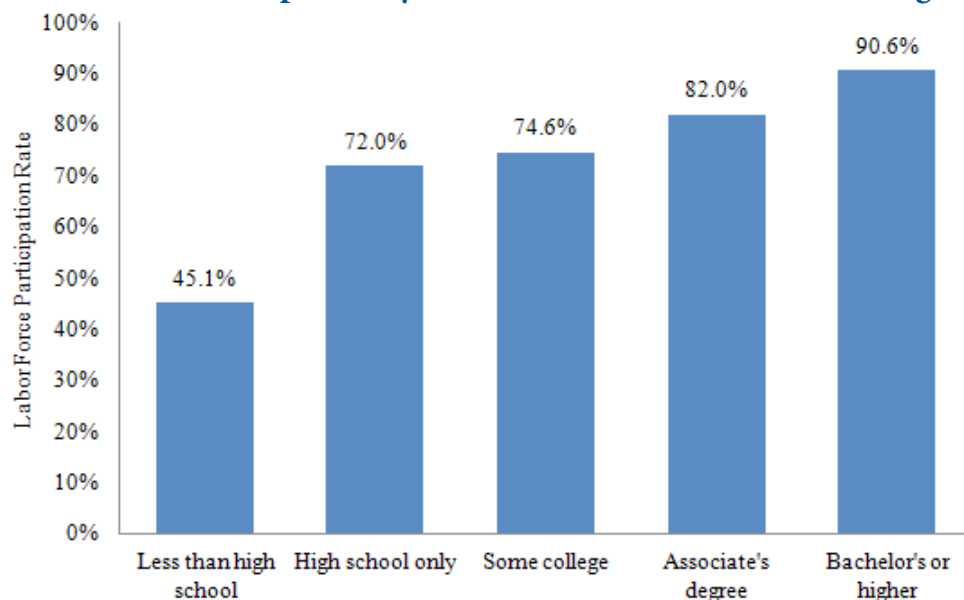
Figure 13
Educational Attainment, Prime-Age, U.S. and West Virginia



Source: U.S. Census Bureau, American Community Survey microdata. Note: Data reflect 2011-2013 average.

Labor force participation rates increase with educational attainment in West Virginia and nationally. Prime-age workers in West Virginia with just a high school education have a LFPR of 72 percent, compared to 91 percent for those prime-age workers with a college degree (**Figure 14**). In fact, prime-age workers with a college degree in West Virginia have a higher LFPR than the national average, with the state ranking 14th highest. Altogether, these data provide further suggestive evidence that improving West Virginia's educational outcomes could enhance its labor force participation. Although these data suggest that any improvement in educational attainment would improve labor force participation, the highest gain may be by encouraging the attainment of a high school diploma, or its equivalent, by those who do not yet have one.

Figure 14
Labor Force Participation by Educational Attainment, Prime-Age, West Virginia

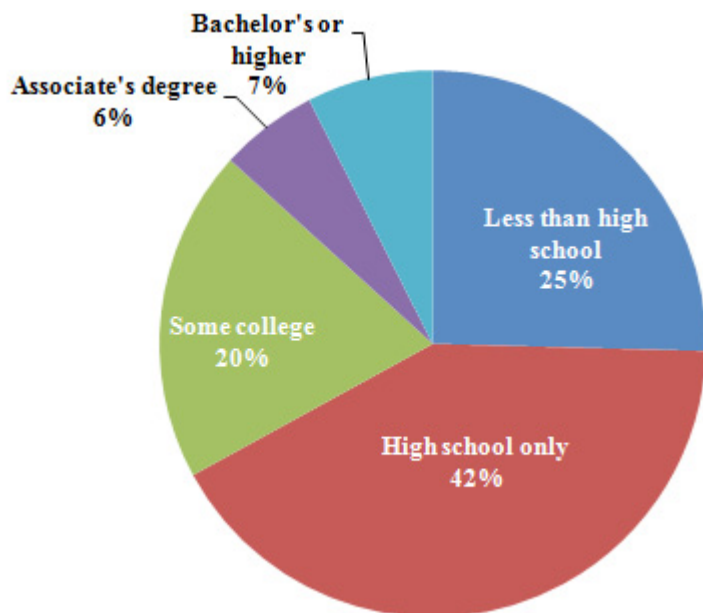


Source: U.S. Census Bureau, American Community Survey microdata. Note: Data reflect 2011-2013 average.

The bulk of prime-age men and women who are not in the labor force (42 percent) holds only a high school diploma, while another 25 percent have not yet attained one (**Figure 15**). Efforts to enhance labor force participation will likely be most fruitful if they target this population.

Figure 15

Educational Attainment of Prime-Age Labor Force Non-Participants, West Virginia



Source: U.S. Census Bureau, American Community Survey microdata. Note: Data reflect 2011-2013 average.

