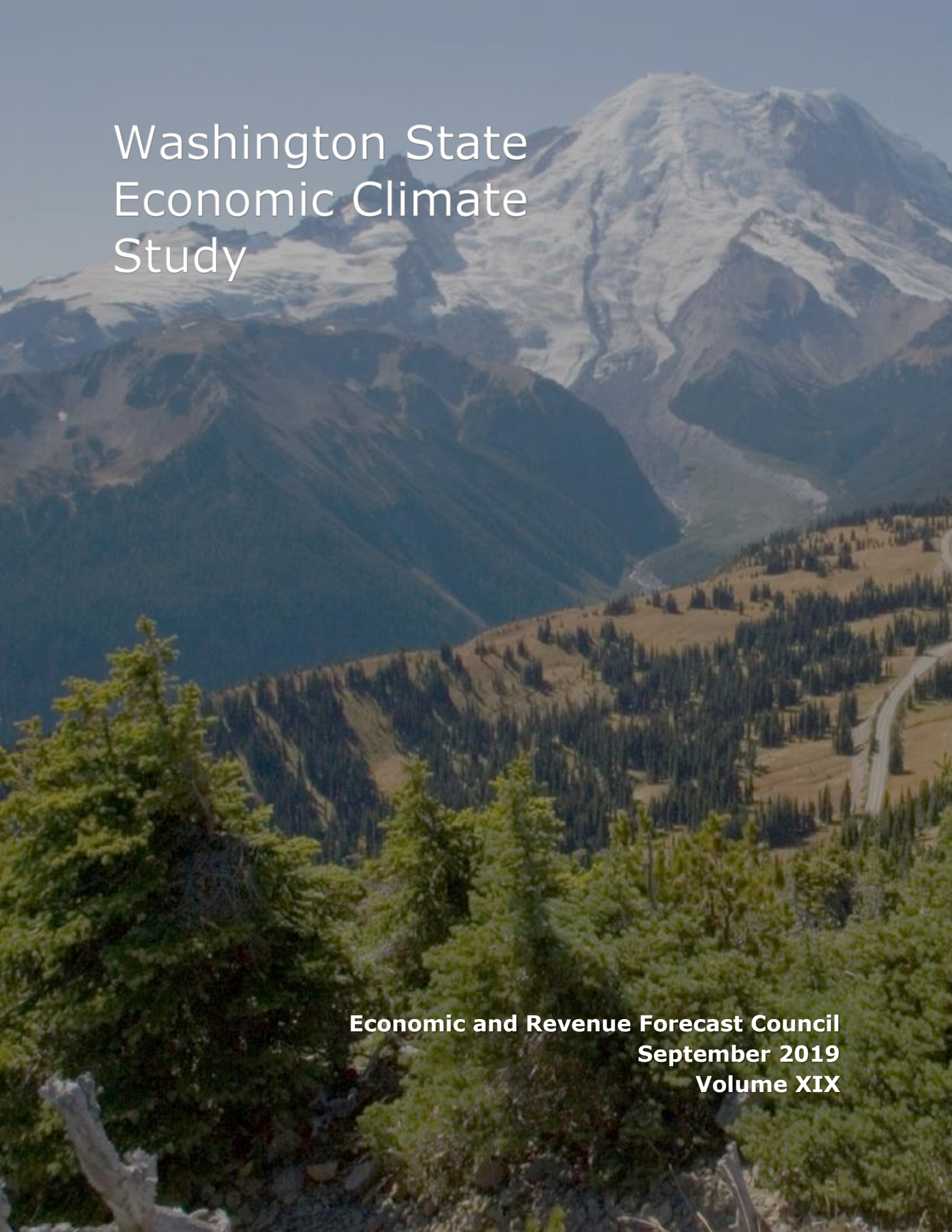

Washington State Economic Climate Study

Economic and Revenue Forecast Council
September 2019
Volume XIX

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Editor's Note

The 1996 Legislature passed Substitute House Bill 2758 creating the Economic Climate Council (ECC). The ECC is responsible for selecting a series of benchmarks that characterize the competitive environment of the state. The benchmarks are indicators of the quality of life, education and skills of the workforce, infrastructure, and the costs of doing business.

Washington State Economic Climate Study

Prepared by the
Economic and Revenue Forecast Council

September 2019
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Chapter 1: Innovation Drivers

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Executive Summary

- **The Economic Climate Study is a snapshot of Washington's performance and ranking both compared to other states and to its own history.**
- **The rankings are from best to worst from the perspective of businesses with a rank of one being the best.**
- **Washington's composite rank remained at 1st in the nation.**

Washington's Economic Climate Study

The study provides information about our competitive standing in relation to the other states

This report updates the State of Washington's Economic Climate Study, last published in November 2018. The study provides information about Washington's competitive standing in relation to other states. It is based on the premise that, while improving productivity is primarily the domain of Washington's business sector, appropriate state and local policies, particularly those relating to education, public safety, infrastructure, cost of doing business, and the environment, are essential to promote higher standards of living.

Overall, forty-eight indicators are presented

The benchmarks considered in this study focus on the four themes: innovation drivers, business performance, economic growth and competitiveness, and quality of life. The category "Innovation Drivers" is broken into three sub-groups: talent and workforce, entrepreneurship and investment, and infrastructure. The category "business performance" is further broken down into business prosperity and cost of doing business. Overall, forty-eight indicators are presented.

Recent Performance

Washington's rank remained at 1st in the nation

Washington's rank improved in twenty cases, worsened in eleven cases, and stayed the same in fourteen. Three indicators were not updated in this year's climate study. Three of the four major categories in the climate study improved in rank from last year, and one remained unchanged.

Innovation Drivers improved from 4th to 2nd in the nation.

Washington's rank in *Innovation Drivers* improved to 2nd best in the nation. This was the best performing category in this year's study. Six of *Innovation Driver*'s indicators improved while five worsened. Seven indicators remained unchanged. The Entrepreneurship and Investment subcategory improved the most, with four indicators improving. Establishment birth rate had the most significant change in terms of rank, improving 23 spots to 1st in the nation.

Business Performance remained at 6th.

Business Performance remained at 6th best in the nation. Of the eight indicators updated in *Business Performance*, Washington's rank improved in five, worsened in two, and remained unchanged in one. Two indicators improved, one worsened, one remained unchanged, and two were not updated in the subcategory *Business Prosperity*. Three of the four indicators improved in the subcategory *Cost of Doing Business,* while one worsened. State and Local Tax Collections Per $1,000 Personal Income had the largest change in rank, dropping from 19th to 23rd in the nation.

Economic Growth and Competitive-ness improved from 5th to 4th highest

Washington's ranking in the *Economic Growth and Competitiveness* category rose from 5th highest to 4th highest in the nation. Of the ten indicators in this category, five improved, three worsened, and two remained unchanged. Washington's ranking in unemployment rate had the largest change; dropping from 35th to 42nd highest in the nation.

Quality of Life improved to 14th in the nation

Quality of Life improved three places to 14th in the nation in this year's study. The state's rank improved in four instances, worsened in one, and remained unchanged in four. Air Quality was the worst performing indicator, falling from 25th best to 33rd best. Drinking water was the most improved indicator, increasing significantly from 6th to 2nd in the nation.

This is a snapshot of Washington's performance

This report is a snapshot of Washington's ranking both compared to other states and to its own history. This analysis begins with a description of each indicator followed by a chart. Associated tables can be found at the end of each chapter. Each table ranks the states based on performance and each chart shows how Washington has fared over history. In each case, the ranking is from best to worst with a rank of one being the best.

National Ranking Index

This year's study includes an index which ranks every state

The 2019 Washington State Economic Climate Study includes the composite score of every state in the nation. These scores are then ranked in order to gauge Washington's economic competitiveness with more accuracy.

The composite score equally weights each of the four chapters and effectively takes the average of the four. Each chapter's rank is the average of the subcategories or indicators within it. This

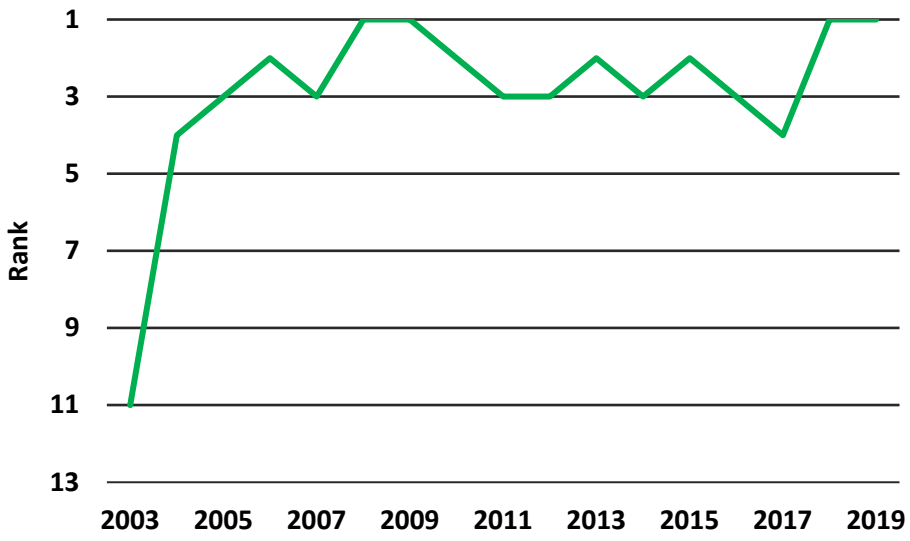
equal weighting approach was selected to minimize subjectivity regarding the importance of any given measure in constructing the composite state scores. The drawback to weighting in this manner is that indicators in different chapters have weights that may not appear reasonable when compared. In chapters with only a few indicators, each measure is weighted more heavily than in chapters with a relatively large number of indicators.

Each state's composite score is ranked for comparison

After each state's indicators have been compiled into a composite score, these scores are then ranked. The composite score for each state equally weights each chapter and each chapter is an average of the indicator ranks that it contains. The composite score is therefore a rough approximation of where the state tends to rank on average instead of an actual ranking itself. Therefore, it is possible for two states to have almost identical composite scores. For example, Vermont and New York have composite scores of 25.7 and 25.9, respectively. These scores do not mean that Vermont and New York both rank 25th, they merely both tend to rank about 25th *on average*. In fact, Vermont and New York ranked 28th and 29th respectively in 2019. No composite score will actually be 1st or 50th because scores will converge around the average score of 25. This index will rank states based on how much they outperform or underperform the average score of 25. For example, the best composite score in the nation in 2019 is Washington with 18.3 while the worst is Mississippi with 32.6. The new index creates a rank that more accurately compares Washington to the rest of the nation than the composite score alone.

Figure ES.1: Washington Overall Rank

Washington has consistently ranked in the top five over the past decade



Source: ERFC, data through 2019

Washington's composite score ranked best in the nation

Washington's 2019 composite score of 18.3 means that Washington tends to rank around 18th in any given indicator on average. While this can be used to evaluate Washington's performance over time, it does not actually mean that Washington is the 18th best state. 18.3 is actually the lowest composite score in the nation, which makes Washington the best state in the nation based on the indicators in the 2019 Washington State Economic Climate Study.

Table ES.1: Washington Overall Rank

Year	Rank
2002	11
2003	11
2004	4
2005	3
2006	2
2007	3
2008	1
2009	1
2010	2
2011	3
2012	3
2013	2
2014	3
2015	2
2016	3
2017	4
2018	1
2019	1

Source: ERFC, data through 2019

Table ES.2
Executive Summary
Current and Five-Year Average Rankings

Indicator / Benchmark	Rank Current	Rank 5Y Avg
Innovation Drivers	***2***	***3***
Talent and Workforce		
Total Public Two and Four Year Combined College Participation Rate	31	30
Education Attainment: Completed 9th Grade or Less	24	24
Education Attainment: Completed Four Years of High School or More	16	16
Education Attainment: Completed Bachelor's Degree or More	11	11
Research Doctorates Awarded Per Capita	35	35
Migration Rate	6	6
H-1B Visas	2	3
Entrepreneurship and Investment		
Per Capita University Research and Development Spending	16	17
Per Capita Industry Research and Development Spending	5	5
Per Capita Government Research and Development Spending	24	19
Patents Issued Per 100,000 Residents	3	3
Venture Capital Investment	5	5
Establishment Birth Rate	1	14
Infrastructure		
Interstate Miles in Poor Condition	43	43
FAA Air Traffic	45	41
Households with a Broadband Internet Subscription (Percent)	1	2
Unlinked Passenger Trips Per Capita	6	7
Rail Freight Value	18	19
Business Performance	***6***	***5***
Business Prosperity		
Foreign Exports	5	3
Foreign Exports Excluding Transportation Equipment	15	14
High Wage Industries' Share of Total Employment	12	13
Growth in High Wage Industries' Share of Total Employment	9	2
Value Added per Hour of Labor in Manufacturing (weighted)	16	8
Value Added per Hour of Labor in Manufacturing (unweighted)	6	5
Cost of Doing Business		
Electricity Costs	1	1
State and Local Tax Collections Per $1,000 Personal Income	23	16
Unemployment Insurance Costs	34	37
Workers' Compensation Premium Costs	35	33

Table ES.2 (continued)
Executive Summary
Current and Five-Year Average Rankings

Indicator / Benchmark	Rank	
	Current	5y Avg
Economic Growth and Competitiveness	***4***	***7***
Per Capita Personal Income	8	10
Per Capita Personal Income Growth Rate	2	2
Relative Value of $100	43	42
Total Employment Growth Rate	5	6
Median Household Income	2	6
Unemployment Rate	42	36
Housing Affordability Index	42	44
Income Spent on Rent	36	34
Average Wage	4	8
Per Capita GDP	7	9
Quality of Life	***14***	***18***
Property Crime	46	49
Violent Crime	19	20
Arrest Rates for Violent Crime	21	22
Air Quality	33	22
Drinking Water	2	12
Toxins Released	20	19
State Health Index	9	10
State Parks and Recreation Areas	10	11
State Arts	41	45
Public Library Service	3	5

