

# West Virginia Business & Economic

# REVIEW

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West Virginia University College of Business and Economics

## *Recession Rumblings 2001*

### **Will there be a recession?**

Economic data through the end of 2000 suggest that the U.S. economy is edging closer to recession. Real GDP growth in the fourth quarter of 2000 was just 1.4 percent (the lowest growth rate since the second quarter of 1995). Consumer confidence dropped precipitously at the end of 2000, and real retail sales during the Christmas season were barely above year-ago levels. U.S. manufacturing activity has been contracting since late summer of 2000.

Sounds like a compelling case for a recession beginning in the fourth quarter of 2000, right?

Maybe not, according to the preliminary data. While the real GDP growth rate for the fourth quarter is an advance estimate (and will be revised), it nonetheless suggests that the overall economy was still growing. Preliminary estimates of nonfarm payroll jobs continued to rise during the last three months of 2000. Inflation-adjusted personal income rose during November and December, after falling during October. However, while this preliminary evidence suggests that the national economy expanded during the fourth quarter, during the early months of the 1990-1991 recession the preliminary evidence suggested the same thing (and led us astray).

At this early stage, the national slowdown is primarily concentrated in manufacturing. Indeed, production in this sector has been declining since late summer 2000. If declines in manufacturing spread to the rest of the economy, that will likely produce declines in aggregate economic indicators, which will signal the start of a recession. The bottom line here is that the risks of a recession in 2001 are significant, but it's not clear yet whether or not a recession has begun.

### **How did West Virginia do in the 4th quarter of 2000?**

According to preliminary seasonally adjusted data, the state posted solid payroll job growth during the fourth quarter (up 1.4 percent at an annual rate, compared to the previous quarter), with gains in both goods-producing and service-producing sectors. Construction job gains in the fourth quarter drove the surge in goods-producing jobs, while mining and manufacturing registered job losses. Job gains in transportation, communications, and utilities; finance, insurance, and real estate; and services combined to push service-producing employment higher in the fourth quarter. Preliminary estimates currently show the state's seasonally adjusted unemployment rate bouncing up to 5.6 percent in the fourth quarter, after hitting 5.2 percent in the third quarter of 2000.

Preliminary data on the state job market suggest that West Virginia is still growing, although overall gains during 2000 were slow. With the national economy on the edge of recession and state growth slowing, West Virginia is also in danger of falling into recession during 2001. How severe this might be for the state depends on a number of factors, including the severity of the potential national downturn. Many forecasting firms, including Standard & Poor's DRI, expect the national economy to avoid a recession this year. However, if a national recession hits, Standard & Poor's DRI expects it to be similar in magnitude and length to the mild 1990-1991 downturn.

A mild national recession would likely produce something similar for West Virginia. We would see net job losses, little or no income growth, and higher rates of unemployment. But West Virginia faces homegrown risks, which could exacerbate a mild downturn. Most of these are connected to four of our largest industries: coal mining, chemical products manufacturing, steel manufacturing, and electric power generation. Each of these industries faces intense competitive pressures (both nationally and internationally) as well as the threat of increased environmental regulation. A national downturn would depress demand in each of these sectors and new regulatory requirements imposed at the same time could magnify existing pressures.

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Finally, a severe national downturn, driven by large cutbacks in consumer spending and business investment in response to high debt burdens and a massive loss of consumer and business confidence, would impose similarly debilitating job and income losses on the state.

## *A Reveiw of Business Cycle Basics: Expansions and Contractions*

With the national economy rapidly losing steam, it's a good time to review our business cycle basics. What is a business cycle? Who decides when recessions begin and expansions end? When was the last recession, anyway?

Contrary to popular belief, U.S. recessions and expansions are not defined or dated by any federal agency. Instead, when economists refer to specific months as peaks or troughs in aggregate economic activity, they are talking about turning points chosen by the Business Cycle Dating Committee of the National Bureau of Economic Research (NBER). Founded in 1920, the NBER is a private, nonprofit, nonpartisan research organization dedicated to promoting a greater understanding of how the economy works.

As defined by the NBER, business cycles are sustained, recurrent swings in the level of aggregate economic activity. A business cycle has two parts: an expansion and a contraction (or recession). An expansion is a period of general increases in the **level** of overall economic activity. A recession is a period of general declines in the **level** of economic activity. A business cycle peak marks the transition from expansion to recession. A business cycle trough marks the change from recession to expansion.

It's important to keep in mind that for a pattern of economic activity to be considered an expansion (or recession), it must be multi-dimensional. That means it must meet certain minimum conditions regarding dispersion, depth, and duration. Dispersion is the requirement that an expansion or recession be widespread. In the case of a recession, it is not enough for the level of activity in a few sectors to decline. The decline must be apparent in a large number of sectors and across a large number of economic indicators. In practice, this means that we focus attention on several aggregate measures of economic activity, like total employment, total production, total personal income, real GDP, and total sales, among numerous others.

Further, an expansion or recession must have an amplitude similar to other clearly recognizable cycles. In other words, a recession must meet a minimum level of severity (typically measured by the drop in activity from the peak to the trough).