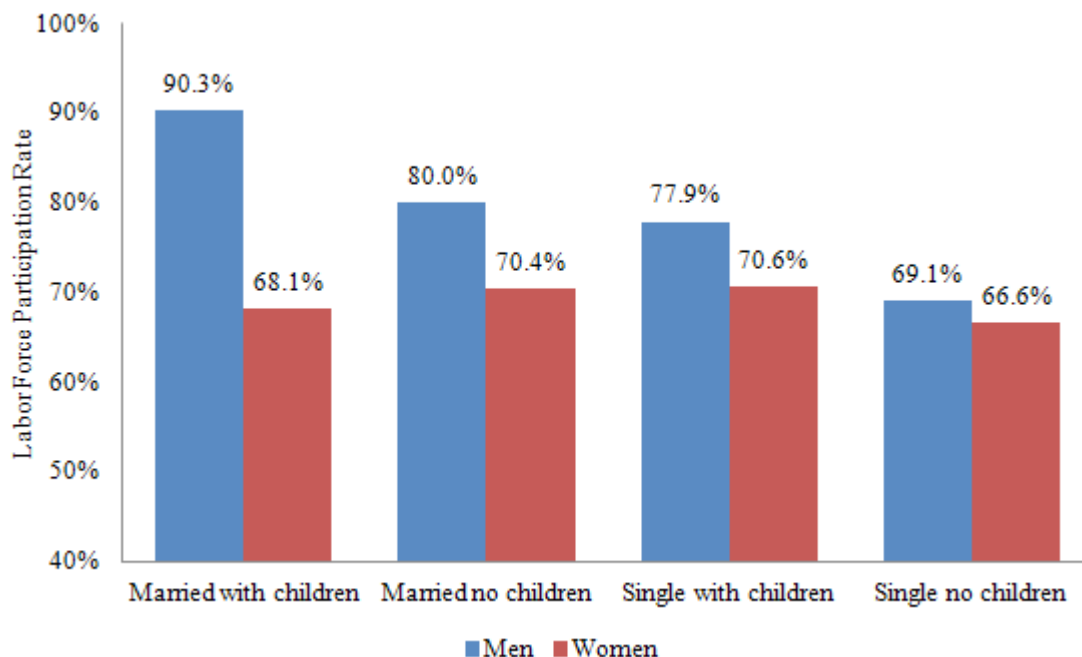
Family Structure

West Virginia's labor force participation varies significantly by family structure (**Figure 16**). Data indicate that those who are married or who have children are more likely to be in the labor force. Prime-age married men with children have the highest labor force participation rate at 90 percent, while nearly 78 percent of single men with children are in the labor force. Prime-age men without children have much lower LFPR than those with children. Married men with no children have a LFPR of 80 percent, and single men with no children have a rate of 69 percent.

Among women, participation rates by family structure are slightly different and do not exhibit as much variation. Among women, single women with children have the highest LFPR at 71 percent, slightly higher than the rate for married women with no children. Single women with no children have the lowest LFPR at 67 percent, while married women with children have a LFPR of 68 percent (**Figure 16**).

Figure 16

Labor Force Participation by Family Structure, Prime-Age, West Virginia

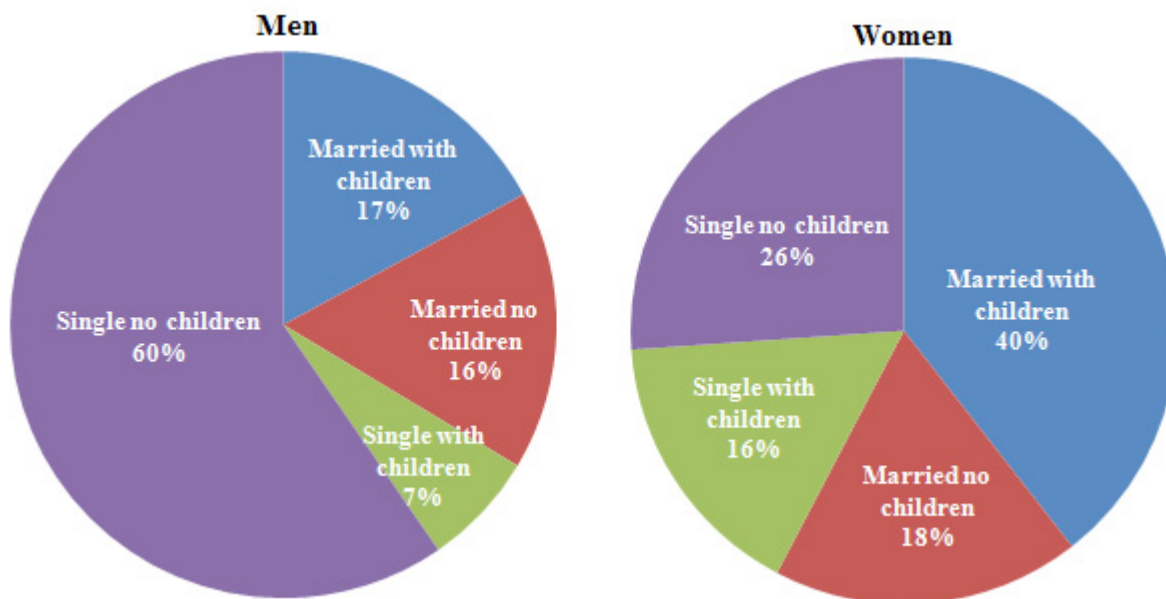


Source: U.S. Census Bureau, American Community Survey microdata. Note: Data reflect 2011-2013 average.

Figure 17 shows the family status for of prime-age West Virginians who are not in the labor force. The left panel illustrates the family status composition for men who are not in the labor force and the right panel provides the illustration for women. Sixty percent of West Virginia men who are not in the labor force are single with no children. Among women who are not in the labor force, 40 percent are married with children.

Figure 17

Family Status of Labor Force Non-Participants, West Virginia



Source: U.S. Census Bureau, American Community Survey microdata. Note: Data reflect 2011-2013 average.

The patterns of labor force participation for men and women suggest that for men, the presence of a family increases the likelihood of labor force participation, with married fathers having a very high participation rate. For women, that is less true, with the data suggesting that stay-at-home moms are a factor in women's overall labor force participation. These patterns suggest that efforts to increase access to childcare and improve family economic security may increase labor force participation.

Health Status/Disability

West Virginia has one of the least healthy populations in the country. Only 18 percent of prime-age West Virginians report being in excellent health, compared to nearly 30 percent nationwide, while over seven percent of West Virginia's prime-age population reports being in poor health, compared to less than three percent nationwide (**Figure 18**). In addition to one of the least healthy populations in the country, West Virginia also has one of the highest rates of disability. Fourteen percent of the state's prime-age population reports having a disability that limits or prevents work, double the national rate of seven percent (not illustrated).