Table ES.3
Executive Summary
Changes in Benchmark Performance and Rank

Indicator / Benchmark	Performance	Rank
Innovation Drivers		
Talent and Workforce		
Total Public Two and Four Year Combined College Participation Rate	Worsened	Unchanged
Education Attainment: Completed Less than 9th Grade	Improved	Worsened
Education Attainment: Completed Four Years of High School or More	Improved	Unchanged
Education Attainment: Completed Bachelor's Degree or More	Improved	Worsened
Educational Attainment: Research Doctorates Awarded	Worsened	Improved
Migration Rate	Worsened	Worsened
H-1B Visas	Improved	Improved
Entrepreneurship and Investment		
Per Capita Spending in Research and Development, University	Improved	Unchanged
Per Capita Spending in Research and Development, Industry	Improved	Improved
Per Capita Spending in Research and Development, State Government	Improved	Improved
Patents Issued Per 100,000 Population	Worsened	Unchanged
Venture Capital Investment	Improved	Improved
Establishment Birth Rate	Improved	Improved
Infrastructure		
Interstate Miles in Poor Condition	Worsened	Worsened
FAA Air Traffic Delays	Worsened	Worsened
Households with a Broadband Internet Subscription (Percent)	Improved	Unchanged
Unlinked Passenger Trips Per Capita	Worsened	Unchanged
Rail Freight Value	Improved	Unchanged
Business Performance		
Business Prosperity		
Total Foreign Exports	Worsened	Worsened
Foreign Exports Excluding Transportation Equipment	Worsened	Unchanged
High Wage Industries' Share of Total Employment	Improved	Improved
Growth in High Wage Industries' Share of Total Employment	Improved	Improved
Value Added per Hour of Labor in Manufacturing (weighted)	Not Updated	Not Updated
Value Added per Hour of Labor in Manufacturing (unweighted)	Not Updated	Not Updated
Cost of Doing Business		
Electricity Prices	Improved	Improved
State and Local Tax Collections Per $1,000 Personal Income	Improved	Worsened
Unemployment Insurance Costs	Improved	Improved
Workers' Compensation Premium Costs	Improved	Improved
Economic Growth and Competitiveness		
Per Capita Personal Income	Improved	Unchanged
Per Capita Personal Income Growth Rate	Improved	Improved
Regional Price Parities - Relative Value of $100	Worsened	Worsened
Total Employment Growth Rate	Improved	Unchanged
Real Median Household Income	Improved	Improved
Unemployment Rate	Improved	Worsened
Housing Affordability Index	Worsened	Improved
Income Spent on Rent	Worsened	Worsened
Total Average Wages	Improved	Improved
Real Per Capita GDP	Improved	Improved

Table ES.3 (continued)
Executive Summary
Changes in Benchmark Performance and Rank

Indicator/Benchmark	Performance	Rank
Quality of Life		
Property Crime Rate	Improved	Improved
Violent Crime Rate	Worsened	Unchanged
Arrests Per Violent Crime	Improved	Unchanged
Air Quality	Worsened	Worsened
Drinking Water	Improved	Improved
Toxins Released	Improved	Improved
State Health Index	Improved	Unchanged
State Parks and Recreation Areas	Not Updated	Not Updated
State Arts	Improved	Improved
Public Library Service	Worsened	Unchanged

Table ES. 4

Executive Summary

Ranking Index

	2015	2016	2017	2018	2019
Alabama	48	46	43	44	45
Alaska	39	45	44	45	44
Arizona	25	39	36	36	36
Arkansas	49	49	47	47	48
California	21	18	22	25	26
Colorado	3	7	8	7	5
Connecticut	11	13	10	11	17
Delaware	18	15	20	21	22
Florida	29	30	27	30	34
Georgia	41	37	38	37	39
Hawaii	37	35	37	42	43
Idaho	30	27	24	13	25
Illinois	26	25	31	27	15
Indiana	23	22	18	12	11
Iowa	9	10	7	10	10
Kansas	22	29	30	23	20
Kentucky	42	40	42	43	46
Louisiana	36	47	49	49	49
Maine	40	32	35	35	38
Maryland	28	20	17	14	23
Massachusetts	7	4	1	2	4
Michigan	19	16	16	16	18
Minnesota	5	2	3	3	3
Mississippi	50	50	48	48	50
Missouri	31	28	28	29	24
Montana	33	38	39	34	30
Nebraska	4	6	9	5	6
Nevada	46	41	40	40	41
New Hampshire	20	12	5	4	8
New Jersey	32	31	33	33	33
New Mexico	47	48	50	50	47
New York	24	26	19	26	29
North Carolina	27	21	23	28	27
North Dakota	1	5	11	9	9
Ohio	16	17	25	17	19
Oklahoma	43	42	46	41	37
Oregon	10	8	6	8	7
Pennsylvania	34	36	32	31	31
Rhode Island	35	33	34	32	42
South Carolina	45	43	41	38	40
South Dakota	12	14	14	19	16
Tennessee	38	34	29	39	32
Texas	13	19	26	24	14
Utah	6	1	2	6	2
Vermont	15	23	15	20	28
Virginia	14	9	12	15	13
Washington	**2**	**3**	**4**	**1**	**1**
West Virginia	44	44	45	46	35
Wisconsin	17	24	13	22	21
Wyoming	8	11	21	18	12

Source: ERFC, data through 2019

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Chapter 1: Innovation Drivers – Summary

- **Washington ranks 2nd best in the nation in *Innovation Drivers* this year. All eighteen indicators in this category were updated; six improved, five worsened, and seven remained unchanged.**
- **In the subcategory *Talent and Workforce*, Washington's rank improved in two indicators, worsened in three, and was unchanged in two.**
- **In the subcategory *Entrepreneurship and Investment*, the state's rank improved in four indicators, worsened in none, and remained unchanged in two.**
- **In the subcategory *Infrastructure*, Washington's rank did not improve in any indicators, worsened in two, and remained unchanged in three.**

Talent and Workforce

Public Two and Four Year College Combined Participation Rate

Combined two- and four-year college participation rates allow more accurate comparisons

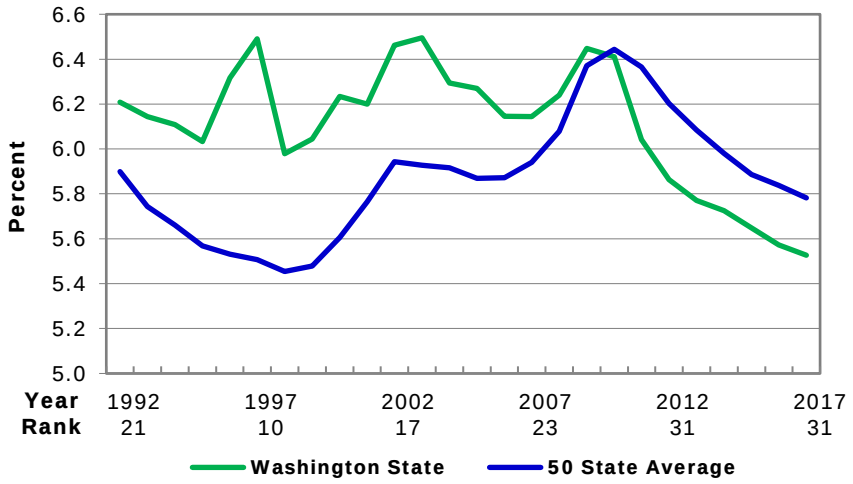
Washington, more than most states, relies heavily on the community college system to provide the first two years of a college education. As a result, Washington and states with similar policies have higher than average two-year participation rates and lower than average four-year participation rates. Since two- and four-year participation rates presented separately give a skewed view of Washington's overall participation rate, this report combines the two statistics. With this adjustment, states that are more reliant on community college systems can be better compared to other states.

Washington's combined participation rates have been declining below the U.S average.

Historically, Washington's public two- and four-year college participation rate has been higher than the 50-state average. In the fall of 2011, however, the 50-state average rate surpassed that of Washington for the first time in the history of this index, at 6.4 percent compared to Washington's 6.0 percent after both stayed at 6.4 percent in 2009 and 2010. Both the Washington and the 50-state average participation rates have been declining since 2010. In 2017, Washington's participation decreased from 5.6 percent to 5.5 percent, still slightly less than the 50-state average of 5.8. However, this year the states ranking remained the same at 31st. Washington's average participation rate from

2013-17 is 5.7 percent, just below the 50-state average of 5.9 and ranks 30th among the states.

Figure 1.1: Public Two and Four Year College Combined Participation Rate



Source: National Center for Education Statistics, U.S. Department of Education; Population Division, U.S. Census Bureau; data through 2017

Education Attainment: Completed Less than 9th Grade

The Census tabulates the percent of the population with less than a 9th grade education

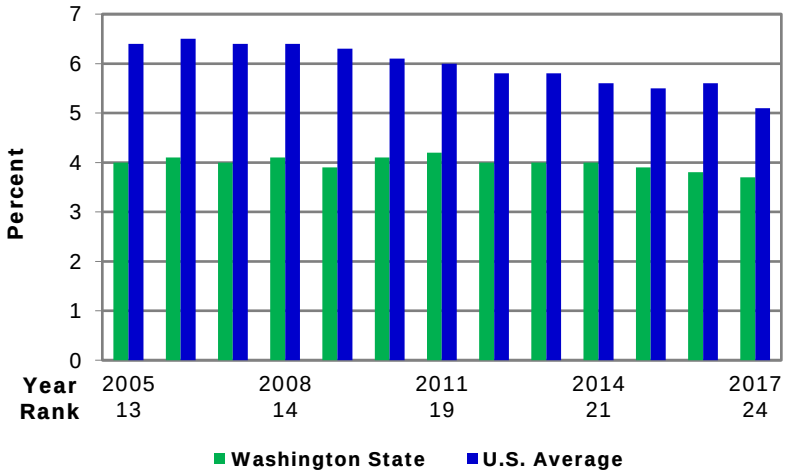
The U.S. Census Bureau, as a part of its annual American Community Survey, tabulates the percent of the population aged 25 years or older than has less than a 9th grade education. The less than 9th grade education indicator gives an important look at the approximate size of the pool of low-skill workers in the state economy. Additionally, this indicator has economic significance on personal incomes. For example, in 2017, a person who did not complete high school earned a median annual income of $23,031, which is significantly less than median incomes earned by workers with more education (Bureau of Labor Statistics). Combined with other educational attainment indicators, this indicator helps give a complete picture of the educational attainment level of the state's population.

In 2017, 3.7 percent of Washington's population has less than a 9th grade education

In 2017, the Census Bureau reported that 3.7 percent of Washington's population aged 25 years or older had less than a 9th grade education, representing a slight decrease from 2016 by 0.1 percent. The state outperformed the national average of 5.1 percent. Because of Washington's decrease in the percentage of its residents with less than a high school education, the state's ranking fell to 24th in the nation, one ranking below what it was in 2016. The state's five-year average rank was also 24th. The state's five-year average of 3.9 percent is lower than the U.S. five-year average of 5.5 percent. As Washington's ranking continues to fall, the percent of those who have completed less

than 9th grade education remains historically lower than the U.S Average.

Figure 1.2: Education Attainment: Completed Less than 9th Grade



Source: U.S. Department of Commerce, Bureau of the Census; data through 2017

Education Attainment: Completed Four Years of High School or More

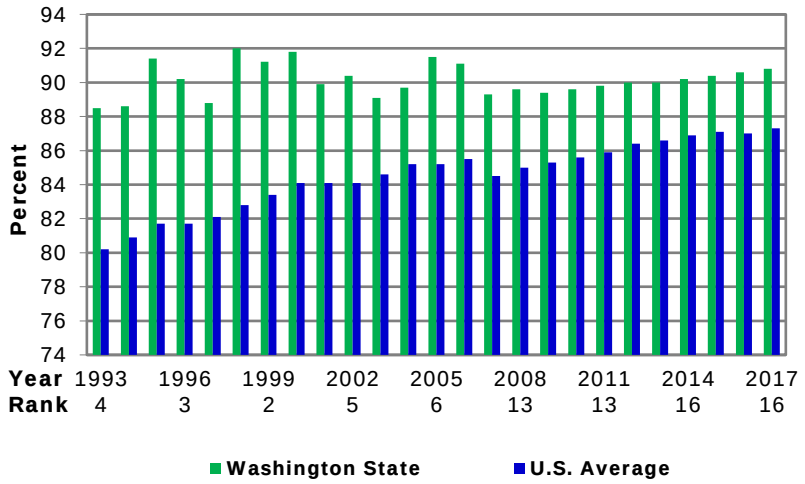
The Census tabulates the percent of the population that has completed high school

In the annual American Community Survey, the U.S. Census Bureau measures the percent of the population aged 25 years or older that has completed four years of high school. A completed high school level degree is necessary to continue toward associates, bachelors, or other advanced degrees, so this indicator can be seen as the portion of the population that has completed four years of high school *or more*. As one indication of the economic relevance of this measure, in 2017 the median annual earnings for a person 25 years of age or older who did not graduate from high school was only $23,031 while that of a person with only a high school diploma was $30,624 (Bureau of Labor Statistics).