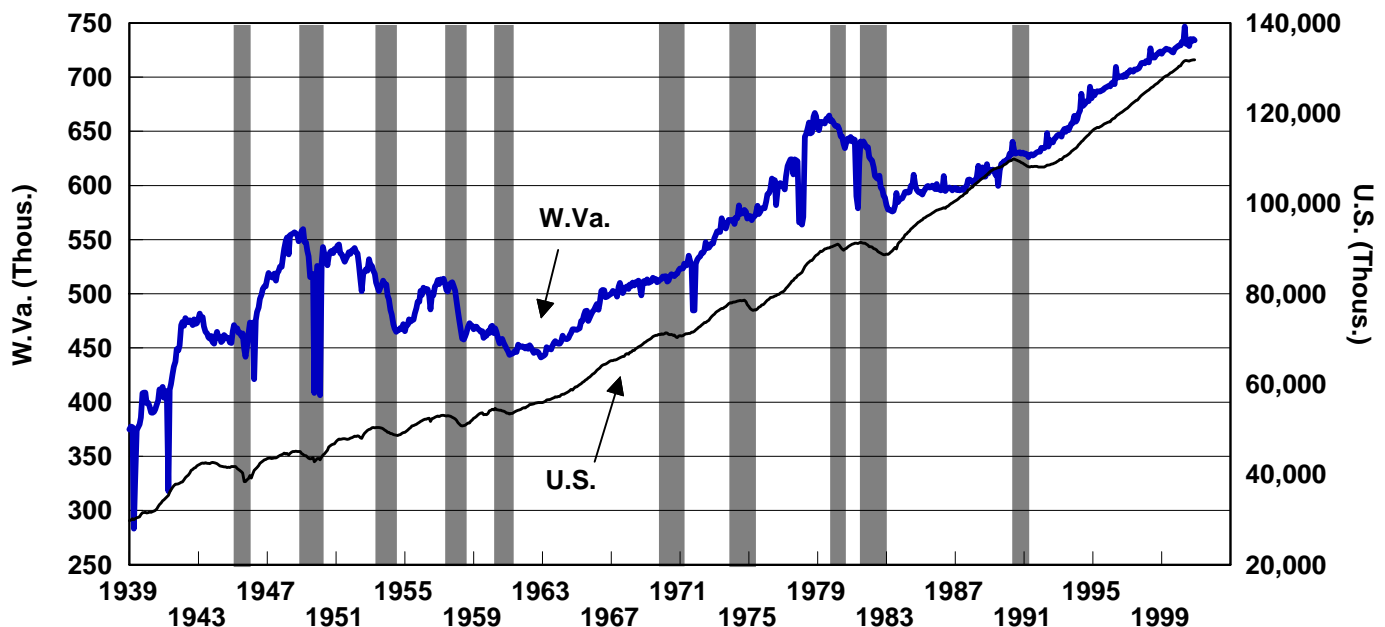
Finally, the overall movement in the economic aggregates must be sustained for a minimum length of time. Temporary declines (or increases) in the aggregate measures are not enough. Six months is generally the minimum length allowed for a recession or expansion.

Figure 1 shows U.S. business cycles from 1939 to the latest, with recessions shaded. The figure also includes U.S. and West Virginia jobs during that period. As the figure shows, the number of jobs generally rises during expansions and falls during recessions, as we would expect.

Note that the peak and trough dates do not exactly match up with the highs and lows in the number of payroll jobs. This is because expansions and recessions are defined using many indicators of economic activity, besides the number of jobs.

**Figure 1**

**W. Va. and U.S. Total Nonfarm Jobs: 1939-2000  
(Seasonally Adjusted, U.S. Recessions Shaded)**



**Table 1**

**Table 1**  
**U.S. Business Cycles from 1945 to Present**  
**NBER Chronology**

<b>Trough</b>	<b>Peak</b>	<b>Recession Duration (Months)</b>	<b>Expansion Duration (Months)</b>
October 1945	November 1948	—	37
October 1949	July 1953	11	45
May 1954	August 1957	10	39
April 1958	April 1960	8	24
February 1961	December 1969	10	106
November 1970	November 1973	11	36
March 1975	January 1980	16	58
July 1980	July 1981	6	12
November 1982	July 1990	16	92
March 1991		8	—
Average		11	50

**Source:** [www.nber.org](http://www.nber.org)

Further, overall movements in employment in West Virginia do not always match up well with the established national business cycle. Differences in the state's industrial mix influence the degree to which West Virginia follows the national business cycle. As the state becomes more diversified (with an industrial mix more similar to the national average), it will tend to follow national business cycles more closely than it has in the past.

Table 1 shows U.S. business cycle peak and trough dates for the post WWII period. As the table shows, most recessions have lasted less than one year (with the exception of the 1973-1975 and the 1981-1982 downturns, which lasted 16 months). On average during this period, expansions have lasted a little over four years.

Our current U.S. expansion has lasted significantly longer than average. Indeed, as of December 2000, the current expansion has lasted 117 months (or nine years and nine months), making it the longest running expansion on record (and the record goes back to the 1850s).

While we do not know yet if the current expansion has ended, it is clear that the national economy is as close to recession as it has been for several years. Even so, a recession is not necessarily in the cards at this point. The Federal Reserve reduced interest rates aggressively during January 2001, and this will help support overall economic growth. The recession rumblings we have witnessed during early 2001 are troubling, but it is still possible that the storm will pass us by.

George W. Hammond, Ph.D.  
 Director, West Virginia Economic Outlook

# Spotlight on Jobs

## ***Why do measures of employment matter?***

One of the first questions we ask a new acquaintance is: What do you do for a living? In many ways, our job defines our social and economic status. In addition, for most people, income (and thus purchasing power) is tightly linked to employment, through wages and fringe benefits.

It comes as no surprise that employment trends are generally considered a crucial indicator of national, regional, and local economic performance. Regions with strong job growth tend to have correspondingly strong rates of income and output growth and lower unemployment rates. Regions with weak job growth tend to have slower rates of income gains and higher unemployment rates.

## ***How is employment measured?***

While it is clear that jobs are important, sorting out the various measures of employment is far from simple. To understand the complexities, try this pop quiz:

### ***Pop Quiz!***

What was total employment in West Virginia in 1998?

- (A) 719,200
- (B) 744,730
- (C) 678,568
- (D) 877,900
- (E) 547,234
- (F) 718,500
- (G) all of the above

The cynical reader will have guessed (G), and in fact that is correct. Each of the figures listed above is (or was) a published 1988 employment estimate for West Virginia. It has probably occurred to you by now that the question was awfully vague. After all, what exactly did it mean by employment? In fact, that is the heart of the matter. Each of the estimates above uses a different definition of employment. Let's explore some of the major issues that impact measures of employment.

## ***Issues Important to Measuring Employment***

### **Place of Work vs. Place of Residence**

One of the key distinctions in measuring employment is the difference between counting the number of *employed residents* and counting the number of *jobs on the payrolls* of establishments. For example, I am a WV state resident and am on the payroll of West Virginia University. Therefore, I would be included in a count of the number of employed state residents. I would also be included in a

count of the number of jobs on the payrolls of establishments located in the state.

But suppose that I were a resident of Morgantown, but instead of working in Morgantown, I held a job in Pittsburgh. I would still be counted as an employed resident of West Virginia, but now I would be counted on the payroll of an establishment located in Pennsylvania. The bottom line is that although I would still be included in a count of employed West Virginia residents, I would not be included in a count of the number of workers on the payrolls of establishments located in West Virginia.