Figure 18

Health Status of the Prime-Age Population, U.S. and West Virginia

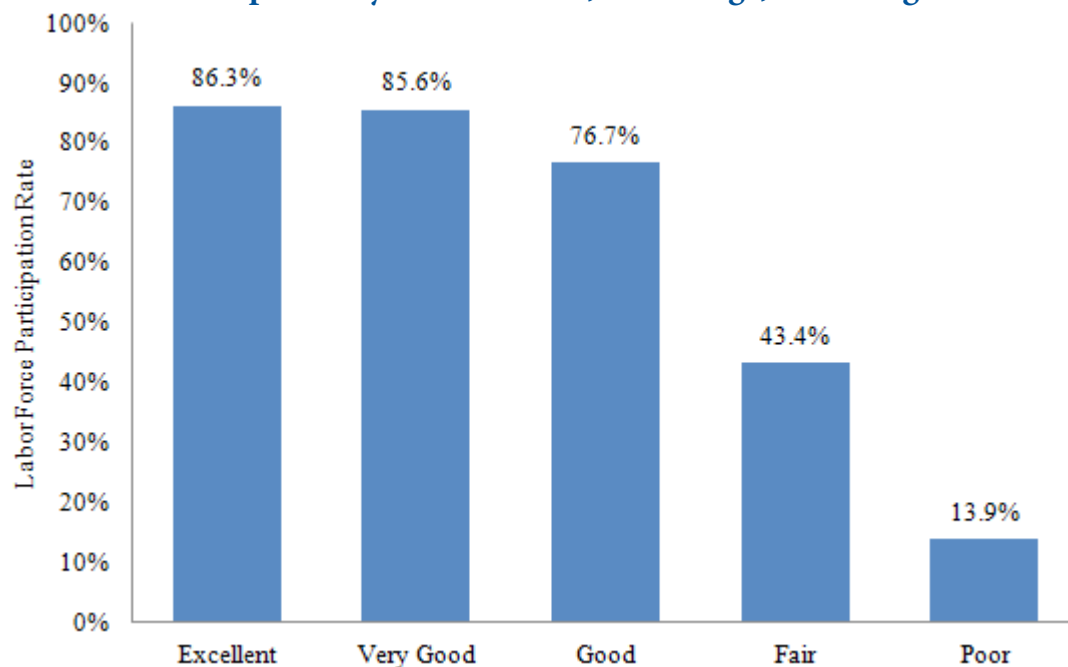


Source: U.S. Census Bureau, Current Population Survey microdata. Note: Data reflect 2011-2013 average.

Labor force participation rates vary greatly by health status in West Virginia, with rates increasing for healthier workers. Prime-age workers in West Virginia who report being in excellent health have a LFPR of 86 percent, compared to under 14 percent for those prime-age workers in West Virginia who are in poor health (**Figure 19**). Prime-age individuals in West Virginia with a work-limiting disability have a LFPR of four percent, compared to 82 percent for those without a disability.

Figure 19

Labor Force Participation by Health Status, Prime-Age, West Virginia

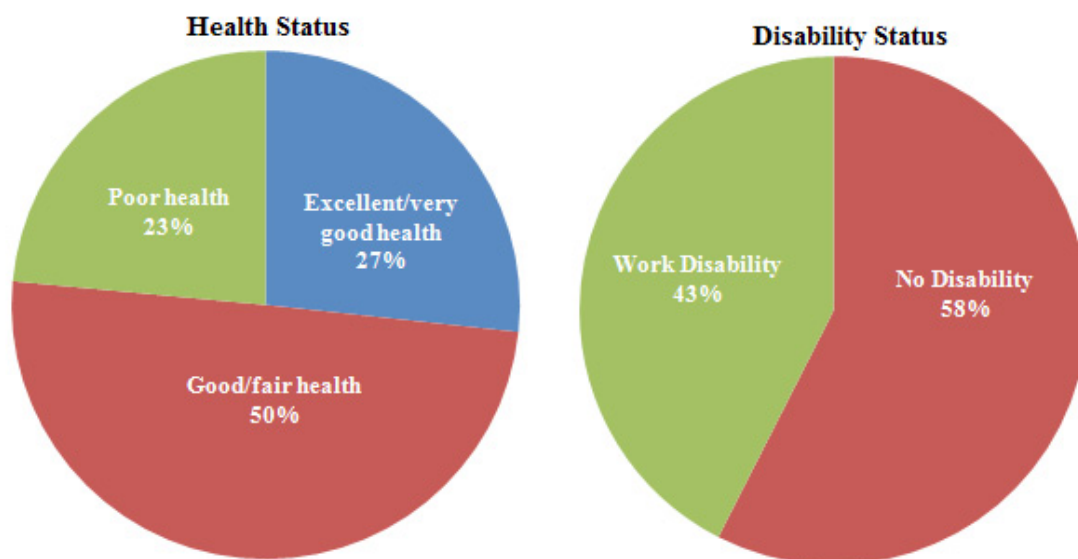


Source: U.S. Census Bureau, Current Population Survey microdata. Note: Data reflect 2011-2013 average.

Almost a quarter of prime-age West Virginians not in the labor force report that they are in poor health, while making up only 7.4 percent of the prime-age population (**Figure 20**). Similarly, more than 42 percent of prime-age West Virginians not in the labor force have a disability that prevents them from working, while only making up 14 percent of the prime-age population (nationally, only 29 percent of those not in the labor force are disabled). Altogether this suggests that efforts to promote better health and alleviate disability would likely promote labor force participation.

Figure 20

Health and Disability Status of Labor Force Non-Participants, Prime-age, West Virginia



Source: U.S. Census Bureau, Current Population Survey microdata. Note: Data reflect 2011-2013 average.