In 2017, Washington's rank stayed at 16th

In Washington, 90.8 percent of the population has completed four years of high school or more in 2017, slightly improving from 90.6 percent in 2016. Despite improving, Washington's rank remained at 16th overall. The U.S. average was slightly lower at 87.3 percent in 2017. Historically, Washington used to perform highly in this category. The state ranked in the top five nationally from 1991 (when data started being collected) to 2000. Since then, however, the state's ranking has fallen and has recently averaged 16th over the past five years. The state's five-year average value of 90.4 percent, however, remains 3.5 percentage points higher than the five-year national average of 86.9 percent.

Figure 1.3: Education Attainment: Completed Four Years of High School or More



Source: U.S. Department of Commerce, Bureau of the Census; data through 2017

Education Attainment: Completed Bachelor's Degree or More

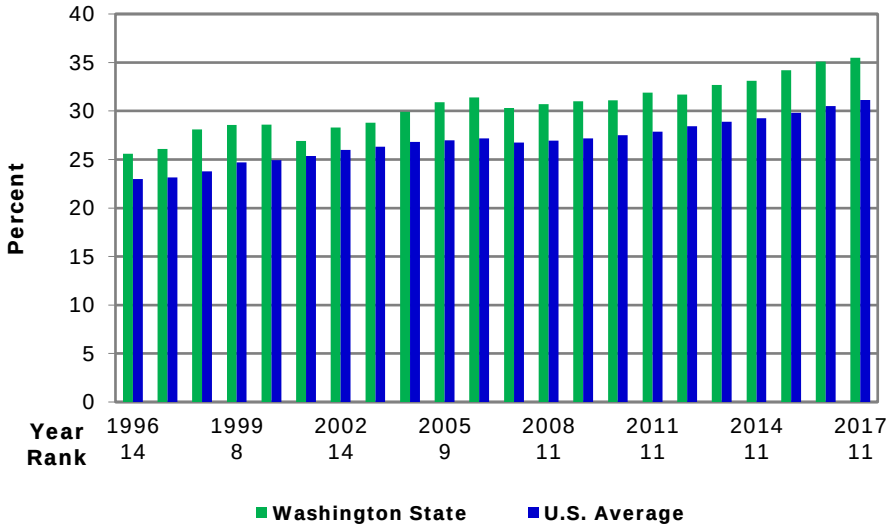
Higher educational attainment is associated with higher earnings

The American Community Survey, conducted by the U.S. Census Bureau, reports the percent of the population aged 25 years or older that has obtained a bachelor's degree or higher. Measuring the number of bachelor's degrees earned by a population is economically important because a population's educational attainment is indicative of the skill of its workforce. Additionally, higher educational attainment is associated with higher earnings. In 2017, for example, the median income for full-time adults with a bachelor's degree is $52,484, while the median was $30,624 for those with only a high school diploma (Bureau of Labor Statistics).

The state's 2017 rank decreased from 2016

After 9 consecutive years of ranking 11th in the country, Washington's rank increased to 10th in the nation for the percent of its population with completed bachelor's degree or more in 2016. In 2017, however, the ranking moved back into its position of 11th. Still, the percentage of residents age 25 or older with a bachelor's degree or more increased in 2017, changing from 35.1 percent in 2016 to 35.5 percent. This is higher than the U.S. average of 31.1 percent. Washington's five-year average is 33.8 percent, placing it at 11th in the nation. The five-year national average is 29.6 percent.

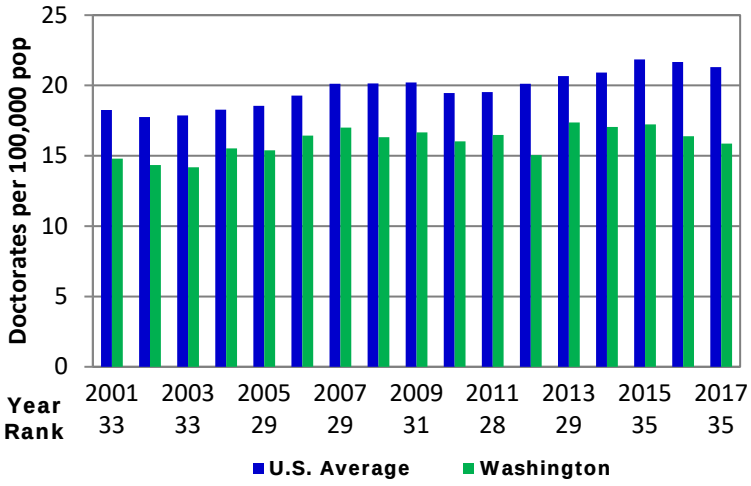
Figure 1.4: Education Attainment: Completed Bachelor's Degree or More



Source: U.S. Department of Commerce, Bureau of the Census; data through 2017

Education Attainment: Research Doctorates Awarded

Figure 1.5: Education Attainment: Research Doctorates Awarded, per 100,000 population age 18+



Source: National Science Foundation, National Center for Science and Engineering Statistics, Survey of Earned Doctorates; data through 2017

The NSF conducts an annual census of research doctorates received

As part of the Survey of Earned Doctorates (SED), the National Science Foundation conducts an annual census of individuals who received a research doctorate in a given academic year from an accredited institution in the United States. A research doctorate,

the most common being a Ph.D., requires the completion of a dissertation or equivalent cumulating project. Professional degrees such as the M.D., D.D.S., O.D., D.V.M., and J.D. are not covered by the SED.

Washington's ranking improved from 37th in 2016 to 35th in 2017.

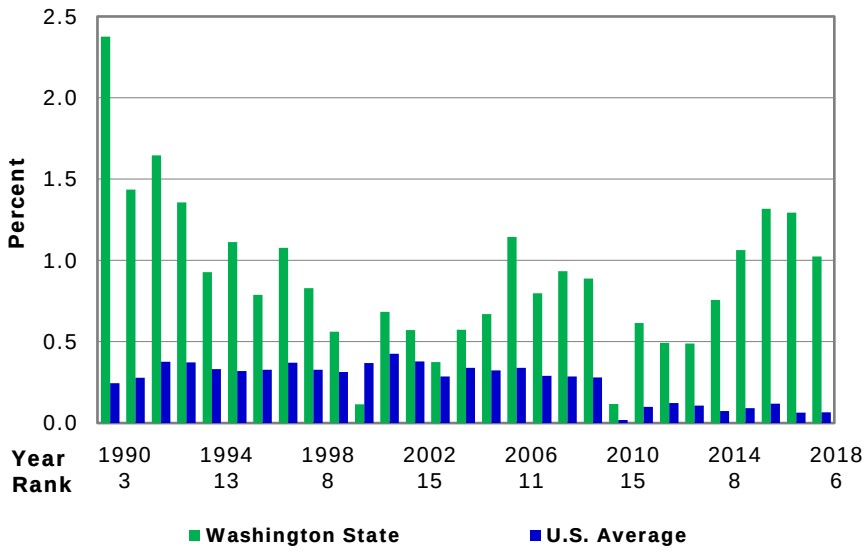
In 2017, the number of individuals who received research doctorates in Washington was 914. Washington awarded 15.9 doctoral degrees per 100,000 population age 18+ in 2017, a 0.5 point decrease from the previous year. Washington's rank improved, however, moving from 37th in the nation to 35th. In 2017, the average amount of doctorates awarded per 1,000 people was 21.3. Washington's five-year average of 16.8 research doctorates awarded ranked 35th among the states and was below the national average of 21.3.

Migration Rate

Washington ranks 6th overall for migration

Washington continues to be a relatively popular destination for international and domestic migration, ranking 6th in terms of total migration in 2018. Washington's 2018 migration rate is significantly higher than the U.S. average migration rate of 0.1 percent. Washington's five-year average migration rate is 1.1 percent, ranking 6th highest among the states listed.

Figure 1.6: Migration Rate



Source: Population Division, U.S. Census Bureau; data through 2018

Well over half of the state's population increase came from migration

Washington population growth in 2018 was 1.48 percent, while the U.S. as a whole was 0.6 percent. Natural increases accounted for 30 percent of the state's growth while 70 percent came from migration. Of the state's immigrants, 40 percent were international and 60 percent were domestic.

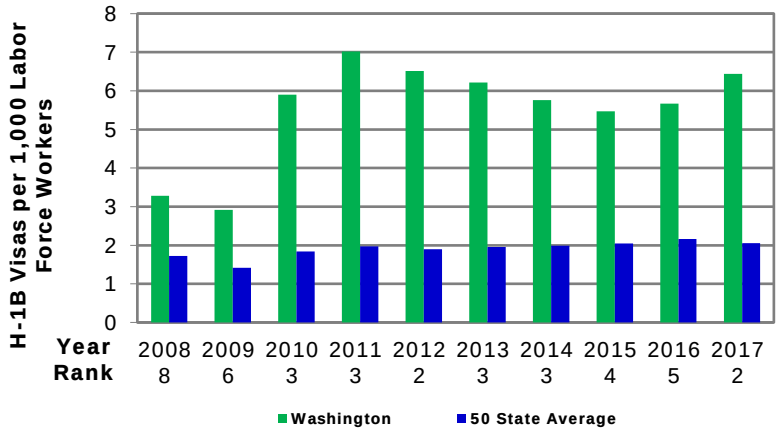
H-1B Visas

In 2017, Washington's ranking increased to 2nd for H-1B visas per 1,000 labor force.

H-1B visas allow U.S. employers to hire foreign workers in "specialty occupations" which are defined as "requiring theoretical and practical application of highly specialized knowledge". The applicant must also have at least a bachelor's degree or its equivalent. These workers are typically hired for highly skilled jobs in technology or other specialized fields. The quantity of H-1B visa applications relative to the size of the labor force within a state is an indicator of the demand for highly skilled labor in innovative fields.

In 2017, Washington's ranking increased to 2nd in the nation from 5th in 2016. 6.44 out of every 1,000 workers in Washington held an H-1B visa. This is an increase from 5.67 in 2016. Washington's five-year average is 5.91, the third highest in the nation. This is also well above the 50 state average of 2.04. Despite the high demand for tech savvy workers, H-1B visa holders make up less than one percent of Washington's current labor force.

Figure 1.7: H-1B Visas



Source: Department of Homeland Security; data through 2017

Entrepreneurship and Investment

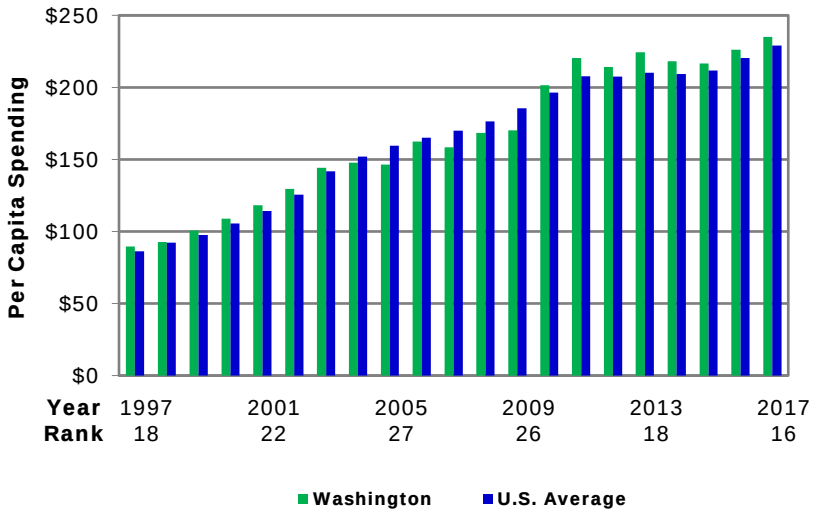
Per Capita Spending in Research and Development, University, Industry, and Government

Research and development is a good indication of innovation

The amount of research and development activity occurring within a state relative to the size of its population provides a good indication of that state's capacity for innovation. Industrial research and development brings new products and processes for continued growth. University and government research and development can provide basic research to support local

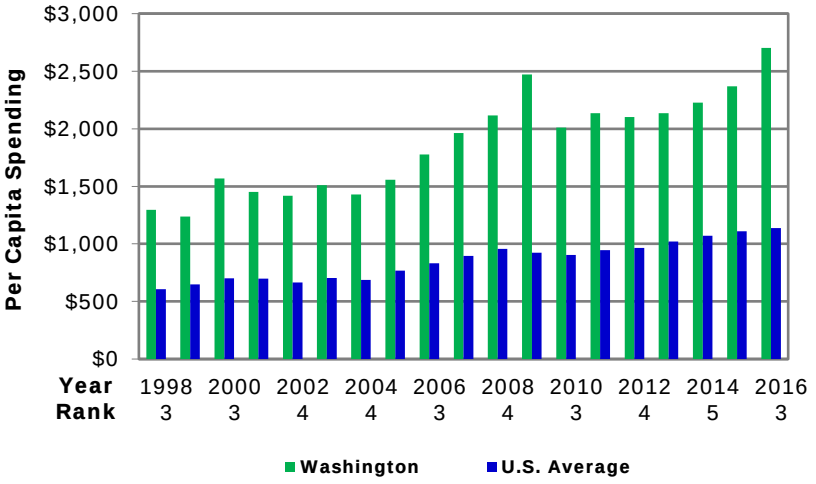
technology hubs and can also attract funding from outside of the state.

Figure 1.8: Per Capita Spending in Research and Development, University



Source: The National Science Foundation; data through 2017

Figure 1.9: Per Capita Spending in Research and Development, Industry



Source: The National Science Foundation; data through 2016

The data is presented on a per-capita basis

The Division of Science Resources Studies (SRS) of the National Science Foundation annually compiles surveys of industries, universities, state government, and other agencies into a report titled National Patterns of Research and Development Resources.