### **Full-time vs. Part-time vs. Multiple Jobs**

There is no distinction in any of the major measures of employment between full- and part-time employment. Workers on the payrolls of establishments are counted equally, whether they are full- or part-time workers. Further, employed residents are counted as employed even if they only hold a part-time job.

Further, workers who hold two part-time jobs at establishments in West Virginia are counted twice in establishment-related measures. In contrast, employed residents are counted once, even if they hold two part-time jobs.

### **Gross Flows vs. Net Employment**

All of the measures of employment considered in this article focus on net employment (or net jobs). That means that gross job losses are subtracted from gross job gains, leaving us with a net employment level for the month or year.

### **Snapshots and Averages of Snapshots**

All measures of employment are snapshots taken at a particular point in time. For many measures, as discussed below, annual data is the average of 12 monthly snapshots (which are taken for the week including the 12<sup>th</sup> of the month). However, this is not true for all measures. For instance, County Business Patterns data is the snapshot taken during March of the year.

### **Revisions, Revisions, and More Revisions**

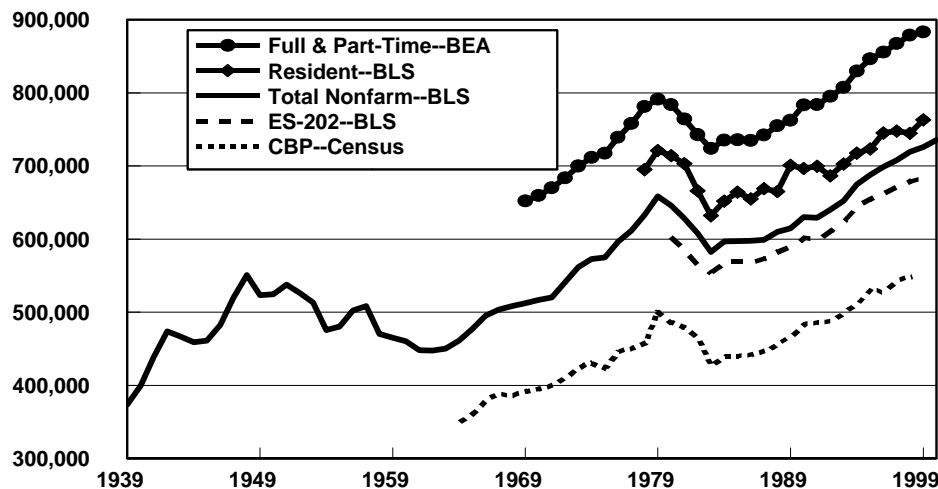
Many measures of employment are regularly revised. Why? Primarily because the preliminary estimates are based on survey data that are nearly (but not quite) complete. As the complete survey data are included, the preliminary estimates are revised. Further, several major series are further adjusted to account for better information which is available only with long lags.

### **Five Important Measures of Employment**

Now let's look closely at five important measures of employment, each with its own particular characteristics. The five measures are: (1) County Business Patterns (CBP) jobs; (2) ES-202 jobs; (3) total nonfarm payroll jobs; (4) resident employment; and (5) Bureau of Economic Analysis (BEA) full- and part-time employment. Figure 1 shows the levels and time trends of the employment measures discussed in this article. As you can see, the levels of the various measures vary considerably. However, it is also obvious that each of the measures has a similar overall time trend.

Figure 1

### Five Measures of West Virginia Employment



Employment estimates from CBP are generally the lowest. This is primarily because CBP data exclude most government employees. A bit larger than the CBP estimates are the ES-202 estimates, which include government jobs. The nonfarm payroll employment data also include government jobs (as well as railroad workers, student workers, church workers, and others excluded from unemployment compensation systems), but exclude farm workers and the self-employed. Resident employment (from the Current Population Survey) includes farm workers and the self-employed, but this is a count of employed residents, not jobs. Finally, BEA full- and part-time employment produces the largest employment estimate of any of our measures. The main reason for this is that it includes both full- and part-time self-employment.

#### Pop Quiz Answers

Now let's look at the solutions to the Pop Quiz. Table 1 (next page) briefly summarizes the characteristics of each employment measure discussed in the following sections.

**(A) 719,200: Total Nonfarm Payroll Employment, as of October 2000, and**

**(F) 718,500: Total Nonfarm Payroll Employment, as of April 1999**

Monthly estimates based on total nonfarm payroll jobs reflect the number of jobs at establishments in the state during the week that includes the 12<sup>th</sup> of the month. Full- and part-time jobs are counted equally. These estimates reflect multiple job holding, so that individuals holding two jobs (for example) are counted twice. Job estimates by this measure are available for nonfarm industries, including private industries and federal, state, and local government. However, this measure excludes the self-employed, proprietors,

unpaid workers in family businesses, domestic workers in private households, and agricultural workers. Further, workers on leave during the survey week (on vacation or sick leave, for instance) are only counted if the leave is paid.

These estimates are produced by the West Virginia Bureau of Employment Programs, Research, Information and Analysis Division, in co-operation with the U.S. Bureau of Labor Statistics. Estimates are produced monthly, seasonally and non-seasonally adjusted, from a survey of nearly 6,000 establishments in the state. Data are available for counties, metropolitan areas (MSAs, CMSAs, etc), states, and the U.S.

Annual data are the average of the non-seasonally adjusted monthly data. Total nonfarm payroll data are regularly revised. Recent estimates are revised multiple times and do not usually become final for two years. This is why the estimate for 1998 employment changed between April 1999 and October 2000.

#### **(B) 744,730: Resident Employment, as of October 2000**

This measure reflects the employment status of West Virginia residents age 16 and older, whether their job is at an establishment located in-state or out-of-state. This measure includes proprietors, the self-employed, unpaid workers participating in family businesses who worked 15 hours or more, and agricultural workers. A resident can be counted as employed only once. Further, residents are counted as employed even if they were temporarily absent from work during the survey week (for instance due to illness or vacation), even if they were absent without pay.