Public Assistance

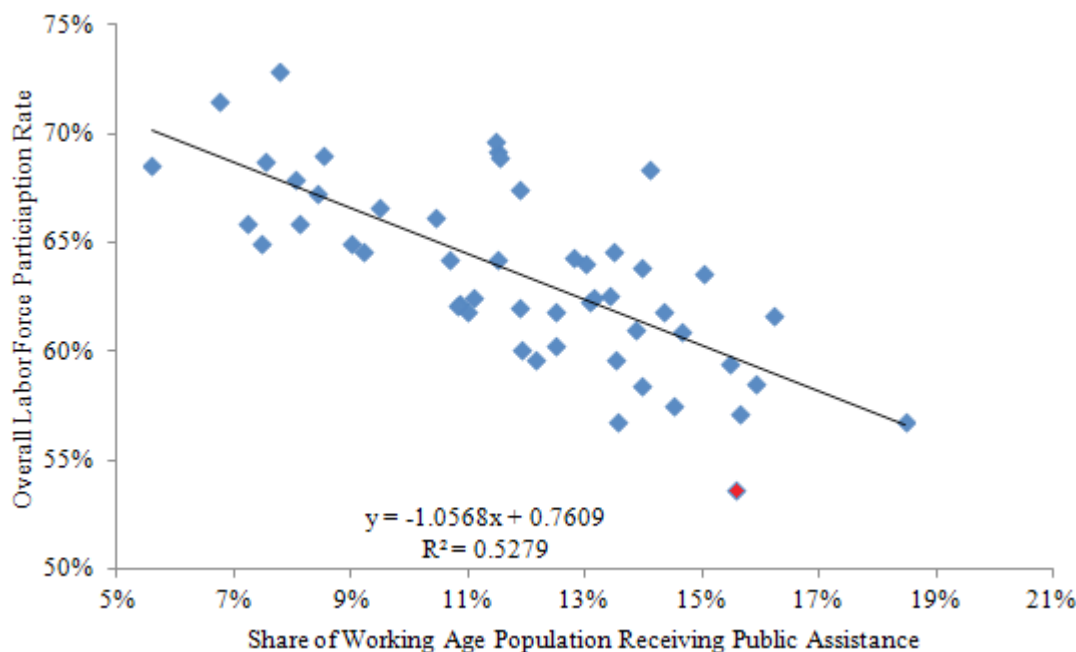
A relatively large share of West Virginia's working-age population receives some sort of public assistance. Persons receiving public assistance include those with income from Social Security Supplemental Security Income (SSI), Temporary Assistance for Needy Families (TANF), and those who benefit from the Supplemental Nutrition Assistance Program (SNAP, commonly known as food stamps).

Overall 15.6 percent of West Virginia's working-age population receives benefits from at least one of the above programs, compared to the national average of 12.0 percent. This places West Virginia 5th highest among the 50 states in terms of the share of working-age population receiving public assistance. More specifically, approximately 13.8 percent of the state's working-age population lives in a household that receives SNAP benefits; 4.7 percent receive SSI; and another 0.6 percent of the working-age population receives TANF or other public assistance benefits.¹⁴

In general, states with higher rates of public-assistance reciprocity tend to have lower overall levels of labor force participation (**Figure 21 - West Virginia is highlighted in red**).

Figure 21

Labor Force Participation and Public Assistance



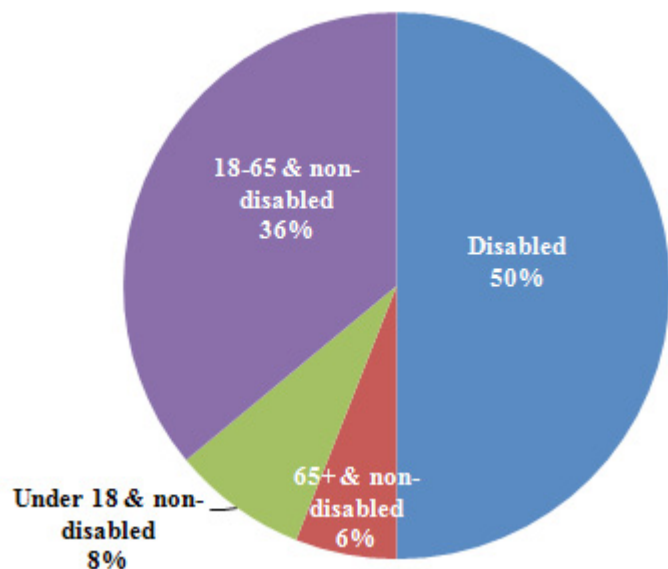
Source: U.S. Census Bureau, Current Population Survey microdata. Note: Data reflect 2011-2013 average.

A simple model that estimates the relationship between these two factors indicates that a one-percentage-point reduction in the share of the population receiving public assistance is associated with an increase in labor force participation of slightly more than one percentage point.

The relatively close relationship between the share of the population receiving public assistance and labor force participation is in part because public assistance benefits tend to be received by those who are not likely to be in the labor force in the first place – i.e., those who are disabled and those who are under the age of 18. For example, in West Virginia, individuals with a disability that limits or prevents work comprise about 16 percent of the working age population, but make up nearly 39 percent of public assistance recipients. Individuals under the age of 18 are similarly overrepresented in those receiving public assistance (**Figure 22**).¹⁵

Figure 22

Disability Status of Public Assistance Recipients Who Are Not in the Labor Force, West Virginia

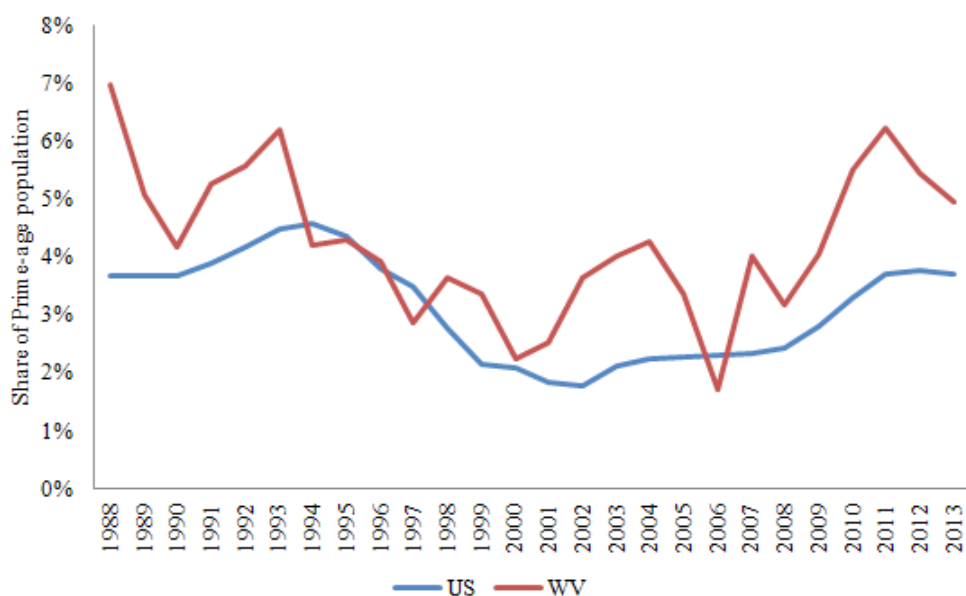


Source: U.S. Census Bureau, Current Population Survey microdata. Note: Data reflect 2011-2013 average.