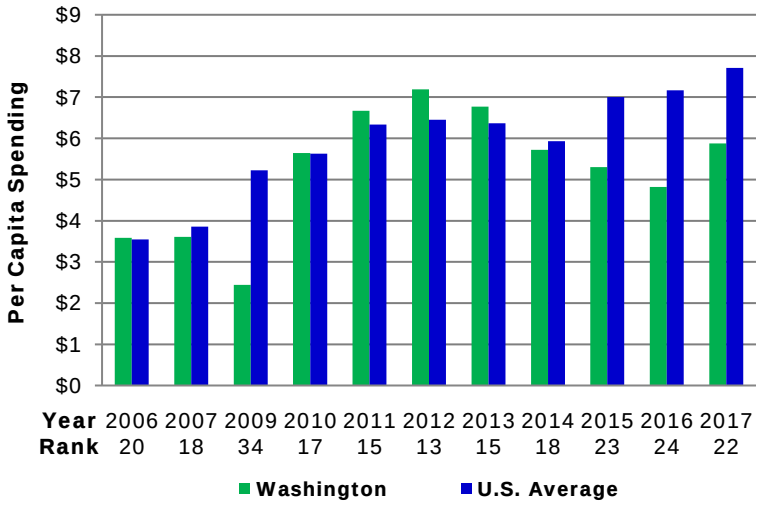
This report indicates the state in which the research and development activity took place regardless of the state of the sponsoring party. The state spending figures for industrial, university, state government, and total research and development spending can be divided by the state populations to derive per capita spending. The most recent year of state spending data available is 2017 for university R&D, 2016 for industry, and 2017 for state government.

WA R&D spending in industry and government typically exceeds the national average.

In 2017, Washington's rank in university R&D spending remained at 16th in the nation. In 2017, Washington universities spent $235 per capita in R&D. Washington remained above the U.S. average of $229 for the sixth year in a row. The five-year average for Washington State was $224.

As for industry R&D, Washington ranks 3rd in the nation. Washington improved its ranking of 5th from 2015. Washington's industry R&D for 2016 was $2,702 per capita, up from $2,368 per capita in 2015. The five-year average for Washington State is $2,307, well above the U.S. five-year average of $1,042.

Figure 1.10: Per Capita Spending in Research and Development, State Government



Source: The National Science Foundation; data through 2017

In 2017, the Washington state government spent $5.87 per capita for R&D. This places Washington at 22nd in the nation, improving two ranks from the year before. Government spending in Washington on R&D has been lower than the U.S. average for four years. This year the U.S. average was $7.71. The five-year average for Washington is $5.70, and the U.S. average is $6.62.

Patents Issued Per 100,000 Population

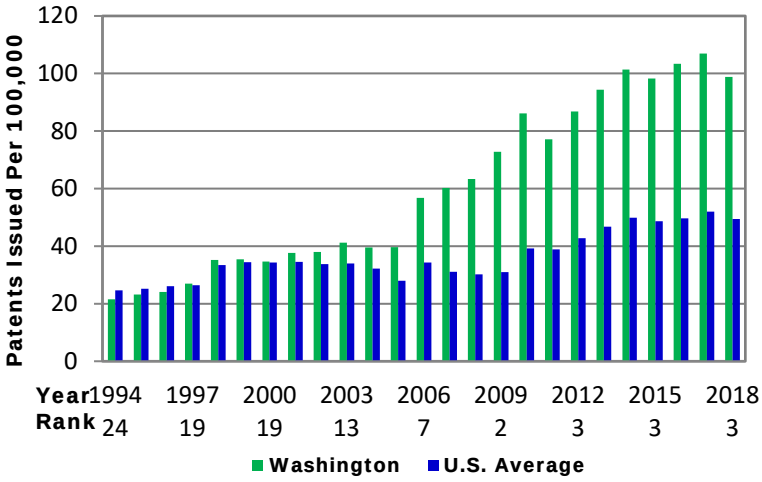
Patents are a good measure of innovation

A patent issued by the United States Patent and Trademark Office grants its holder the sole right to make, use, or sell an invention. The USPTO issues five different types of patents. Some larger states will have more patents issued by virtue of a larger population. Thus, patents issued per 100,000 individuals controls for population differences and measures innovation by private persons, universities, and companies.

Washington ranks 3rd in patents issued

In 2018, Washington had 98.8 patents issued per 100,000 residents. The state's patent issue rate is almost twice the national rate of 49.5, ranking the state 3rd in the nation. In fact, Washington has been ranked 3rd in the nation for the last seven years. The two other states outperforming Washington are California (111.1) and Massachusetts (111.4). The state's five-year average of 101.7 is more than twice the national five-year average of 49.9, helping Washington also rank 3rd in that category.

Figure 1.11: Patents Issued Per 100,000 Population



Source: U.S. Patent and Trademark Office, U.S. Census Bureau, data through 2018

Venture Capital Investment

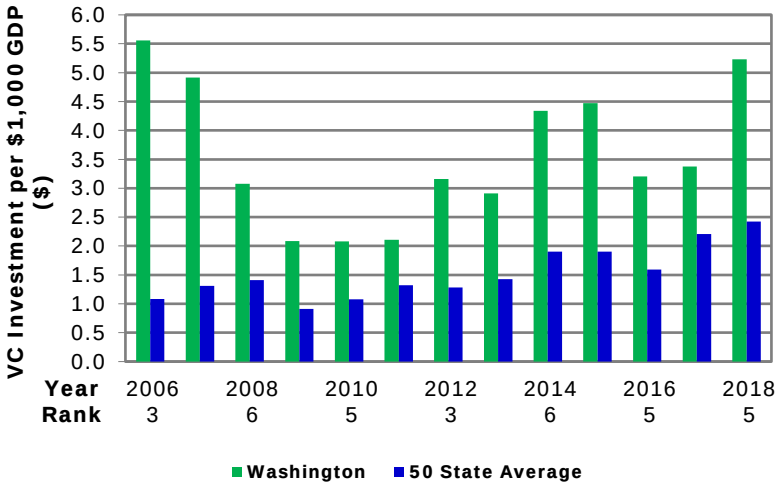
Washington had almost $1.8 billion in venture capital deals in 2017

The National Venture Capital Association (NVCA) tracks the number and value of venture capital deals made across different states and industries. This is reported in the NVCA's annual Yearbook. Venture capital is typically invested in smaller, innovative companies with expectations of high growth. Therefore, venture capital investment is a measure of expectations for growth and innovation in an industry. States with high growth industries such as technology, healthcare, and business/financial services typically attract more investment than

others. This indicator measures how much venture capital is invested for every $1,000 of state GDP.

Washington's venture capital investment measure increased to $5.23 in 2018, with Washington's rank improving to 5th in the nation. Washington's measure of $5.23 is well above the U.S. average of $2.42. In 2018, Washington's share of all venture capital activity in the U.S. was 2.94 percent, the 5th largest in the nation. Washington's five-year average for venture capital investment per thousand GDP is $4.12, 5th in the nation.

Figure 1.12: Venture Capital Investment



Source: National Venture Capital Association Yearbook, data through 2018

Establishment Birth Rate

Washington had an establishment birth rate of 14.4 in 2018

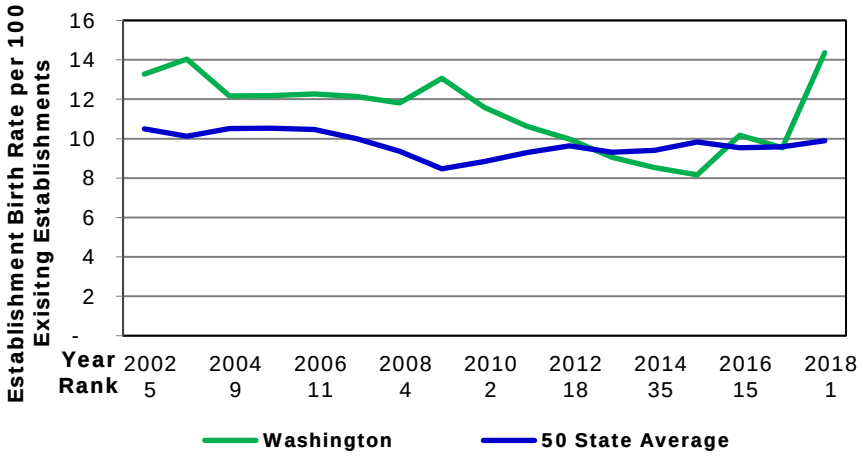
The BLS collects data on establishments through the Census of Employment and Wages and through the Business Employment Dynamics Survey. Birth rate data provides a measure of entrepreneurial activity and growth in new areas of business. The establishment birth rate is the rate of new business establishments per existing 100 establishments. An establishment birth is defined as the first time an establishment begins to pay its first employee. An establishment can be either an entirely new firm or could be a new branch, plant, or expansion of an existing firm. The BLS does not include a seasonal business reopening as a new establishment.

Washington ranked 1st in establishment birth rate in 2018

From 2001 to 2011, Washington's ranking in establishment birth rate was always above 15, and was even 1st in the nation in 2009. After 2012, Washington's establishment birth rate rankings dropped to 30th in 2013, 35th in 2014, and even 44th in 2015. In 2016, however, the birth rate began to increase and improved Washington's rank up to 15th, before dropping slightly to 24th in 2017. In 2018, Washington saw the highest increase in

the nation for establishment birth rates, ranking 1st with a rate of 14.36 percent. This is almost five percentage points more than the year before. Unsurprisingly, 14.36 percent is much greater than the U.S. average of 9.90 percent for 2018. The five-year average for Washington is 10.15, 14th in the nation.

Figure 1.13 Establishment Birth Rate



Source: BLS Quarterly Census of Employment and Wages, BLS Survey of Business Employment Dynamics, data through 2018

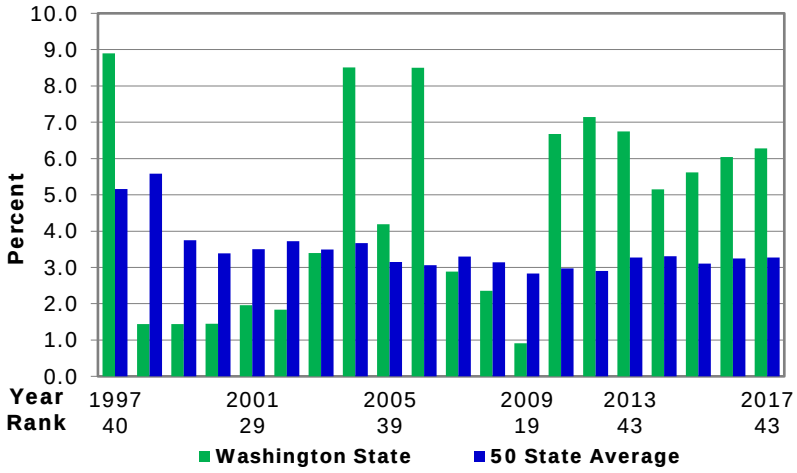
Infrastructure

Interstate Miles in Poor Condition

Since 1990 the FHWA has collected data on highway statistics

Since 1990, the Federal Highway Administration (FHWA) has required states to report road roughness according to the International Roughness Index (IRI), a set of standard codes dictated by the Highway Performance Monitoring System Field Manual for the Continuing Analytical and Statistical Database.

Figure 1.14: Interstate Miles in Poor Condition



Source: Highway Statistics, Federal Highway Administration; data through 2017

This information is then collected and published in a consistent format in the FHWA's Highway Statistics. This indicator reports the percentage of interstate miles that have an IRI of 171 or greater.

Washington's ranking decreased one spot in 2017

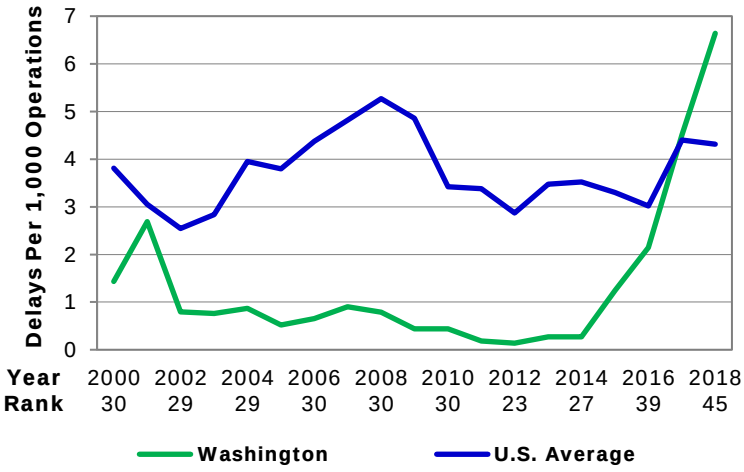
The condition of Washington's roads worsened in 2017, and its ranking dropped to 43rd in the nation. In 2017, 6.3 percent of interstate miles were in poor condition, this is 1.9 times more than the U.S. average of 3.3 percent. In 2016, 6.0 percent of Washington's interstate miles were in poor condition, also above the U.S. average of 3.2 percent. The five-year average is 6.0 percent, placing Washington 43rd in this category as well.

FAA Air Traffic Delays

The FAA provides air traffic information for all FAA contract airports

The Federal Aviation Administration's (FAA) annual Air Traffic Activity and Delay Report provides air traffic information for all airport facilities under contract with the FAA in each state. Air traffic delays can occur at any phase of the flight and are characterized as delays that exceed 15 minutes. For comparison purposes, this indicator measures the number of delays per 1,000 operations in each state.

Figure 1.15: FAA Air Traffic Delays



Source: FAA Air Traffic System Management, Air Traffic Activity and Delay Report; data through 2018

The number of delays in Washington was 6.6 per 1,000, 2.3 higher than the year before.