This measure is also produced by the West Virginia Bureau of Employment Programs Research, Information and Analysis Division, in co-operation with the U.S. Bureau of Labor Statistics. These estimates are regularly revised. Resident employment by industry for states is not available on a continuing monthly basis. Data are available for counties, metropolitan areas (MSAs, PMSAs, etc), states, and

**Table 1****Summary Characteristics for Five Common Measures of Employment**

<b>Characteristics of Measure</b>	<b>Nonfarm Payroll Employment</b>	<b>Resident Employment</b>	<b>ES-202 Employment</b>	<b>Full &amp; Part-Time Employment</b>	<b>County Business Patterns Employment</b>
Where measure is taken	Place of work	Place of residence	Place of work	Primarily place of work	Place of work
Measurement date	Week including the 12 <sup>th</sup> of the month	Week including the 12 <sup>th</sup> of the month	Week including the 12 <sup>th</sup> of the month	Mixture of week incl. the 12 <sup>th</sup> of the month and April of the year	Week including the 12 <sup>th</sup> of March of the year
Frequency of publication	Monthly	Monthly	Annually	Annually	Annually
Seasonally adjusted	Available	Available	Not available	Not available	Not available
Coverage and industry detail	Nonfarm payroll, 2-digit SIC for WV	Farm, nonfarm, self-employed, unpaid family workers, all ages 16 and over	Nonfarm payroll covered by unemployment compensation, up to 4-digit SIC for WV	Farm and nonfarm by industry; incl. payroll covered by unemployment and self-employ., up to 2-digit SIC	Nonfarm covered by FICA; private industries; now uses NAICS
Geography	US, states, MSAs, counties in some states	US, states, MSAs, counties	US, states, MSAs, counties	US, states, MSAs, counties	US, states, counties
Regularly revised?	Yes	Yes	No	Yes	No
Publisher	WV Bureau of Employment Programs, Research, Information and Analysis Division, in cooperation with the U.S. Bureau of Labor Statistics	Same as Nonfarm Payroll Employment	Same as Nonfarm Payroll Employment	US Bureau of Economic Analysis	US Bureau of the Census
Web site	<a href="http://www.state.wv.us/bep/">www.state.wv.us/bep/</a>	<a href="http://www.state.wv.us/bep/">www.state.wv.us/bep/</a>	<a href="http://www.state.wv.us/bep/">www.state.wv.us/bep/</a>	<a href="http://www.bea.doc.gov">www.bea.doc.gov</a>	<a href="http://www.census.gov.epcd/cbp">www.census.gov.epcd/cbp</a>
Other names	BLS-790; Employment and Earnings; Current Employment Survey (CES)	Current Population Survey (CPS)	Employment and Wages	BEA Full & Part Time Employment	County Business Patterns Total Employment

the U.S. Estimates are produced monthly, seasonally and non-seasonally adjusted, from a survey of nearly 800 West Virginia households. Annual estimates are the average of monthly, non-seasonally adjusted data.

**(C) 678,568: Total Employment and Wages (ES-202)**

This measure of jobs is derived from reports related to unemployment compensation. It reflects full- and part-time jobs on the payrolls of establishments in the state. Multiple jobholders are counted multiple times. This source covers most jobs, except railroad workers, the self-employed, student workers, most church workers, and unpaid workers in family businesses. In certain cases, agricultural workers and domestic household workers are covered.

This series is produced by the West Virginia Bureau of Employment Programs Research, Information and Analysis Division, in co-operation with the U.S. Bureau of Labor Statistics. Published estimates are annual, so seasonal adjustment is not an issue. Data are available for counties, states, and the U.S. These data are not regularly revised.

**(D) 877,900: Total Full and Part-Time Employment**

This measure includes full- and part-time workers as well as the self-employed. Data are available by industry (at the two-digit industry level for some geographies). BEA uses ES-202 data and augments this with estimates of self-employment (both farm and

nonfarm) from IRS tax records. The self-employed are proprietors of unincorporated businesses, either alone or with one or more partners.

This measure is produced by the U.S. Bureau of Economic Analysis and is included on the Regional Economic Information Service (REIS) CD-ROM, with personal income and population data. Only annual estimates are available for this series, so seasonal adjustment is not an issue. Data are available for counties, metropolitan areas (MSAs, PMSAs, etc), metropolitan and nonmetropolitan county sums within states, states, and the U.S. These data are regularly revised.

**(E) 547,234: County Business Patterns**

This series measures jobs by place of work and reflects employment at establishments covered by the Federal Insurance Contributions Act (FICA). This excludes the self-employed, agricultural workers, and most government workers. These data are now available on the NAICS classification system for the U.S., states, and counties.

Within the County Business Patterns publication, the U.S. Census Bureau produces data on establishments, employment, and total wages for private nonfarm industries; it excludes government jobs. These data are a monthly snapshot of activity during the week including March 12<sup>th</sup>.

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Director, West Virginia Economic Outlook

# The State of the State: W. Va.'s Economic Well-Being Compared to Other States

## Overall Comparison

West Virginia's economy has shown substantial improvement in the 1990s, compared to the 1980s. During the last decade, the state has added jobs at a brisk pace in some growing sectors, generated rising per capita personal income, and dramatically reduced the unemployment rate from its stratospheric peak in the early 1980s. The state has also reported growth in its gross state product (GSP) for the 1990-1998 period, both in real and nominal terms.

However, West Virginia is still far behind other states, with low per capita personal income and an unemployment rate which, though lower in recent years, was the highest in the nation in 1999. Job losses in high-paying industries and a low employment-to-population ratio are some of the factors responsible for the low levels of income per capita in West Virginia as compared to the rest of the nation. Table 1 (page 9) summarizes the economic performance of all 50 U.S. states, the District of Columbia, and the nation, with data on nominal and real GSP, per capita personal income, population, unemployment rates, and nonfarm jobs.

## GSP

West Virginia's nominal GSP grew by 4.4 percent during the 1990-1998 period, ranking the state 41<sup>st</sup> in the nation. Nevada recorded the highest average annual nominal GSP growth rate of 9.0 percent for the 1990-1998 period, followed by Arizona, Utah, Colorado, and Oregon. The national nominal GSP growth rate for the same period was 5.5 percent. In terms of real GSP, Arizona posted the fastest growth rate, which, at 6.6 percent, was more than twice that of the nation. West Virginia, with a 2.6 percent real GSP growth rate, ranked 37<sup>th</sup>. The national average annual real GSP growth rate was 3.2 percent.