Although typically higher than the national average, the share of prime-age individuals who are not in West Virginia's labor force and are non-disabled and receiving public assistance follows the national trend of rising during recessions and falling during good economic times (**Figure 23**). Over the past 25 years in West Virginia, the share of prime-age, non-disabled workers not in the labor force but who received public assistance peaked at 7.0 percent in 1988, before falling through most of the 1990s. After rising during the early 2000s recession, it reached its lowest point in 2006 at 1.7 percent, before spiking again during the 2007 recession.

Figure 23

Share of Prime-Age Population, Non-Disabled Individuals Not in the Labor Force Who Receive Public Assistance, U.S. and West Virginia



Source: U.S. Census Bureau, Current Population Survey microdata. Note: Data reflect 2011-2013 average.

Summary

The statistical overview presented in this section provides a detailed descriptive look at labor force participation in West Virginia and the nation across a number of demographic and socio-economic factors. First, labor force participation in West Virginia, and in the nation, improved substantially over the latter half of the 20th century, but has declined since 2000. Despite overall improvements over the last six decades, labor force participation in West Virginia has lagged the nation by a consistent margin. Not surprisingly, labor force participation varies widely across West Virginia's 55 counties and tends to be lowest in the southern part of the state.

Labor force participation in West Virginia lags the nation across all age groups. Consistent with overall labor force participation rates, labor force participation among prime-age workers (ages 25-54) in West Virginia is also the lowest among the 50 states and has lagged the national average by a fairly consistent margin. Of the 700,000 West Virginians who are not in the labor force, only 39 percent are above age 65. Twenty-seven percent of non-participants are of prime working age.

Education and health appear to be important determinants of labor force participation. Data for both West Virginia and the US suggest that labor force participation increases rapidly with higher levels of education. The same correlation appears to hold for health in that labor force participation is higher for those who have a higher self-reported health status.

On the other hand, individuals with a disability that limits or prevents them from working comprise 44 percent of those not in the labor force (prime age). This suggests that effective efforts to improve disability outcomes and to promote efforts to match the disabled with less-labor-intensive work might substantially improve labor force participation. Finally, 15.6 percent of West Virginia's working-age population receives benefits from various public assistance programs. In general, states with higher rates of public-assistance reciprocity tend to have lower overall levels of labor force participation; however the majority of those who receive public assistance and are not in the labor force are either disabled, under 18, or over 65.

Section Two

Econometric Analysis

In this section we explore the statistical relationship between state-level demographics and other key characteristics and differences in the percent of the population that participate in the labor market in West Virginia and the U.S.

For this analysis we assembled a database of labor force participation rates by state from 2001 to 2010 derived from basic monthly data from the Current Population Survey, the primary source of labor force statistics in the U.S.¹⁶

From 2001 to 2010, the labor force participation rate averaged 56% in West Virginia and 67% in the U.S. (**Table 1**). Also listed in Table 1 is the mean value for each of the additional controls (independent variables) we include in our statistical analysis of labor force participation rates across the 50 states and the District of Columbia.

Table 1
Mean Values 2001 to 2010

Variable	West Virginia	United States
Labor force participation rate	56%	67%
Age 16 to 24	14%	16%
Age 25 to 54	51%	54%
Age 55 to 64	16%	14%
Age 65 and older	19%	16%
Female	52%	52%
White	95%	75%
Black	3%	10%
Hispanic	1%	8%
Other	1%	6%
Less than a high school diploma	21%	17%
High school diploma	42%	32%
Some college	15%	19%
Associates degree	7%	8%
Bachelor's degree or more	15%	24%
Population per square mile	75	322
Disabled adults receiving Social Security	11%	5%
Adults with own children under age 6	16%	20%
Married	58%	55%
Adults in families receiving TANF	1.1%	1.0%
# days in past 30 that poor health limited activity	3.26	2.11

Our controls follow closely our descriptive analysis in Section One in that we include for each state the share of people by age, gender, race and ethnicity, educational attainment, marital status and with children under the age of 6.¹⁷ We also include four additional controls which play an in important role in influencing labor force participation rates including rurality (population per square mile),¹⁸ the disabled receiving Social Security and or Supplemental Security Income (SSI) as

a share of the adult population (18 to 64),¹⁹ adults living in families receiving Temporary Aid to Need Families (TANF) as a share of the adult population²⁰ and the average number of days in the past 30 that adults in each state reported poor health limited their ability to pursue activities such as self-care, work or recreation.²¹

Table 2 presents the coefficients and standard errors for each of our independent variables. The results are similar to the descriptive analysis laid out in Section Two with age, gender and race, and educational attainment all statistically significant predictors of differences in labor force participation rates across the states.