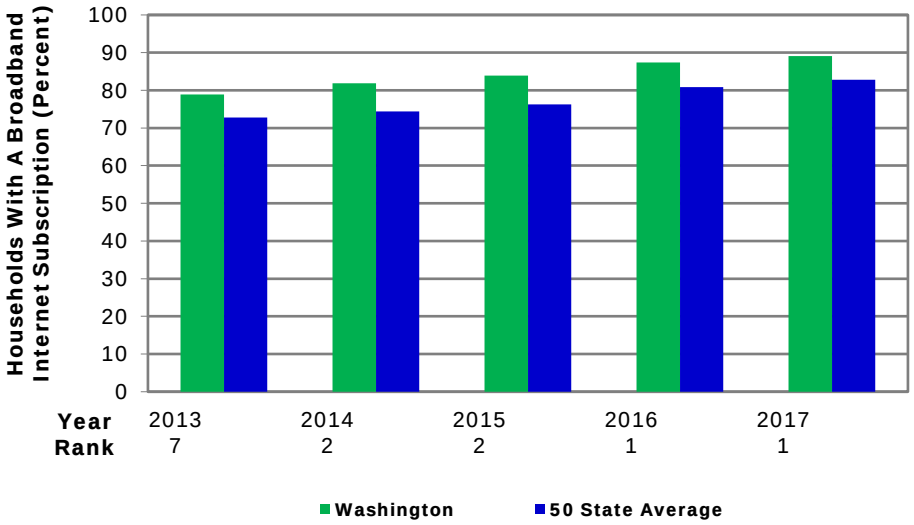
In 2018, the number of delays per 1,000 operations was 6.6, an increase of 2.1 from the year before. This dropped Washington's ranking from 44th place to 45th place. While Washington's five-year average of 3.0 is below the U.S. average of 3.7, it still ranked 41st due to the many states with zero average delays.

Households with a Broadband Internet Subscription (Percent)

This is the first year that this indicator has been used in the climate study.

Broadband infrastructure is an important part of improving economic development, public safety, and education. Now that internet services are a large part of the economy, having access to a broadband subscription is essential to staying aware and educated of the evovling world around us. The United States Census Bureau, as part of its American Community Survey, has listed the percent of households with a broadband internet subscription from each state. This is the first year that this indicator has been used in the climate study.

Figure 1.16: Households with a Broadband Internet Subscription (Percent)



Source: U.S. Census Bureau, American Community Survey, data through 2017

About 9 out of 10 households in Washington have a broadband internet subscription

The percentage of households with a broadband internet subscription has increased across the nation over time. In fact, in the time span between 2013 and 2017, the United States average has increased almost 10 percent (72.81 to 82.79). Washington has experienced these same trends, with its percentage increasing over 10 percent in that same time period (78.90 to 89.10). Washington has also seen very high rankings over the past four years, ranking either first or second in the nation. In 2017, Washington ranked 1st in the nation, and its percentage increased 1.7 percent to 89.10 percent. This value indicates that about 9 out of 10 households in Washington have a broadband internet subscription.

Unlinked Passenger Trips Per Capita

The FTA tracks public transit use

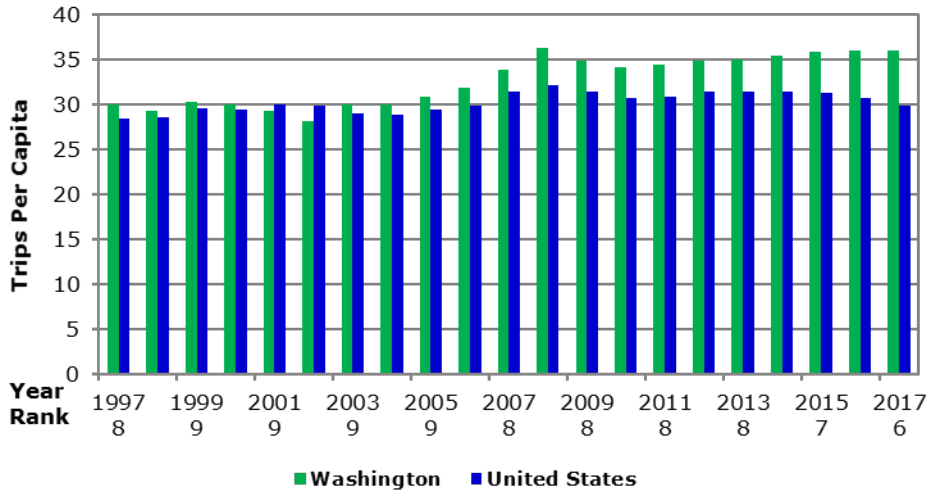
Public transportation systems are a key part of the infrastructure of economically competitive states. The Federal Transit Administration measures public transportation usage through unlinked passenger trips (UPTs), where each leg of passenger's journey counts as a use of the public transit system. For example, if a commuter uses the train and then bus to commute to work, their journey will be recorded as two unlinked passenger trips, as they used public transit twice on their way to work.

Washington ranks 6th in public transit use

Washington's ranking remained the same at 6th in the nation in 2017. Per capita, Washington residents used public transit 36.0 times, which is higher than the U.S. average of 29.9 during the same period. For 17 years Washington has outperformed the U.S.

average. Washington's five-year average is 35.7 trips per capita. The U.S. five-year average is 31.4.

Figure 1.17: Unlinked Passenger Trips Per Capita

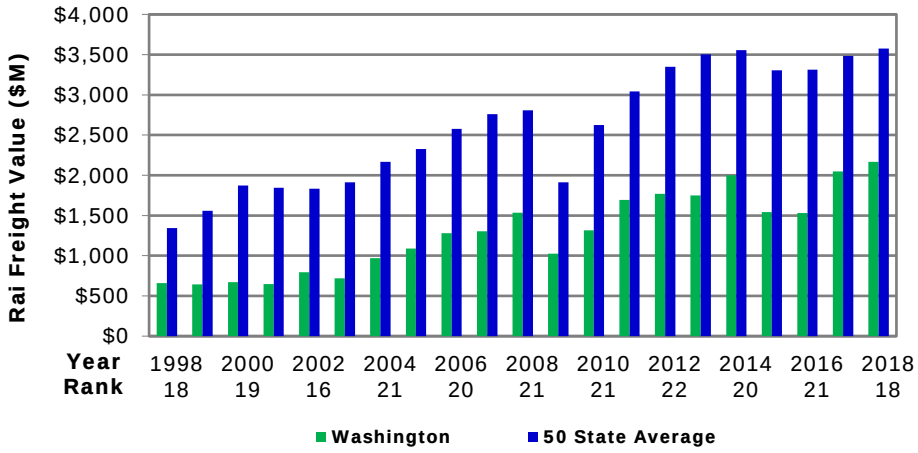


Source: Federal Transit Administration, National Transit Database, data through 2017

Rail Freight Value

The Bureau of Transportation Statistics provides data on the commodity type, port, and dollar value of exports and imports between NAFTA trade partners. This indicator measures the total trade value of goods transported by each state's railways originating from or destined for other states, Canada, and Mexico. Rail freight value measures a state's trade infrastructure and ability to move goods through North America by rail.

Figure 1.18: Rail Freight Value



Source: United States Department of Transportation, Bureau of Transportation Statistics, 2018

In 2018, Washington moved $2.17 billion in freight over railways, ranking 18th in the nation.

In 2018, Washington's railways moved $2.17 billion in freight while the 50 state average was $3.57 billion. Washington's rail freight value historically ranks lower than the U.S. average. Despite an increase in value, Washington's ranking remained at 18th. Washington's five-year average rail freight value is $1.86 billion, and the U.S. five-year average is $3.41 billion.

Table 1.1
Innovation Drivers
Total Public Two and Four Year College Combined Participation Rate
(Percent)*

	2013	2014	2015	2016	2017	2013-17
Alabama	6.7	6.6	6.6	6.7	6.7	6.6
Alaska	5.8	5.4	5.1	4.9	4.7	5.2
Arizona	7.1	6.9	6.9	6.8	6.8	6.9
Arkansas	6.8	6.7	6.6	6.5	6.4	6.6
California	7.4	7.3	7.3	7.4	7.4	7.4
Colorado	6.7	6.5	6.3	6.4	6.4	6.5
Connecticut	4.4	4.3	4.2	4.2	4.1	4.2
Delaware	5.7	5.6	5.5	5.6	5.6	5.6
Florida	5.1	5.0	4.9	4.8	4.8	4.9
Georgia	5.5	5.4	5.4	5.4	5.4	5.4
Hawaii	5.4	5.1	5.0	4.8	4.6	5.0
Idaho	6.4	6.4	5.9	6.0	6.0	6.1
Illinois	5.5	5.4	5.1	5.0	4.8	5.2
Indiana	6.7	6.5	6.4	6.3	5.9	6.4
Iowa	7.1	7.1	7.1	7.1	7.1	7.1
Kansas	8.5	8.4	8.2	8.2	8.2	8.3
Kentucky	6.5	6.3	6.0	6.0	5.9	6.1
Louisiana	6.1	6.0	6.0	5.8	5.9	6.0
Maine	4.6	4.6	4.4	4.4	4.3	4.5
Maryland	6.6	6.6	6.5	6.6	6.5	6.5
Massachusetts	4.3	4.2	4.1	4.0	3.9	4.1
Michigan	6.9	6.7	6.5	6.4	6.1	6.5
Minnesota	6.4	6.2	6.1	6.0	5.8	6.1
Mississippi	6.9	6.7	6.9	6.8	6.7	6.8
Missouri	5.5	5.4	5.3	5.2	5.0	5.3
Montana	6.0	5.9	5.7	5.7	5.6	5.8
Nebraska	7.3	7.1	7.0	7.0	7.0	7.1
Nevada	4.8	4.9	4.7	4.7	4.7	4.7
New Hampshire	4.1	4.1	4.0	3.8	3.7	3.9
New Jersey	5.1	5.1	4.9	4.8	4.8	4.9
New Mexico	9.2	8.7	8.3	8.1	7.8	8.4
New York	4.7	4.7	4.6	4.5	4.4	4.6
North Carolina	6.1	5.9	5.8	5.7	5.7	5.8
North Dakota	8.7	8.5	8.3	8.2	8.2	8.4
Ohio	5.8	5.7	5.6	5.6	5.5	5.6
Oklahoma	6.4	6.2	6.1	6.0	5.9	6.1
Oregon	6.8	6.5	6.3	6.1	5.9	6.3
Pennsylvania	4.2	4.1	4.0	4.0	4.0	4.1
Rhode Island	5.1	5.1	4.9	4.9	4.8	5.0
South Carolina	5.6	5.5	5.3	5.2	5.1	5.3
South Dakota	7.0	6.9	6.8	6.8	6.8	6.9
Tennessee	4.6	4.4	4.4	4.3	4.3	4.4
Texas	7.0	6.9	6.9	6.9	6.9	6.9
Utah	8.4	8.2	8.2	8.2	8.3	8.3
Vermont	5.1	5.1	5.0	5.1	5.0	5.1
Virginia	6.3	6.2	6.1	6.0	5.9	6.1
Washington	**5.8**	**5.7**	**5.6**	**5.6**	**5.5**	**5.6**
West Virginia	6.2	6.0	5.9	5.8	5.8	5.9
Wisconsin	6.5	6.4	6.3	6.2	6.2	6.3
Wyoming	8.0	7.7	7.5	7.3	7.4	7.6
50 State Average	6.1	6.0	5.9	5.8	5.8	5.9
Washington's Rank	**32**	**30**	**30**	**31**	**31**	**30**

*Percent participation: Fall enrollment compared to population aged 18 & above
Source: National Center for Education Statistics, U.S. Department of Education: Population Division, U.S. Census Bureau, data through 2017

Table 1.2
Innovation Drivers
Educational Attainment: Less than 9th Grade*
(Percent)*

	2013	2014	2015	2016	2017	2013-17
Alabama	4.9	5.1	4.8	4.8	4.2	4.8
Alaska	3.1	2.7	2.6	2.2	3.0	2.7
Arizona	6.4	6.4	6.0	5.7	5.4	6.0
Arkansas	5.6	5.6	5.3	5.0	4.6	5.2
California	10.1	10.0	9.9	9.7	9.2	9.8
Colorado	3.7	4.1	3.7	3.4	3.4	3.7
Connecticut	4.5	4.2	4.2	4.1	4.1	4.2
Delaware	3.9	3.4	3.8	3.4	3.5	3.6
Florida	5.3	5.2	5.2	5.2	4.7	5.1
Georgia	5.6	5.4	5.0	4.9	4.5	5.1
Hawaii	3.9	4.0	4.1	3.6	3.5	3.8
Idaho	4.3	3.9	3.7	3.2	3.3	3.7
Illinois	5.5	5.2	5.3	5.0	4.9	5.2
Indiana	4.1	3.9	3.8	3.8	3.6	3.8
Iowa	3.1	3.1	3.2	3.2	3.1	3.1
Kansas	4.0	3.9	3.8	3.6	3.5	3.8
Kentucky	6.6	6.6	6.2	5.7	5.4	6.1
Louisiana	5.8	5.7	5.2	5.2	4.9	5.4
Maine	2.9	3.1	2.8	2.7	2.6	2.8
Maryland	4.1	4.1	4.2	4.0	4.0	4.1
Massachusetts	4.9	5.0	4.5	4.5	4.3	4.6
Michigan	3.3	3.2	3.0	3.0	2.8	3.1
Minnesota	3.1	3.0	3.0	3.0	3.0	3.0
Mississippi	6.3	5.8	5.8	4.8	4.8	5.5
Missouri	3.7	3.6	3.6	3.3	3.1	3.5
Montana	2.2	2.2	2.0	1.9	2.2	2.1
Nebraska	4.4	4.3	3.9	4.1	3.9	4.1
Nevada	6.0	6.1	6.4	6.1	5.2	6.0
New Hampshire	2.9	2.6	1.9	2.2	1.9	2.3
New Jersey	5.5	5.2	5.2	5.1	4.8	5.2
New Mexico	7.4	6.6	6.7	6.1	5.8	6.5
New York	6.8	6.7	6.6	6.3	6.1	6.5
North Carolina	5.4	5.0	5.0	4.6	4.5	4.9
North Dakota	4.1	3.3	3.7	2.8	2.8	3.3
Ohio	3.2	3.0	3.0	2.8	2.7	2.9
Oklahoma	4.4	4.2	4.3	4.0	4.1	4.2
Oregon	4.1	4.2	3.7	3.7	3.5	3.8
Pennsylvania	3.6	3.5	3.3	3.2	3.2	3.4
Rhode Island	6.1	5.7	5.5	5.2	5.1	5.5
South Carolina	5.0	4.5	4.4	4.4	4.0	4.5
South Dakota	3.5	3.4	3.4	3.2	2.9	3.3
Tennessee	5.6	5.4	5.3	4.8	4.4	5.1
Texas	9.1	9.0	8.9	8.6	8.1	8.7
Utah	2.9	3.0	2.9	2.9	2.7	2.9
Vermont	3.2	2.8	2.8	2.5	2.2	2.7
Virginia	4.7	4.8	4.5	4.3	4.2	4.5
Washington	**4.0**	**4.0**	**3.9**	**3.8**	**3.7**	**3.9**
West Virginia	5.4	5.0	4.5	4.4	4.5	4.8
Wisconsin	3.1	3.0	3.0	2.7	2.6	2.9
Wyoming	1.5	2.2	2.0	1.5	2.0	1.8
U.S. Average	5.8	5.6	5.5	5.6	5.1	5.5
Washington's Rank	**19**	**21**	**23**	**23**	**24**	**24**