## Per Capita Personal Income

The District of Columbia posted the highest per capita personal income (\$39,858) in the nation in 1999, followed by the East Coast states of Connecticut, Massachusetts, New Jersey, and New York. West Virginia, with a per capita personal income of \$20,966, was ranked 50<sup>th</sup>, while the national level of per capita personal income in 1999 was \$28,542.

## Population

According to the latest census, West Virginia's resident population on April 1, 2000 was 1,808,344, compared to 1,793,477 in 1990. The state's population grew by roughly 15,000 residents during the decade, which translates into annual growth of 0.08 percent per year. As Figure 1 shows, the state's population has stabilized in the neighborhood of 1.8-2.0 million residents since 1950.

During the 1990s, Nevada recorded the fastest population gains of any state (5.2 percent per year), while North Dakota registered the slowest population growth (0.05 percent per year). The District of Columbia lost population during the decade. West Virginia barely outpaced North Dakota's rate of population growth during the decade. As Figure 2 (page 8) shows, states in the South and West (especially the Rocky Mountain region) posted the fastest population gains. States in the Midwest and Northeast grew much more slowly during the decade.

## Employment

The state posted the highest unemployment rate in the nation in 1999 at 6.6 percent. Iowa was at the opposite end of the scale, registering an unemployment rate of 2.5 percent—well below the U.S. rate of 4.2 percent. The lowest unemployment rates were concentrated in the upper Midwest, New England, and the southeastern seaboard, as Figure 3 (page 8) shows. The central-southern states and the West registered higher-than-average unemployment rates in 1999, in spite of strong job growth, because they also recorded strong population gains.

Nevada recorded the highest nonfarm job growth rate in the U.S. during the 1990s, with jobs rising by 5.2 percent per year, according to preliminary estimates. Ranked 36<sup>th</sup> nationwide, West Virginia (at 1.6 percent per year) did fairly well in terms of job growth during the same period. However, West Virginia's growth fell well below the national rate of growth of 1.9 percent per year during the decade.

**Figure 1**  
W. Va. Census Counts from 1790 to 2000:  
Resident Population

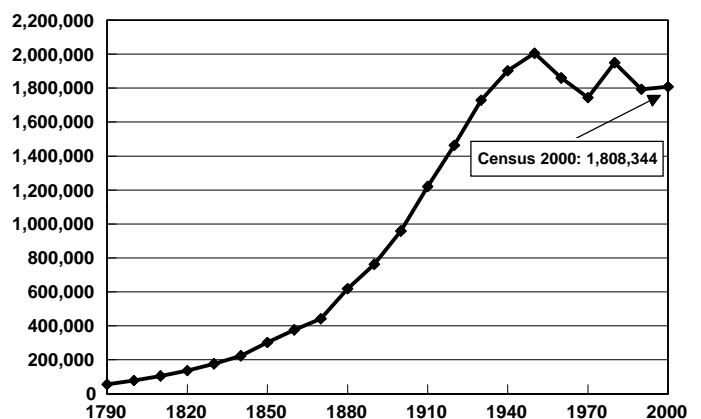
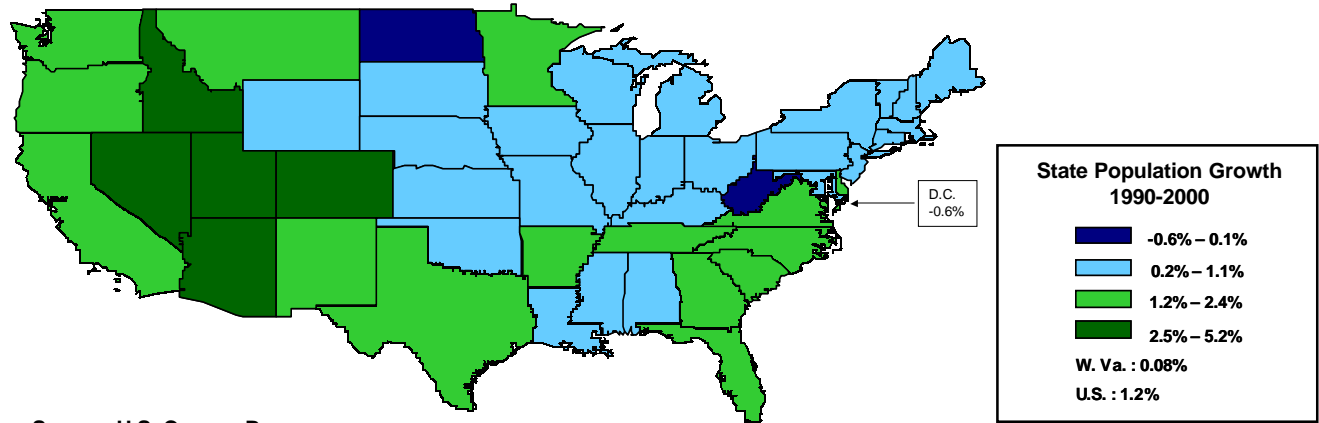


Figure 2

### Average Annual Population Growth Rates: 1990 Census to 2000 Census



Source: U.S. Census Bureau

### Conclusion

Overall, the state's economic performance during the 1990s was entirely respectable, particularly when compared to the 1980s. However, the state continued to lag behind the national average on many important economic indicators. This leaves the state in the awkward position of gradually expanding and improving, but falling further behind the national average.