Table 2
Results of a Fixed Effects Panel Regression by State Over the Period 2001 to 2010 With Labor Force Participation as the Dependent Variable

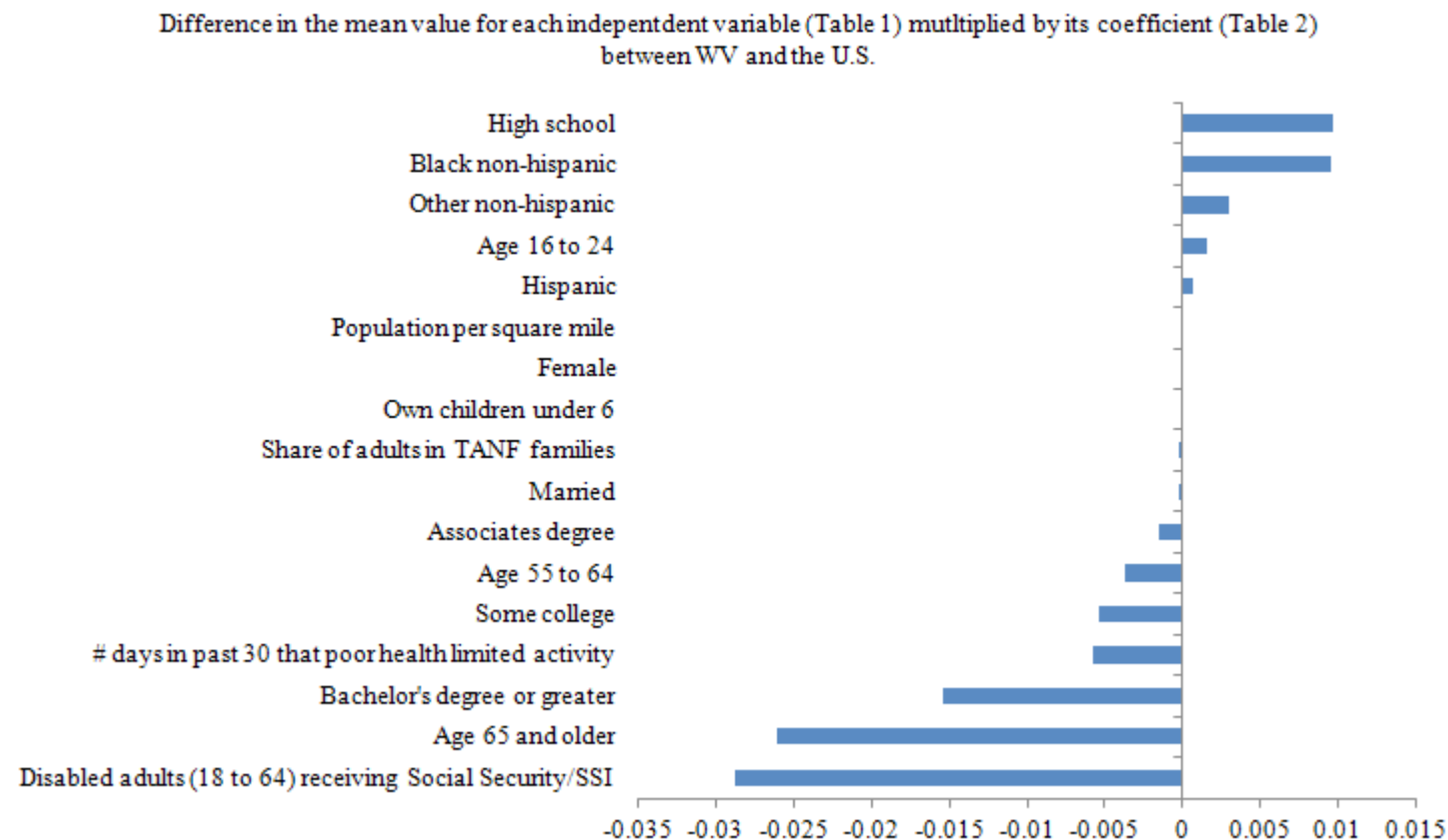
Variables	Coefficient	Standard Error
Age 16 to 24	-0.081	-0.091
Age 55 to 64	-0.186*	-0.096
Age 65 and older	-0.868***	-0.075
Female	-0.613***	-0.166
Black non-hispanic	-0.137**	-0.055
Other non-hispanic	-0.059	-0.098
Hispanic	-0.009	-0.066
High school	0.097	-0.082
Some college	0.134*	-0.078
Associates degree	0.157	-0.109
Bachelor's degree or greater	0.171**	-0.083
Population per square mile	0.000	0.000
Disabled adults (18 to 64) receiving Social Security/SSI as a share of the resident population	-0.480***	-0.09
Own children under 6	0.003	-0.05
Married	-0.007	-0.053
Share of adults in TANF families	-0.199	-0.184
# days in past 30 that poor health limited activity	-0.005*	-0.003
Constant	1.109***	-0.108
R-square-within	0.603	
R-square-between	0.659	
R-square-overall	0.650	
N	463	

Notes: *, ** and *** indicate significance at the 10, 5 and 1 percent levels respectively. Standard error estimates are robust to disturbances being heteroscedastic. The reference group includes the share of the population; age 25 to 54, male, white non-hispanic, with less than high school diploma and single.

Among our remaining controls only disabled adults receiving Social Security/SSI as a share of the resident population and mean # number of days in past 30 in poor health were statistically significant predictors of differences in labor force participation across the states.

Figure 24 unpacks these results further by presenting the difference between the contribution to the labor force participation rate for West Virginia and the U.S. for each of our statistical controls where negative values (bars running to the left in Figure 24) indicate that a characteristic lowers West Virginia’s labor force participation rate relative to the U.S. rate. Of the eleven factors that lower labor force participation in West Virginia relative to the U.S., the seven most important relate to age, health and educational attainment. Specifically West Virginia’s population is older, has completed less formal education and is in relative poor health. It is these factors that play the most important role in explaining why West Virginia has a lower labor force participation rate than the U.S. average.

Figure 24
Education, Health, and Age Play the Most Important Role in Explaining West Virginia’s Relatively Low Labor Force Participation Rate Results



Section Three

Potential Policy Solutions

West Virginia's low level of labor force participation is one of the state's greatest economic challenges. Improving the state's participation rate greatly depends on improving the state's economy by creating more opportunity for the state's workers. However, policy choices we make can also improve the outlook for the state's labor force participation. This section includes a discussion of policies the state of West Virginia could pursue to help improve the trajectory of its labor force participation rate.