Source: U.S. Department of Commerce, Bureau of the Census: Educational Attainment, 2017
* Percent of persons 25 years old and over with less than a 9th grade education

Table 1.3
Innovation Drivers
Educational Attainment:
Completed Four Years of High School or More
(Percent)*

	2013	2014	2015	2016	2017	2013-17
Alabama	83.1	83.7	84.3	84.8	85.3	84.2
Alaska	91.6	91.8	92.1	92.3	92.4	92.0
Arizona	85.7	85.9	86.0	86.2	86.5	86.1
Arkansas	83.7	84.3	84.8	85.2	85.6	84.7
California	81.2	81.5	81.8	82.1	82.5	81.8
Colorado	90.2	90.4	90.7	91.0	91.1	90.7
Connecticut	89.2	89.5	89.9	90.1	90.2	89.8
Delaware	87.7	88.0	88.4	88.8	89.3	88.4
Florida	86.1	86.5	86.9	87.2	87.6	86.9
Georgia	84.7	85.0	85.4	85.8	86.3	85.4
Hawaii	90.4	90.7	91.0	91.3	91.6	91.0
Idaho	88.8	89.1	89.5	90.0	90.2	89.5
Illinois	87.3	87.6	87.9	88.3	88.6	87.9
Indiana	87.2	87.6	87.8	88.1	88.3	87.8
Iowa	91.0	91.3	91.5	91.7	91.8	91.5
Kansas	89.8	90.0	90.2	90.3	90.5	90.2
Kentucky	83.0	83.5	84.2	84.6	85.2	84.1
Louisiana	82.6	82.8	83.4	83.8	84.3	83.4
Maine	91.1	91.3	91.6	91.9	92.1	91.6
Maryland	88.7	89.0	89.4	89.6	89.8	89.3
Massachusetts	89.4	89.5	89.8	90.1	90.3	89.8
Michigan	88.9	89.3	89.6	89.9	90.2	89.6
Minnesota	92.1	92.3	92.4	92.6	92.8	92.4
Mississippi	81.5	81.9	82.3	83.0	83.4	82.4
Missouri	87.6	88.0	88.4	88.8	89.2	88.4
Montana	92.1	92.4	92.8	92.9	93.0	92.6
Nebraska	90.5	90.5	90.7	90.7	90.9	90.7
Nevada	84.6	84.9	85.1	85.4	85.8	85.2
New Hampshire	91.8	92.0	92.3	92.6	92.8	92.3
New Jersey	88.1	88.4	88.6	88.9	89.2	88.6
New Mexico	83.6	84.0	84.2	84.6	85.0	84.3
New York	85.2	85.4	85.6	85.9	86.1	85.6
North Carolina	84.9	85.4	85.8	86.3	86.9	85.9
North Dakota	90.9	91.3	91.7	92.0	92.3	91.6
Ohio	88.5	88.8	89.1	89.5	89.8	89.1
Oklahoma	86.4	86.7	86.9	87.3	87.5	87.0
Oregon	89.4	89.5	89.8	90.0	90.2	89.8
Pennsylvania	88.7	89.0	89.2	89.5	89.9	89.3
Rhode Island	85.2	85.4	86.2	87.0	87.3	86.2
South Carolina	84.5	85.0	85.6	86.0	86.5	85.5
South Dakota	90.4	90.7	90.9	91.2	91.4	90.9
Tennessee	84.4	84.9	85.5	86.0	86.5	85.5
Texas	81.2	81.6	81.9	82.3	82.8	82.0
Utah	90.9	91.0	91.2	91.5	91.8	91.3
Vermont	91.4	91.6	91.8	91.9	92.3	91.8
Virginia	87.5	87.9	88.3	88.6	89.0	88.3
Washington	**90.0**	**90.2**	**90.4**	**90.6**	**90.8**	**90.4**
West Virginia	83.9	84.4	85.0	85.3	85.9	84.9
Wisconsin	90.4	90.8	91.0	91.4	91.7	91.1
Wyoming	92.4	92.3	92.3	92.4	92.8	92.4
U.S. Average	86.6	86.9	87.1	87.0	87.3	86.9
Washington's Rank	**16**	**16**	**16**	**16**	**16**	**16**

Source: U.S. Department of Commerce, Bureau of the Census: Educational Attainment in the US: 2017.
*Percent of persons 25 years or older who have completed 4 years of high school or more.

Table 1.4
Innovation Drivers
Educational Attainment: Completed Bachelor's Degree or More*
(Percent)*

	2013	2014	2015	2016	2017	2013-17
Alabama	23.5	23.5	24.2	24.7	25.5	24.0
Alaska	28.0	28.0	29.7	29.6	28.8	28.8
Arizona	27.4	27.6	27.7	28.9	29.4	27.9
Arkansas	20.6	21.4	21.8	22.4	23.4	21.6
California	31.0	31.7	32.3	32.9	33.6	32.0
Colorado	37.8	38.3	39.2	39.9	41.2	38.8
Connecticut	37.2	38.0	38.3	38.6	38.7	38.0
Delaware	29.8	30.6	30.9	31.0	31.5	30.6
Florida	27.2	27.3	28.4	28.6	29.7	27.9
Georgia	28.3	29.1	29.9	30.5	30.9	29.5
Hawaii	31.2	31.0	31.4	31.9	32.9	31.4
Idaho	26.2	25.0	26.0	27.6	26.8	26.2
Illinois	32.1	32.8	32.9	34.0	34.4	33.0
Indiana	23.8	24.7	24.9	25.6	26.8	24.8
Iowa	26.4	27.7	26.8	28.4	28.9	27.3
Kansas	31.1	31.5	31.7	32.8	33.7	31.8
Kentucky	22.6	22.2	23.3	23.4	24.0	22.9
Louisiana	22.5	22.9	23.2	23.4	23.8	23.0
Maine	28.2	29.4	30.1	30.1	32.1	29.5
Maryland	37.4	38.2	38.8	39.3	39.7	38.4
Massachusetts	40.3	41.2	41.5	42.7	43.4	41.4
Michigan	26.9	27.4	27.8	28.3	29.1	27.6
Minnesota	33.5	34.3	34.7	34.8	36.1	34.3
Mississippi	20.4	21.1	20.8	21.8	21.9	21.0
Missouri	27.0	27.5	27.8	28.5	29.1	27.7
Montana	29.0	29.3	30.6	31.0	32.3	30.0
Nebraska	29.4	29.5	30.2	31.4	31.7	30.1
Nevada	22.5	23.1	23.6	23.5	24.9	23.2
New Hampshire	34.6	35.0	35.7	36.6	36.9	35.5
New Jersey	36.6	37.4	37.6	38.6	39.7	37.6
New Mexico	26.4	26.4	26.5	27.2	27.1	26.6
New York	34.1	34.5	35.0	35.7	36.0	34.8
North Carolina	28.4	28.7	29.4	30.4	31.3	29.2
North Dakota	27.1	27.4	29.1	29.6	30.7	28.3
Ohio	26.1	26.6	26.8	27.5	28.0	26.8
Oklahoma	23.8	24.2	24.6	25.2	25.5	24.5
Oregon	30.7	30.8	32.2	32.7	33.7	31.6
Pennsylvania	28.7	29.0	29.7	30.8	31.4	29.6
Rhode Island	32.4	30.4	32.7	34.1	33.5	32.4
South Carolina	26.1	26.3	26.8	27.2	28.0	26.6
South Dakota	26.6	27.8	27.5	28.9	28.1	27.7
Tennessee	24.8	25.3	25.7	26.1	27.3	25.5
Texas	27.5	27.8	28.4	28.9	29.6	28.2
Utah	31.3	31.1	31.8	32.6	34.6	31.7
Vermont	35.7	34.9	36.9	36.4	38.3	36.0
Virginia	36.1	36.7	37.0	38.1	38.7	37.0
Washington	**32.7**	**33.1**	**34.2**	**35.1**	**35.5**	**33.8**
West Virginia	18.9	19.2	19.6	20.8	20.2	19.6
Wisconsin	27.7	28.4	28.4	29.5	30.4	28.5
Wyoming	26.6	26.6	26.2	27.1	27.6	26.6
U.S. Average	28.9	29.2	29.8	30.5	31.1	29.6
Washington's Rank	**11**	**11**	**11**	**10**	**11**	**11**

Source: U.S. Department of Commerce, Bureau of the Census: Educational Attainment in the United States, 2017
* Percent of persons 25 years old and over who have obtained a Bachelor's degree or higher.

Table 1.5
Innovation Drivers
Research Doctorates Awarded
Per 100,000 population age 18+

	2013	2014	2015	2016	2017	2013-2017
Alabama	17.3	17.9	18.5	19.1	18.7	18.3
Alaska	9.5	8.9	7.4	8.7	9.4	8.8
Arizona	18.0	17.4	18.7	16.8	14.9	17.2
Arkansas	9.9	9.3	9.8	10.9	8.8	9.8
California	21.6	20.9	20.2	20.3	20.0	20.6
Colorado	22.5	22.9	23.9	25.0	23.1	23.5
Connecticut	25.7	26.0	27.6	26.9	26.3	26.5
Delaware	25.8	26.7	30.3	37.4	31.4	30.3
Florida	14.1	14.4	14.6	13.9	13.9	14.2
Georgia	18.1	18.8	19.2	18.8	18.9	18.7
Hawaii	20.9	17.6	21.4	17.9	16.8	18.9
Idaho	11.8	11.1	9.4	8.7	8.1	9.8
Illinois	25.8	24.2	25.0	24.6	25.6	25.0
Indiana	27.9	28.1	31.4	30.0	30.9	29.6
Iowa	33.0	30.8	28.6	29.6	29.6	30.3
Kansas	23.6	22.2	26.3	23.4	24.1	23.9
Kentucky	5.2	6.0	14.7	14.0	14.4	10.9
Louisiana	18.7	17.4	17.7	18.4	17.0	17.8
Maine	4.6	7.1	6.7	7.0	5.2	6.1
Maryland	30.4	27.9	30.1	27.3	27.5	28.7
Massachusetts	52.0	52.7	52.2	53.3	52.4	52.5
Michigan	12.8	14.4	25.5	24.6	24.5	20.4
Minnesota	29.7	32.5	31.4	34.6	32.1	32.1
Mississippi	19.8	18.6	19.7	19.8	20.3	19.6
Missouri	18.6	19.1	20.9	19.5	21.6	19.9
Montana	12.5	13.4	15.7	14.5	14.5	14.1
Nebraska	25.9	25.9	26.1	27.1	25.1	26.0
Nevada	9.9	9.1	9.5	10.1	8.6	9.5
New Hampshire	15.3	16.6	15.3	14.2	14.6	15.2
New Jersey	15.1	16.7	16.2	15.3	15.9	15.8
New Mexico	20.7	21.3	21.8	19.2	18.7	20.3
New York	27.2	27.9	26.3	27.0	25.9	26.8
North Carolina	22.2	22.1	21.9	23.1	23.0	22.5
North Dakota	25.0	27.8	30.0	31.8	31.2	29.2
Ohio	20.5	21.6	22.2	22.8	22.4	21.9
Oklahoma	16.8	17.7	17.5	18.2	17.6	17.6
Oregon	14.9	14.1	15.4	14.1	17.5	15.2
Pennsylvania	25.0	25.7	26.0	26.9	25.9	25.9
Rhode Island	36.8	39.5	37.4	38.3	9.9	32.4
South Carolina	13.3	14.4	15.4	14.1	12.9	14.0
South Dakota	11.9	15.7	17.0	17.3	16.8	15.8
Tennessee	16.5	17.6	17.7	17.9	19.8	17.9
Texas	15.2	16.4	20.1	19.3	19.4	18.1
Utah	26.1	24.9	27.1	25.2	23.4	25.3
Vermont	14.5	14.5	14.6	14.8	12.0	14.1
Virginia	24.4	24.1	23.5	23.3	22.9	23.7
Washington	**17.4**	**17.1**	**17.2**	**16.4**	**15.9**	**16.8**
West Virginia	13.3	13.1	14.8	16.7	12.7	14.1
Wisconsin	23.0	24.9	25.0	24.6	25.0	24.5
Wyoming	14.8	23.1	19.0	18.1	22.8	19.6
U.S. Average	20.7	20.9	21.9	21.7	21.3	21.3
Washington Rank	**29**	**33**	**35**	**37**	**35**	**35**