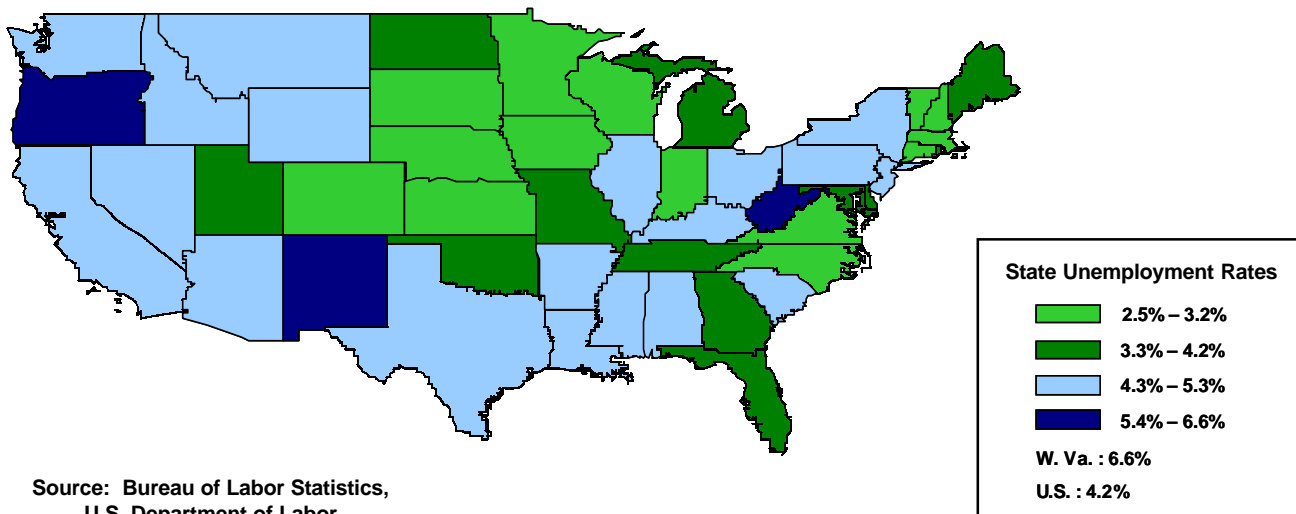
The *West Virginia Economic Outlook 2001* contains additional details on this topic (and many others as well). To purchase this publication (\$15 plus 6% tax for W.Va. residents), please contact Linda Moore by phone at (304) 293-7534 or by email at [linda.moore@mail.wvu.edu](mailto:linda.moore@mail.wvu.edu).

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Figure 3

### State Unemployment Rates: 1999



Source: Bureau of Labor Statistics,  
U.S. Department of Labor



**Table 1**

**Summary Statistics  
for All States and D.C.**

State	Annual Nom. GSP Growth		Annual Real GSP Growth		Per Capita Pers. Income		Annual Pop. Growth		Unemployment Rate		Annual Nonfarm Job Gr.	
	1990-98 (%)	Rank	1990-98 (%)	Rank	1999	Rank	1990-00 (%)	Rank	1999 (%)	Rank	1990-00 (%)	Rank
Alabama	5.5	28	3.2	27	22,987	43	1.0	25	4.8	14	1.8	32
Alaska	-0.3	51	-1.6	51	28,577	18	1.3	17	6.4	2	1.7	34
Arizona	8.7	2	6.6	1	25,189	36	3.4	2	4.4	21	4.3	2
Arkansas	6.1	18	4.0	14	22,244	47	1.3	19	4.5	18	2.4	13
California	4.3	44	2.1	43	29,910	14	1.3	18	5.2	7	1.4	38
Colorado	8.3	4	6.0	5	31,546	7	2.7	3	2.9	45	3.8	5
Connecticut	4.6	38	2.1	44	39,300	2	0.4	47	3.2	38	0.4	49
Delaware	6.6	14	3.2	29	30,778	12	1.6	13	3.5	33	2.0	26
D.C.	3.7	48	0.2	49	39,858	1	-0.6	51	6.3	3	-1.0	51
Florida	6.2	16	3.7	21	27,780	20	2.1	7	3.9	30	2.9	7
Georgia	7.6	6	5.1	9	27,340	23	2.4	6	4.0	28	2.9	6
Hawaii	2.6	50	-0.0	50	27,544	21	0.9	31	5.6	5	0.3	50
Idaho	7.2	8	5.7	7	22,835	46	2.5	5	5.2	8	3.8	4
Illinois	5.5	27	3.4	24	31,145	8	0.8	34	4.3	24	1.3	41
Indiana	5.8	21	3.8	20	26,143	31	0.9	27	3.0	41	1.7	33
Iowa	5.3	30	3.6	22	25,615	34	0.5	43	2.5	51	2.0	25
Kansas	5.1	32	2.9	32	26,824	28	0.8	35	3.0	42	2.2	19
Kentucky	5.9	20	3.8	19	23,237	42	0.9	28	4.5	19	2.2	17
Louisiana	3.9	47	2.2	42	22,847	45	0.6	40	5.1	11	1.9	29
Maine	4.1	46	1.5	48	24,603	38	0.4	46	4.1	26	1.1	43
Maryland	4.6	39	1.9	45	32,465	6	1.0	23	3.5	34	1.2	42
Massachusetts	5.2	31	2.8	35	35,551	3	0.5	41	3.2	39	1.0	44
Michigan	5.6	25	3.1	30	28,113	19	0.7	39	3.8	31	1.5	37
Minnesota	6.1	17	3.9	16	30,793	11	1.2	21	2.8	48	2.2	16
Mississippi	6.0	19	3.8	17	20,688	51	1.0	24	5.1	12	2.1	22
Missouri	5.7	24	3.2	25	26,376	30	0.9	30	3.4	35	1.6	35
Montana	5.0	34	2.9	33	22,019	48	1.2	20	5.2	9	2.8	9
Nebraska	5.6	26	3.5	23	27,049	25	0.8	37	2.9	46	2.0	24
Nevada	9.0	1	6.2	3	31,022	10	5.2	1	4.4	22	5.2	1
New Hampshire	7.1	9	5.2	8	31,114	9	1.1	22	2.7	50	1.9	28
New Jersey	4.9	36	2.5	39	35,551	4	0.9	33	4.6	16	0.8	46
New Mexico	7.3	7	6.5	2	21,853	49	1.8	12	5.6	6	2.5	11
New York	4.4	42	1.9	46	33,890	5	0.5	42	5.2	10	0.5	47
North Carolina	6.6	11	4.3	12	26,003	32	2.0	9	3.2	40	2.3	14
North Dakota	5.0	35	3.2	28	23,313	40	0.1	50	3.4	36	2.0	23
Ohio	5.0	33	2.9	34	27,152	24	0.5	44	4.3	25	1.4	40
Oklahoma	4.4	40	2.5	38	22,953	44	0.9	26	3.4	37	2.2	18
Oregon	7.7	5	6.0	6	27,023	26	1.9	11	5.7	4	2.5	12
Pennsylvania	4.8	37	2.4	40	28,605	17	0.3	48	4.4	23	0.8	45
Rhode Island	4.4	43	1.8	47	29,377	16	0.4	45	4.1	27	0.4	48
South Carolina	5.4	29	3.2	26	23,545	39	1.4	15	4.5	20	2.0	27
South Dakota	6.2	15	4.3	13	25,045	37	0.8	36	2.9	47	2.8	10
Tennessee	6.7	10	4.3	11	25,574	35	1.6	14	4.0	29	2.1	20
Texas	6.6	13	4.8	10	26,858	27	2.1	8	4.6	17	2.9	8
Utah	8.4	3	6.1	4	23,288	41	2.6	4	3.7	32	4.0	3
Vermont	4.1	45	2.2	41	25,889	33	0.8	38	3.0	43	1.4	39
Virginia	5.7	23	3.0	31	29,789	15	1.4	16	2.8	49	1.8	30
Washington	6.6	12	4.0	15	30,392	13	1.9	10	4.7	15	2.3	15
<b>West Virginia</b>	<b>4.4</b>	<b>41</b>	<b>2.6</b>	<b>37</b>	<b>20,966</b>	<b>50</b>	<b>0.1</b>	<b>49</b>	<b>6.6</b>	<b>1</b>	<b>1.6</b>	<b>36</b>
Wisconsin	5.8	22	3.8	18	27,390	22	0.9	29	3.0	44	2.1	21
Wyoming	3.4	49	2.7	36	26,396	29	0.9	32	4.9	13	1.8	31
United States	5.5	—	3.2	—	28,542	—	1.2	—	4.2	—	1.9	—