State Earned Income Tax Credit (EITC)

Enacted in 1975, the federal Earned Income Tax Credit (EITC) is a refundable tax credit (often referred to as a 'wage supplement') for low-income working families that is designed to encourage and reward work, offset payroll and income taxes, and reduce poverty. The value of the credit varies with earned income and number of children, with larger credit amounts for families with children. In the 2015 tax year, working families with children with annual incomes below about \$39,000 to \$53,000 (depending on marital status and number of children) may be eligible for the credit.

In the 2014 tax year, the federal EITC provided over \$65 billion worth of benefits to almost 26.7 million low-income workers and families.²² In 2013, the EITC lifted about 6.2 million people above the federal poverty line.²³ In West Virginia, approximately 157,000 tax filers (21%) received \$351 million in EITC benefits in 2014 with an average EITC credit amount of \$2,241.²⁴ The national EITC participation rate was 80 percent in 2012, which was slightly lower than West Virginia's rate of 81 percent.²⁵ While the EITC has rates of "improper payments" or error rates (not to be confused with fraud) that are between 22 and 26 percent, most EITC-related errors are unintentional and tend to occur because of complexity (e.g. the definition of a qualifying child) and paid tax preparers who may have an incentive to over-claim compared to other preparers.²⁶

In addition to directly raising incomes, studies have shown that the EITC also works to incentivize work and boost labor force participation. Hotz and Scholz (2003) found unambiguously that the introduction of EITC induces individuals to enter the labor force and work.²⁷ There have also been several studies that show that the EITC increases the labor force participation of single women, especially those with young children and low education.²⁸ The research also shows that the EITC helps children of EITC recipients by improving their health, boosting college attendance and school achievement, and increasing earnings when they reach adulthood.²⁹

Currently, 26 states, the District of Columbia, New York City, and Montgomery County, Maryland have enacted EITCs to supplement the federal EITC.³⁰ Twenty-three of these states have enacted a refundable EITC. A "refundable" credit provides a refund to the taxpayer if the credit is larger than what he or she owes. Refundable EITCs provide a much greater benefit for low-income families than non-refundable EITCs.

In 2007, West Virginia established a limited low-income earned exclusion called the Family Tax Credit (FTC), which eliminates the income tax liability for taxpayers below the federal poverty line and offers a partial exclusion for those up to 120 percent of the federal poverty line. West Virginia could build on this program or replace it by offering a refundable EITC that would better target those with wage income and give others who are not working more of an inducement to join the workforce. For FY 2015, the estimated cost of a refundable state EITC at five percent of the federal EITC would be \$15 million, at 10 percent \$30 million, 15 percent \$45 million, and \$60 million at 20 percent.³¹ Under federal law, states can also use Temporary Assistance for Needy Families (TANF) funding to cover the refundable share of a state EITC.

Enhancing Child Care Assistance

The West Virginia Child Care Program – which is funded primarily through the federal Child Care and Development Fund (CCDF), TANF, and state matching funds – provides child care subsidies to eligible parents (those below 150% of federal poverty level) who are working or going to school.³² In 2011, approximately 24,000 children received child care assistance in West Virginia.

Research shows that child care assistance is crucial to helping low-income families maintain employment, stay off welfare, and have higher earnings. Without public child care assistance, many low-income parents and single mothers would be unable to afford the high cost of private child care. For example, the average annual cost for an infant in full-time care in a child care center in West Virginia is \$7,800.³³ For a single mother earning the minimum wage (\$15,080 annually), this would be over half (52%) of her pre-tax annual income.

A recent study by the Economic Policy Institute (EPI) found that single mothers with children under age six who receive child care assistance are 40 percent more likely to be employed after two years than mothers who do not receive assistance.³⁴ The study also found that former welfare recipients were 82 percent more likely to still be employed after two years than those who received no child care assistance. Single mothers make up 12 percent of those ages 25 to 54 that are not in the labor force in West Virginia.

Both a study from the U.S. Government Accountability Office (GAO) and a study of low-income single mothers in California showed a positive relationship between decreasing child costs and women's labor participation.³⁵ A 2004 University of Chicago study of three states found that using a child care subsidy decreased the probability of ending employment between 25 and 43 percent.³⁶ In a similar vein, the Urban Institute found that families receiving public child care assistance were significantly less likely to return to welfare than families who did not receive assistance.³⁷ According to the study, about 15 percent of former welfare recipients with child care subsidies returned to welfare compared with about 25 percent without subsidies. A more recent study in Arizona found that 49 percent of Arizona parents receiving child care assistance said they would be unable to work without the subsidy program and 41 percent indicated they would request cash assistance.³⁸

A recent study commissioned by the Committee for Economic Development found that child care works to stimulate economic growth primarily through its indirect support of increased labor force participation and education of the workforce.³⁹ The link between higher labor force participation among women and more children in paid child care is strong. The states with a higher share of women in the labor force also have a higher share of school-aged children in paid child care. According the study, only 15.9 percent of children under the age of 14 were in paid child care in West Virginia between 2010 and 2014 – ranking West Virginia last (with Utah) in the nation. West Virginia and Utah also had the smallest share of children under age four in paid child care at 19.8 percent and 16.7 percent, respectively. West Virginia ranked last in the nation in the share of children age 5 to 14 in paid child care at 14.1 percent.

In 2012, 36 states and the District of Columbia had higher income eligibility limits for child care assistance than West Virginia.⁴⁰ As the Governor's Task Force on Early Childhood Planning pointed out in its recent draft recommendations, increasing child care assistance to eligible families from 150 percent to 200 percent of the federal poverty line could reduce the "cliff effect, which discourages parents from advancing in their jobs and careers" in West Virginia.⁴¹ The estimated cost for increasing the income eligibility from 150 to 200 percent would be \$5.4 million (2011 dollars). Policymakers could also explore establishing a child care tax credit or offer an income tax deduction for child care expenses. Over 25 states offer either credits or income tax deductions for child care expenses.⁴²

Other Policy Areas to Boost Labor Force Participation

While the above policy prescriptions have a formal link to increasing the labor force participation rate, especially among single mothers, there are many policy options that could be further explored to boost participation in the labor force.