Source: National Science Foundation, National Center for Science and Engineering Statistics, Survey of Earned Doctorates, 2017

Table 1.6
Innovation Drivers

Migration Rate

(Percent)*

	2014	2015	2016	2017	2018	2014-18
Alabama	0.1	0.1	0.1	0.1	0.2	0.1
Alaska	-1.1	-0.8	-0.4	-1.1	-1.1	-0.9
Arizona	0.9	1.0	1.2	1.1	1.4	1.1
Arkansas	0.0	0.1	0.2	0.2	0.2	0.1
California	0.2	0.2	0.1	0.0	-0.1	0.1
Colorado	0.9	1.3	1.1	0.8	0.9	1.0
Connecticut	-0.2	-0.4	-0.4	-0.3	-0.1	-0.3
Delaware	0.6	0.7	0.5	0.6	0.9	0.7
Florida	1.3	1.6	1.8	1.6	1.5	1.6
Georgia	0.4	0.6	0.7	0.6	0.6	0.6
Hawaii	-0.1	0.0	-0.1	-0.7	-0.6	-0.3
Idaho	0.6	0.6	1.3	1.5	1.5	1.1
Illinois	-0.5	-0.6	-0.7	-0.7	-0.7	-0.6
Indiana	0.0	-0.1	0.1	0.1	0.2	0.1
Iowa	0.2	0.1	0.0	0.1	0.1	0.1
Kansas	-0.2	-0.1	-0.4	-0.4	-0.4	-0.3
Kentucky	-0.1	0.0	0.1	0.2	0.1	0.1
Louisiana	0.0	0.0	-0.1	-0.5	-0.5	-0.2
Maine	0.2	-0.1	0.3	0.4	0.4	0.3
Maryland	0.1	0.0	-0.1	0.0	0.0	0.0
Massachusetts	0.5	0.3	0.2	0.4	0.4	0.3
Michigan	-0.1	-0.2	0.0	0.1	0.0	0.0
Minnesota	0.2	0.1	0.2	0.3	0.3	0.2
Mississippi	-0.2	-0.3	-0.2	-0.2	-0.3	-0.2
Missouri	0.0	0.0	0.0	0.1	0.1	0.0
Montana	0.5	0.6	0.8	0.9	0.6	0.7
Nebraska	0.2	0.1	0.2	0.1	0.1	0.1
Nevada	1.0	1.3	1.3	1.4	1.7	1.3
New Hampshire	0.4	0.2	0.4	0.5	0.5	0.4
New Jersey	-0.3	-0.3	-0.3	-0.1	0.0	-0.2
New Mexico	-0.6	-0.4	-0.2	-0.2	-0.2	-0.3
New York	-0.3	-0.4	-0.5	-0.6	-0.6	-0.5
North Carolina	0.5	0.7	0.9	0.8	0.8	0.8
North Dakota	1.4	1.5	-0.6	-0.6	0.0	0.4
Ohio	0.0	-0.1	0.0	0.1	0.1	0.0
Oklahoma	0.3	0.5	0.1	-0.2	0.0	0.1
Oregon	0.7	1.1	1.6	1.1	0.8	1.1
Pennsylvania	0.0	-0.1	-0.1	0.0	0.1	0.0
Rhode Island	0.0	-0.1	0.0	-0.1	0.0	0.0
South Carolina	1.0	1.2	1.1	1.1	1.1	1.1
South Dakota	0.2	0.0	0.5	0.7	0.5	0.4
Tennessee	0.5	0.5	0.6	0.8	0.7	0.6
Texas	1.0	1.1	0.9	0.7	0.7	0.9
Utah	0.2	0.4	0.9	0.9	0.8	0.6
Vermont	-0.2	0.0	-0.3	0.2	0.3	0.0
Virginia	0.2	0.2	0.1	0.2	0.3	0.2
Washington	**0.8**	**1.1**	**1.3**	**1.3**	**1.0**	**1.1**
West Virginia	-0.2	-0.3	-0.4	-0.5	-0.4	-0.4
Wisconsin	0.0	-0.1	-0.1	0.1	0.1	0.0
Wyoming	-0.5	0.0	-0.7	-1.4	-0.5	-0.6
U.S. Average*	0.1	0.1	0.1	0.1	0.1	0.1
Washington's Rank	**8**	**7**	**3**	**4**	**6**	**6**

Source: Population Division, U.S. Census Bureau, 2018

* The District of Columbia and Puerto Rico are included in the U.S. average.

Table 1.7
Innovation Drivers
H-1B Visas
Per 1,000 Labor Force

	2013	2014	2015	2016	2017	2013-17
Alabama	0.62	0.72	0.72	0.67	0.62	0.67
Alaska	0.76	0.84	0.91	0.88	0.67	0.81
Arizona	2.08	1.81	1.88	2.07	1.85	1.94
Arkansas	1.38	1.30	1.47	1.75	1.54	1.49
California	4.26	4.86	5.28	5.77	5.79	5.19
Colorado	1.49	1.67	1.74	1.88	1.61	1.68
Connecticut	4.00	3.86	3.96	3.82	3.60	3.85
Delaware	3.00	3.52	3.81	3.76	3.68	3.55
Florida	2.67	2.52	2.42	2.84	1.95	2.48
Georgia	2.20	2.43	2.52	2.55	2.47	2.43
Hawaii	1.22	1.21	1.13	2.76	1.08	1.48
Idaho	0.62	0.74	0.66	0.66	0.59	0.65
Illinois	3.20	3.47	3.72	3.62	3.61	3.52
Indiana	1.19	1.20	1.35	1.32	1.42	1.29
Iowa	0.88	1.09	1.08	1.01	1.01	1.01
Kansas	1.04	1.19	1.33	1.40	1.28	1.25
Kentucky	0.84	0.83	0.87	0.86	0.78	0.84
Louisiana	0.63	0.70	0.72	0.77	0.78	0.72
Maine	0.81	0.86	0.97	0.88	0.87	0.88
Maryland	2.25	2.21	2.12	2.15	2.06	2.16
Massachusetts	5.35	5.49	5.82	6.04	6.08	5.76
Michigan	4.66	2.73	2.70	2.87	3.83	3.36
Minnesota	1.86	1.97	2.04	1.97	1.88	1.94
Mississippi	0.32	0.47	0.43	0.46	0.47	0.43
Missouri	0.97	1.04	1.03	1.05	1.05	1.03
Montana	0.31	0.27	0.30	0.42	0.38	0.33
Nebraska	1.76	3.38	3.81	4.51	3.04	3.30
Nevada	0.75	0.82	0.78	1.83	0.83	1.00
New Hampshire	1.67	1.79	1.93	1.87	1.95	1.84
New Jersey	6.35	6.69	7.22	7.53	7.62	7.08
New Mexico	0.88	0.70	0.65	0.91	0.78	0.78
New York	6.82	6.74	6.59	6.70	6.37	6.64
North Carolina	1.77	1.87	1.95	2.06	2.00	1.93
North Dakota	0.94	0.92	0.82	0.93	1.07	0.94
Ohio	1.55	1.59	1.68	1.66	1.66	1.63
Oklahoma	0.58	0.75	0.70	0.63	0.57	0.64
Oregon	1.74	1.78	1.88	1.85	1.87	1.82
Pennsylvania	1.76	1.91	1.92	1.96	2.05	1.92
Rhode Island	2.14	2.35	2.55	2.60	2.65	2.46
South Carolina	0.71	0.73	0.72	0.73	0.70	0.72
South Dakota	0.48	0.57	0.59	0.56	0.54	0.55
Tennessee	1.05	1.12	1.14	1.13	1.10	1.11
Texas	3.41	3.16	3.31	3.38	3.08	3.27
Utah	1.05	1.14	1.10	1.12	1.11	1.11
Vermont	2.94	1.76	1.42	1.38	1.44	1.79
Virginia	2.55	2.60	2.76	2.80	2.71	2.68
Washington	**6.21**	**5.76**	**5.47**	**5.67**	**6.44**	**5.91**
West Virginia	0.38	0.39	0.44	0.42	0.48	0.42
Wisconsin	1.13	1.26	1.35	1.37	1.38	1.30
Wyoming	0.38	0.40	0.42	0.35	0.30	0.37
50 State Average	1.95	1.98	2.04	2.16	2.05	2.04
Washington's Rank	**3**	**3**	**4**	**5**	**2**	**3**

SOURCE: Department of Homeland Security, 2018

Table 1.8
Innovation Drivers
University Research and Development
(Dollars Per Capita)

	2013	2014	2015	2016	2017	2013-17
Alabama	174	168	186	195	206	186
Alaska	250	237	221	226	238	234
Arizona	161	156	162	168	173	164
Arkansas	100	96	99	100	104	100
California	218	217	222	226	233	223
Colorado	238	231	234	249	261	243
Connecticut	294	295	304	328	350	314
Delaware	213	207	203	207	212	209
Florida	111	114	118	122	125	118
Georgia	196	193	201	211	224	205
Hawaii	244	236	233	223	211	229
Idaho	89	88	89	92	95	91
Illinois	194	181	186	187	196	189
Indiana	203	199	200	213	219	207
Iowa	231	249	243	260	264	250
Kansas	189	189	193	192	198	192
Kentucky	125	121	121	125	131	125
Louisiana	145	143	142	146	148	145
Maine	79	96	81	75	92	85
Maryland	579	598	624	631	664	619
Massachusetts	526	518	541	556	573	543
Michigan	229	226	235	249	267	241
Minnesota	166	169	169	174	174	170
Mississippi	139	137	137	152	161	145
Missouri	178	173	177	184	188	180
Montana	184	178	177	188	218	189
Nebraska	238	242	245	252	267	249
Nevada	55	54	55	65	69	60
New Hampshire	268	275	269	285	339	287
New Jersey	132	126	123	129	139	130
New Mexico	194	198	188	180	179	188
New York	280	285	288	307	320	296
North Carolina	278	283	280	289	300	286
North Dakota	303	301	289	300	339	306
Ohio	187	186	185	189	197	189
Oklahoma	109	108	107	125	129	116
Oregon	180	178	179	186	189	182
Pennsylvania	263	260	262	309	326	284
Rhode Island	455	424	429	438	313	412
South Carolina	136	136	136	139	139	137
South Dakota	139	124	121	124	130	128
Tennessee	159	173	163	164	176	167
Texas	182	182	185	188	194	186
Utah	238	236	246	188	197	221
Vermont	193	183	192	194	197	192
Virginia	172	166	169	174	183	173
Washington	**224**	**218**	**217**	**226**	**235**	**224**
West Virginia	106	106	108	109	116	109
Wisconsin	247	245	239	253	259	249
Wyoming	112	88	97	192	216	141
U.S. average	210	209	212	220	229	216
Washington's Rank	**18**	**18**	**19**	**16**	**16**	**17**

SOURCE: The National Science Foundation, 2018. (www.nsf.gov)

Table 1.9
Innovation Drivers
Industry Research and Development
(Dollars Per Capita)

	2012	2013	2014	2015	2016	2012-16
Alabama	267	324	405	322	349	333
Alaska	53	62	77	89	46	66
Arizona	758	787	820	811	937	823
Arkansas	103	97	107	101	122	106
California	2,149	2,331	2,545	2,766	2,992	2,556
Colorado	792	859	852	802	788	818
Connecticut	2,041	2,223	2,526	2,374	2,226	2,278
Delaware	2,634	2,497	2,696	2,840	2,172	2,568
Florida	269	296	291	287	304	289
Georgia	391	403	460	452	509	443
Hawaii	135	152	138	130	115	134
Idaho	677	769	888	942	946	844
Illinois	1,010	1,016	960	988	1,070	1,009
Indiana	925	987	895	946	897	930
Iowa	573	664	676	814	914	728
Kansas	718	671	667	732	758	709
Kentucky	245	291	263	292	241	266
Louisiana	79	77	83	86	58	77
Maine	207	275	281	224	218	241
Maryland	684	804	858	856	942	829
Massachusetts	2,626	2,592	3,123	3,162	3,160	2,933
Michigan	1,508	1,609	1,722	1,728	1,897	1,693
Minnesota	1,156	1,221	1,279	1,244	1,282	1,236
Mississippi	92	71	90	72	74	80
Missouri	1,159	1,188	1,109	1,001	978	1,087
Montana	105	91	201	219	135	150
Nebraska	312	336	314	305	317	317
Nevada	230	188	223	132	195	194
New Hampshire	1,406	1,546	1,536	1,452	1,437	1,476
New Jersey	1,780	1,573	1,537	1,575	1,750	1,643
New Mexico	214	249	240	241	234	235
New York	598	610	699	773	792	695
North Carolina	641	821	814	854	991	824
North Dakota	317	317	367	280	336	323
Ohio	672	702	772	779	765	738
Oklahoma	121	131	157	169	176	151
Oregon	1,324	1,438	1,624	1,583	1,596	1,513
Pennsylvania	730	842	846	809	962	838
Rhode Island	427	542	514	711	827	604
South Carolina	342	213	226	263	262	261
South Dakota	135	195	159	163	175	165
Tennessee	223	219	243	238	242	233
Texas	581	587	607	632	622	606
Utah	748	1,016	956	1,097	1,134	990
Vermont	745	649	483	396	398	534
Virginia	581	538	600	536	448	541
Washington	**2,103**	**2,134**	**2,228**	**2,368**	**2,702**	**2,307**
West Virginia	164	165	151	109	100	138
Wisconsin	723	737	745	812	861	776
Wyoming	52	48	101	302	294	159
U.S. average	965	1022	1072	1111	1138	1042
Washington's Rank	**4**	**5**	**5**	**5**	**3**	**4**