Sources: Gross State Product (GSP) and per capita personal income estimates are from the Bureau of Economic Analysis <www.bea.doc.gov>.

Average annual population growth rate was calculated using April 1, 1990 and April 1, 2000 estimates of resident population from the Census 2000 release <www.census.gov>.

Unemployment rate and nonfarm job growth estimates are from the Bureau of Labor Statistics <www.bls.gov>.

All growth rates are average annual growth rates.

Nonfarm payroll (BLS) data for 2000 is preliminary.

# Census Releasing 2000 Redistricting Data

## New Data Coming

The next major milestone on the Census 2000 data release calendar is being passed with the release of the redistricting data to the states. Block, tract, and voting district maps, including population counts for small areas, will be released along with selected demographic and racial characteristics. Although there are many uses for this data, one of the most important is redistricting. By law the Census Bureau has to provide redistricting data to the states within one year of Census day, April 1, for the purpose of redrawing districts. The Census expects this to be completed by March. The states are then responsible for delineating their congressional and legislative boundaries.

## New Data Geography

The data being released will cover counts at the block level and above. A block, representing about 100 people, is the smallest geographical unit in the Census. The new maps being sent out will show Census 2000 results for blocks and block groups. Block maps show boundaries for Census tracts that represent approximately 4,000 people, including townships, counties, incorporated places, and American Indian areas. Voting district outline maps will show voting districts with both precincts and wards.

## New Data Demographics/Race

The population data being released will report both total population and population 18 years and over. The count will also be broken down by 63 race categories, non-Hispanic population for the same race categories, and Hispanic or Latino population. There will be more racial categories reported from the 2000 Census than in years past because the Census is now counting people who have chosen more than one racial category. There will be 6 single-race categories including "other" and 57 additional categories for people who choose more than one race. Table 1 shows the total population data for the U.S. and West Virginia.

## Uses

The maps provide a visual representation of population density and where the population centers are located. Private organizations, businesses, government agencies, public institutions, and charities all find the maps and population counts valuable in a variety of ways. They will be used by people in local communities to help with such activities as grant writing, charting the town's growth, and planning upgrades to the local hospital. This data can be summed to give the populations of towns, cities, and counties. Businesses use this information in choosing a location to maximize potential customers by reducing drive times and ensuring proximity to the people most likely to utilize their goods or services. If a company wishes to open a county branch, these maps would provide assistance in choosing a population center that could support it. This information is also used by banks in their lending decisions. Similarly, a service that mainly supports small farms and rural homeowners could use these maps to select areas that are less densely populated and would yield a larger

number of possible customers. Advertising companies could use these maps to select billboard locations or advertising campaigns.

The block, tract, and voting district maps should be available in PDF format on the Census web site by May 2001. Visit <http://factfinder.census.gov/> to use the interactive database. The WVU Bureau of Business and Economic Research can also answer census questions. Contact [chris.condon@mail.wvu.edu](mailto:chris.condon@mail.wvu.edu).

Chris Condon  
Data Base Specialist

**Table 1** **Census Results:**  
**Changes in W.Va. and U.S. Population since 1990**

Population	1990	2000	Percent Change
W.Va. Population	1,793,477	1,808,344	+0.8
U.S. Population	248,709,873	281,421,906	+13.2

## West Virginia Census Data Available on BBER Website

When the U.S. Census Bureau releases the Census 2000 redistricting data for West Virginia (expected on March 26), the West Virginia University Bureau of Business and Economic Research will make it immediately available on its new website set up to mirror and archive this and future Census 2000 data releases. The Bureau site will become active just after the Governor acknowledges receipt of the Federal Express Census package delivery. This site will allow visitors to directly access West Virginia census data without having to navigate the entire U.S. Census Bureau site or experiencing delays due to Internet congestion.

The redistricting data to be posted on the Bureau site provides the Census 2000 population counts for the entire state, as well as maps showing detail down to the block level. Besides offering West Virginia data, the site provides U.S. Census Bureau press notices and a link to the U.S. Census Bureau. For the next three years, the Census Bureau will be releasing data gathered from the 2000 Census, and the Bureau will update its census site as each release occurs. The site will also post breaking news and updates from the U.S. Census Bureau. The website address is:

<<http://www.bber.wvu.edu/census.htm>>.