Formalizing Informal and Nonstandard Work

According to a recent Urban Institute study, the informal sector of the economy – those engaging in economic activities outside tax and regulatory policies and without formal wage arrangements – makes up between five and 10 percent of the nation's Gross Domestic Product (GDP) and between three to 40 percent of the labor force.⁴³ While informal employment and nonstandard work exists across different socioeconomic backgrounds, it is mostly concentered among the poor who are least likely to be in the formal labor force. State policymakers should explore policy changes that could promote cottage industries and informal sectors of the state's economy by bringing them into formal employment. This could include establishing flexible work schedules, increasing access and awareness of occupational skills training, encouraging informal workers to report self-employment, and business tax credits for employers who convert non-standard workers to standard workers.

Helping People with Disabilities Find Work

One of the key drivers of West Virginia's ultra-low labor force participation rate is the state's relatively high share of people with disabilities. As noted earlier, nearly 43 percent of West Virginians between ages 25 and 54 who are not participating in the labor force have a disability that prevents them from working. The West Virginia Division of Rehabilitation Services receives over \$80 million per year in grants from the federal government and state appropriations to help people with disabilities find work and boost their earnings.⁴⁴ The state should ensure that it is drawing down its maximum level of federal vocational funding and should explore ways at the federal level to change the funding formula so states like West Virginia, with its large share of workers with disabilities, can get the services needed to move residents into the workforce.

Policymakers could also focus on youth. According to a recent evaluation by Mathematica Policy Research, West Virginia Youth Works, which serves youth ages 15 through 25 who are Social Security disability beneficiaries, has achieved some very positive outcomes – including increases in earnings and paid employment of those participating in the program compared to a control group.⁴⁵ Policymakers could explore whether this model could be expanded and whether to include youth that are not receiving Social Security disability benefits.

Increasing Access to Higher Education

Participation in the labor force is largely determined by educational attainment. Approximately 71 percent of prime-age workers in West Virginia that are not in the labor have no college experience compared to just 15 percent who have an associate's degree or higher. Therefore, it is imperative that the state moves toward increasing the share of people in the state who complete high school and go on to two- or four-year colleges. This could include boosting support to the state's two- and four-year colleges which has been reduced in recent years, expanding the Promise Scholarship so it serves more people with lower incomes, exploring college mentoring programs (e.g. National College Advising Corps and College Possible), and increasing access to school counselors and other specialists.⁴⁶

Workforce Development and Job Training

With the passage of the Workforce Innovation and Opportunity Act (WIOA) in July 2014, there will be new opportunities in West Virginia to focus on the most vulnerable workers and to align approaches serving low-income, low-skilled individuals.⁴⁷ WIOA also requires that state and local decision makers, and their private sector and community partners, outline a three-year strategy for the statewide workforce investment system. This could be an excellent opportunity to address and develop specific annual goals to increase labor force participation and the needs of individuals with barriers to employment.

As noted by the HOPE Community Development Corporation's recommendations to the Legislative Oversight Commission on Workforce Investment for Economic Development in 2014, there also needs to be better coordination and strategic planning of the state's workforce development agencies and the state legislature. Policymakers should explore HOPE CDC recommendations, including an extensive review and accounting of the state's workforce development system that includes addressing ways to increase the labor force participation rate and to increase oversight and accountability.⁴⁸

Other avenues that could be explored include reinvesting in customized job training⁴⁹ and scaling-up programs such as the West Virginia Manufacturing Extension Partnership.⁵⁰ Policymakers could look at job training programs that are working in other states.⁵¹

Subsidized Employment

One direct way to increase participation in the workforce is for the state to place people in private- or public-sector jobs who cannot find them in the regular labor market. For example, the 2009 American Reinvestment and Recovery Act (ARRA) authorized \$1.3 billion in funds through the Temporary Assistance for the Needy Emergency Fund (TANEF) for states to offer subsidized employment to low-income individuals. West Virginia was one of 39 states to participate in the program. Altogether, \$2.9 million was used to place approximately 200 adults and 1,200 youth in subsidized jobs at a prevailing wage in West Virginia.

A recent evaluation of ARRA-funded subsidized employment programs in five states found that these programs had a positive impact on low-income job seekers employment and earnings, that they created jobs that would not have existed otherwise, and, most importantly, that the programs 'benefitted participants with significant barriers to employment.'⁵² Since 1998, TANF funds have also been used to provide direct employment to over 2,500 individuals through the West Virginia Courtesy Patrol program that is administered by the Civilian Conservation Corps of West Virginia.⁵³

Policymakers could explore the feasibility of building on its existing subsidized employment programs or could look to models in other states. For example, in the 1980s the state of Minnesota ran a successful state-funded subsidized employment program called MEED (Minnesota Emergency Employment Development) that provided wage subsidies to about 19,000 unemployed workers (two-thirds of which were in the private sector) not receiving unemployment insurance.⁵⁴ Other successful state models include Florida Back to Work, Mississippi STEPS, and Put Illinois to Work.⁵⁵

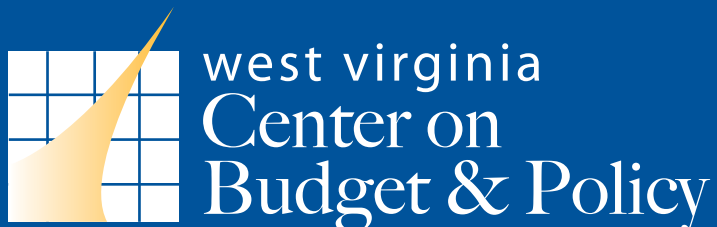
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- 15 In this figure, persons receiving public assistance include those with income from SSI, TANF, and other welfare programs, and those living in a household with a SNAP beneficiary.
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The **West Virginia Center on Budget and Policy**'s mission is to use research and analysis to advance the well-being of West Virginia communities, and to promote and support the essential role of government in improving the quality of life in the state.



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