# West Virginia and United States Economic Indicators

	99 Q4	00 Q1	00 Q2	00 Q3	00 Q4	1998	1999	2000
<b>United States</b>								
Real GDP (Bil. \$1996 Chain-Wtd.)	9,084.1	9,191.8	9,318.9	9,369.5	9,401.5	8,515.6	8,875.7	9,320.4
% Change	8.3	4.8	5.6	2.2	1.4	4.4	4.2	5.0
Consumer Price Index (CPI-U) (1982-84=100)*	168.3	169.9	171.7	173.1	174.0	163.0	166.6	172.2
% Change	2.5	4.0	4.3	3.2	2.2	1.6	2.2	3.4
Total Nonfarm Payroll Employment (Mil.)	129.8	130.6	131.6	131.6	131.8	125.8	128.8	131.4
% Change	2.2	2.6	2.9	0.2	0.6	2.6	2.3	2.0
Unemployment Rate (%)	4.1	4.0	4.0	4.0	4.0	4.5	4.2	4.0
Initial Claims for Unemployment Ins. (Thous.)	286	276	288	306	337	316	296	302
Industrial Production (1992=100)	142.1	144.4	147.1	148.4	148.0	133.7	139.2	147.0
% Change	5.7	6.7	7.9	3.5	-1.1	4.8	4.1	5.6
Capacity Utilization Rate	81.6	82.0	82.6	82.4	81.3	82.1	81.2	82.1
Housing Starts (Mil.)	1,689	1,732	1,605	1,528	1,558	1,621	1,676	1,606
Retail Sales (Bil.\$)	3,102	3,198	3,212	3,256	3,259	2,746	2,996	3,231
% Change	9.9	13.0	1.7	5.6	0.4	5.1	9.1	7.9
Federal Funds Rate*	5.31	5.68	6.27	6.52	6.47	5.35	4.97	6.24
Ten-Year Treasury Note Rate*	6.14	6.48	6.18	5.89	5.57	5.26	5.64	6.03
<b>West Virginia</b>								
Total Nonfarm Payroll Employment (Thous.)	727.3	730.2	736.5	731.5	734.1	719.2	726.0	735.6
% Change	2.0	1.6	3.5	-2.7	1.4	1.6	0.9	1.3
Mining	21.0	20.9	21.2	21.1	20.5	23.7	21.3	20.5
% Change	2.6	-1.9	5.9	-3.1	-9.7	-3.7	-10.1	-3.8
Construction	33.1	33.6	33.2	32.8	34.5	34.2	33.6	33.8
% Change	3.3	6.6	-5.1	-4.3	22.4	-2.0	-1.8	0.6
Manufacturing	82.1	82.7	81.9	81.6	81.1	82.4	81.6	80.7
% Change	3.7	2.8	-3.8	-1.5	-2.1	1.0	-1.0	-1.1
Trans., Comm. and Public Utilities	38.4	38.2	37.9	36.8	37.5	38.4	38.1	37.4
% Change	1.4	-2.7	-2.4	-11.1	7.4	-1.3	-0.8	-1.8
Trade	163.1	163.6	164.3	165.1	164.9	162.6	163.3	164.2
% Change	1.5	1.2	1.8	1.9	-0.5	0.6	0.4	0.6
Finance, Ins. and Real Estate	29.6	29.6	29.6	29.6	29.7	28.7	29.8	29.5
% Change	-1.8	-0.4	0.0	0.9	1.4	1.8	3.8	-1.0
Services	219.7	221.5	222.3	222.4	225.8	208.3	217.5	226.2
% Change	4.4	3.3	1.5	0.2	6.4	4.7	4.4	4.0
Government	140.2	140.2	146.1	142.1	140.0	140.8	140.9	143.3
% Change	-1.2	-0.1	17.9	-10.5	-5.9	1.2	0.1	1.7
Unemployment Rate (%)	6.3	5.5	5.5	5.2	5.6	6.6	6.6	5.5
Initial Claims for Unemployment Ins. (Thous.)	1,506	1,439	1,509	1,522	1,772	1,625	1,579	1,561
Average Weekly Hours Coal Mining	42.4	44.1	44.5	45.1	46.5	44.4	43.2	45.0
Average Weekly Hours Manufacturing	41.9	41.9	41.4	41.2	40.6	41.6	41.6	41.3
Average Hourly Earnings Coal Mining (\$)	19.34	19.34	19.44	19.76	19.69	19.73	19.34	19.56
% Change	-3.0	0.0	2.1	6.9	-1.5	0.0	-2.0	1.1
Average Hourly Earnings Manufacturing (\$)	14.28	14.35	14.51	14.71	14.76	13.70	14.08	14.58
% Change	2.2	2.1	4.5	5.5	1.4	4.2	2.7	3.6
Real Personal Income (Mil. 1996\$)	36,458	36,315	36,882	36,979	n/a	35,600	36,131	n/a
% Change	2.4	-1.6	6.4	1.1	n/a	3.1	1.5	n/a
Wage and Salary	17,827	17,524	17,947	18,007	n/a	17,397	17,646	n/a
% Change	2.0	-6.6	10.0	1.3	n/a	2.6	1.4	n/a
Other Labor	2,352	2,327	2,360	2,359	n/a	2,377	2,362	n/a
% Change	-1.2	-4.1	5.8	-0.1	n/a	1.0	-0.6	n/a
Proprietors	2,252	2,281	2,293	2,288	n/a	2,172	2,226	n/a
% Change	5.1	5.2	2.2	-1.0	n/a	4.7	2.5	n/a
Dividends, Interest, and Rent	6,742	6,813	6,876	6,900	n/a	6,324	6,575	n/a
% Change	8.0	4.3	3.8	1.4	n/a	6.1	4.0	n/a
Transfer Payments	8,148	8,180	8,245	8,253	n/a	8,232	8,186	n/a
% Change	-1.1	1.6	3.2	0.4	n/a	0.6	-0.6	n/a
Value of Total Housing Permits (Mil.\$)	427	363	300	283	371	327	382	329
W. Va. Export-Weighted U.S. Dollar (1980=100)*	136.6	139.6	144.3	147.1	152.1	136.7	136.7	145.8
% Change	-3.0	9.2	14.1	8.0	14.2	7.4	0.0	6.7

Notes: West Virginia average weekly hours, average hourly earnings, and initial claims for unemployment insurance data are obtained from the West Virginia Bureau of Employment Programs and seasonally adjusted using seasonal factors derived by the Bureau of Business and Economic Research. West Virginia employment and the state unemployment rate are seasonally adjusted by the West Virginia Bureau of Employment Programs. Personal income data are seasonally adjusted by the Bureau of Economic Analysis, U.S. Dept. of Commerce. Components may not sum to totals due to rounding. All percent changes are measured from the previous period and expressed as annual rates. Value of total housing permits data are from the Bureau of the Census, U.S. Dept. of Commerce.

\* Not seasonally adjusted.

n/a=Not available.



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