SOURCE: The National Science Foundation, 2018. (www.nsf.gov)

Table 1.10
Innovation Drivers
State Government Research and Development
(Dollars Per Capita)

	2013	2014	2015	2016	2017	2013-17
Alabama	2.75	3.83	5.05	5.10	5.29	4.40
Alaska	9.08	16.34	15.26	13.58	12.43	13.34
Arizona	4.19	2.79	2.19	2.26	1.99	2.68
Arkansas	5.58	5.05	5.59	5.77	5.29	5.46
California	9.06	9.22	14.61	14.64	13.01	12.11
Colorado	2.75	2.94	2.99	3.00	4.55	3.25
Connecticut	11.41	13.19	15.56	13.82	15.01	13.80
Delaware	5.12	2.41	2.34	2.84	3.41	3.22
Florida	6.07	7.91	9.47	7.56	9.62	8.13
Georgia	1.27	1.17	0.99	1.27	1.35	1.21
Hawaii	9.30	9.28	8.10	12.63	8.01	9.46
Idaho	8.02	7.88	7.83	8.62	8.74	8.22
Illinois	1.40	1.94	2.40	1.32	1.22	1.65
Indiana	1.55	3.58	1.51	1.96	2.55	2.23
Iowa	6.26	3.33	3.61	3.93	2.97	4.02
Kansas	1.97	1.84	1.88	2.20	2.29	2.03
Kentucky	4.48	3.30	5.83	6.63	6.84	5.41
Louisiana	3.40	4.04	6.90	5.83	5.40	5.11
Maine	4.60	5.15	9.49	8.58	16.97	8.96
Maryland	4.97	5.03	4.15	4.40	4.90	4.69
Massachusetts	0.68	2.70	3.34	3.43	4.60	2.95
Michigan	1.29	1.23	1.28	1.72	1.70	1.44
Minnesota	2.74	3.55	3.91	4.14	3.29	3.53
Mississippi	1.63	0.44	0.26	0.78	1.43	0.91
Missouri	2.16	2.49	2.75	2.42	2.47	2.46
Montana	6.48	10.20	10.06	17.28	17.31	12.27
Nebraska	3.90	3.52	2.89	4.01	11.79	5.22
Nevada	0.59	1.22	1.08	1.96	3.70	1.71
New Hampshire	1.35	1.09	1.20	1.13	1.43	1.24
New Jersey	3.88	3.43	3.81	3.43	4.21	3.75
New Mexico	0.96	2.00	1.95	2.28	2.13	1.86
New York	19.47	19.18	18.85	20.61	22.17	20.06
North Carolina	3.11	2.28	3.44	3.66	4.37	3.37
North Dakota	10.20	14.63	12.75	11.23	19.54	13.67
Ohio	16.27	8.18	8.12	8.54	9.35	10.09
Oklahoma	7.33	7.86	7.66	8.52	8.63	8.00
Oregon	5.88	7.49	7.96	6.07	8.92	7.26
Pennsylvania	5.20	2.77	5.87	5.73	7.23	5.36
Rhode Island	1.56	3.05	2.46	3.19	3.59	2.77
South Carolina	10.02	4.63	5.60	6.15	6.91	6.66
South Dakota	4.35	5.97	4.93	5.23	4.20	4.93
Tennessee	0.53	0.67	0.58	1.06	1.48	0.86
Texas	6.99	6.02	6.73	9.13	10.40	7.85
Utah	18.51	12.41	12.80	10.34	10.53	12.92
Vermont	2.92	3.26	3.52	1.67	1.83	2.64
Virginia	4.36	4.62	5.22	3.99	3.50	4.34
Washington	**6.77**	**5.72**	**5.30**	**4.82**	**5.87**	**5.70**
West Virginia	10.26	6.06	5.89	4.50	6.16	6.57
Wisconsin	3.70	2.55	2.52	2.33	2.30	2.68
Wyoming	11.16	11.06	8.81	7.25	9.74	9.61
U.S. Average	6.36	5.93	7.00	7.16	7.71	6.62
Washington's Rank	**15**	**18**	**23**	**24**	**22**	**19**

SOURCE: The National Science Foundation, 2018. (www.nsf.gov)

Table 1.11
Innovation Drivers
Patents Issued
Per 100,000 Residents

	2014	2015	2016	2017	2018	2014-18
Alabama	11.5	10.7	11.3	11.7	10.4	11.1
Alaska	6.9	6.2	8.0	8.0	7.7	7.4
Arizona	39.7	40.1	42.7	43.6	39.2	41.0
Arkansas	8.7	10.3	10.2	11.6	13.4	10.8
California	113.1	112.0	114.3	117.2	111.1	113.5
Colorado	66.4	63.7	62.2	62.7	57.2	62.4
Connecticut	69.6	66.0	70.2	75.5	83.3	72.9
Delaware	50.0	39.9	35.9	35.5	29.5	38.2
Florida	25.3	24.3	24.6	25.1	23.0	24.4
Georgia	29.6	28.2	28.2	29.9	29.1	29.0
Hawaii	11.3	11.7	12.5	10.7	9.6	11.2
Idaho	64.1	55.0	49.0	44.1	48.1	52.0
Illinois	46.0	45.6	45.5	47.3	44.4	45.7
Indiana	34.4	34.5	34.6	38.1	33.8	35.1
Iowa	34.0	34.5	31.6	36.7	33.5	34.1
Kansas	35.7	34.4	32.5	30.6	30.7	32.8
Kentucky	16.2	16.2	17.7	18.0	16.7	16.9
Louisiana	10.5	9.6	11.1	10.9	10.5	10.5
Maine	16.7	17.0	13.3	15.8	17.0	16.0
Maryland	33.7	32.8	34.5	36.2	33.8	34.2
Massachusetts	104.7	106.4	108.8	115.5	111.4	109.4
Michigan	58.6	62.3	65.8	72.3	73.0	66.4
Minnesotta	93.2	88.5	84.5	88.1	80.4	87.0
Mississippi	5.9	5.8	5.9	7.9	7.0	6.5
Missouri	23.4	20.6	22.8	22.6	22.9	22.5
Montana	13.6	16.3	16.9	17.4	16.2	16.1
Nebraska	21.1	17.8	19.2	18.3	16.3	18.5
Nevada	34.4	27.5	30.6	29.6	24.6	29.3
New Hampshire	71.4	69.1	75.9	83.5	73.6	74.7
New Jersey	62.1	56.7	54.8	57.7	52.6	56.8
New Mexico	21.3	21.8	24.9	26.4	25.5	24.0
New York	49.7	47.8	50.4	53.4	50.0	50.3
North Carolina	37.3	36.4	37.6	38.5	36.4	37.2
North Dakota	16.3	16.8	14.2	17.6	16.2	16.2
Ohio	37.8	37.0	36.0	38.6	39.4	37.8
Oklahoma	16.2	15.3	14.7	16.3	15.6	15.6
Oregon	73.6	69.6	81.8	96.9	84.0	81.2
Pennsylvania	35.1	33.0	33.8	37.4	34.8	34.8
Rhode Island	42.3	37.2	39.2	41.2	39.3	39.8
South Carolina	20.7	21.6	23.2	23.9	22.5	22.4
South Dakota	15.1	15.0	18.1	17.3	17.8	16.6
Tennessee	18.1	17.1	18.4	19.5	19.0	18.4
Texas	39.6	38.4	38.6	40.5	39.6	39.4
Utah	52.0	53.5	51.0	59.3	56.8	54.5
Vermont	97.6	75.2	75.4	73.8	62.0	76.8
Virginia	26.3	26.6	26.5	28.2	29.8	27.5
Washington	**101.4**	**98.2**	**103.4**	**107.0**	**98.8**	**101.7**
West Virginia	7.4	7.4	5.6	6.7	8.4	7.1
Wisconsin	46.1	44.6	46.3	47.1	46.5	46.1
Wyoming	22.5	19.5	19.7	21.1	20.4	20.6
U.S. Average	49.8	48.6	49.7	52.0	49.5	49.9
Washington's Rank	**3**	**3**	**3**	**3**	**3**	**3**

Source: U.S. Patent and Trademark Office, U.S. Census Bureau, 2019

Table 1.12
Innovation Drivers
Venture Capital Investment
Dollars per Thousand GDP

	2014	2015	2016	2017	2018	2014-18
Alabama	0.21	0.26	0.24	0.37	0.16	0.25
Alaska	1.68	0.05	0.05	0.04	0.07	0.38
Arizona	1.43	1.06	0.95	0.74	2.30	1.30
Arkansas	0.28	0.21	0.32	0.26	0.37	0.29
California	15.28	16.49	14.29	15.43	26.33	17.56
Colorado	3.88	4.10	2.77	3.52	4.46	3.74
Connecticut	2.78	1.86	1.57	2.02	2.30	2.11
Delaware	6.13	2.51	1.26	1.42	2.46	2.75
Florida	1.50	1.12	1.79	1.55	1.76	1.54
Georgia	1.42	2.04	1.43	2.13	1.83	1.77
Hawaii	0.34	0.12	0.36	0.26	0.17	0.25
Idaho	0.37	1.26	0.24	16.94	0.76	3.91
Illinois	1.95	1.71	1.59	2.36	2.11	1.94
Indiana	0.77	0.52	0.50	0.47	1.02	0.65
Iowa	0.48	0.24	0.41	0.34	0.43	0.38
Kansas	0.44	0.97	0.14	0.45	0.98	0.60
Kentucky	0.34	0.27	0.47	0.44	0.31	0.36
Louisiana	0.06	0.16	0.09	0.41	0.10	0.16
Maine	0.58	1.41	0.40	4.00	0.43	1.36
Maryland	1.27	2.10	1.35	1.66	3.22	1.92
Massachusetts	11.07	16.10	11.74	16.59	20.67	15.23
Michigan	0.76	1.05	0.52	0.66	0.89	0.78
Minnesota	1.63	1.81	1.41	1.60	2.12	1.71
Mississippi	0.04	0.10	0.06	0.01	0.08	0.06
Missouri	1.21	0.99	1.01	0.84	2.03	1.21
Montana	1.43	0.88	1.00	1.76	0.75	1.16
Nebraska	0.37	1.13	0.15	0.70	0.21	0.51
Nevada	1.18	0.61	1.11	0.77	0.68	0.87
New Hampshire	2.12	3.09	1.72	1.00	1.42	1.87
New Jersey	1.17	1.95	0.89	1.30	1.18	1.30
New Mexico	0.47	1.32	0.35	1.06	0.86	0.81
New York	5.02	5.73	4.78	7.67	8.20	6.28
North Carolina	1.12	2.71	1.48	1.67	4.76	2.35
North Dakota	0.09	0.02	0.21	0.19	0.41	0.18
Ohio	0.81	0.83	0.58	0.81	1.58	0.92
Oklahoma	0.19	0.25	0.04	0.11	0.34	0.19
Oregon	1.47	1.38	1.43	1.59	2.26	1.62
Pennsylvania	1.91	1.36	1.51	1.20	1.88	1.57
Rhode Island	1.21	0.39	0.72	1.39	0.88	0.92
South Carolina	0.83	0.31	0.25	0.38	0.41	0.44
South Dakota	0.16	0.53	1.84	0.11	0.42	0.61
Tennessee	1.12	1.05	1.13	0.77	0.60	0.94
Texas	1.68	1.61	1.27	1.09	1.73	1.48
Utah	7.27	4.47	7.41	6.34	6.14	6.32
Vermont	2.93	0.62	1.63	0.30	1.18	1.33
Virginia	1.29	1.06	1.15	1.53	1.46	1.30
Washington	**4.34**	**4.47**	**3.20**	**3.37**	**5.23**	**4.12**
West Virginia	0.08	0.03	0.13	0.01	0.10	0.07
Wisconsin	0.86	0.73	0.77	0.35	0.85	0.71
Wyoming	0.18	0.22	0.05	0.31	0.33	0.22
50 State Average	1.90	1.91	1.60	2.21	2.42	2.01
Washington's Rank	**6**	**4**	**5**	**8**	**5**	**5**

SOURCE: National Venture Capital Assoiciation Yearbook, 2018

Table 1.13
Innovation Drivers
Establishment Birth Rate
Per 100 Existing Establishments

	2014	2015	2016	2017	2018	2014-18
Alabama	8.24	8.39	8.48	8.45	8.35	8.38
Alaska	9.47	9.47	9.22	9.99	9.66	9.56
Arizona	10.63	11.97	11.46	11.57	11.38	11.40
Arkansas	8.48	9.51	9.14	8.91	9.13	9.03
California	11.84	12.54	12.32	12.04	11.74	12.10
Colorado	11.79	11.60	12.17	11.41	11.58	11.71
Connecticut	7.52	7.78	7.35	7.72	7.73	7.62
Delaware	10.95	10.31	10.40	10.75	10.93	10.67
Florida	11.83	12.43	12.07	11.41	12.24	11.99
Georgia	10.08	10.47	10.72	11.02	10.46	10.55
Hawaii	8.67	9.18	9.03	9.15	9.68	9.14
Idaho	11.66	12.52	12.19	12.27	13.43	12.41
Illinois	7.90	9.05	7.99	9.66	9.32	8.78
Indiana	8.07	8.37	7.83	7.94	8.65	8.17
Iowa	7.82	7.94	8.20	8.27	8.01	8.05
Kansas*	8.92	9.53	10.98	8.85	8.99	9.45
Kentucky	8.99	8.51	8.44	8.14	9.21	8.66
Louisiana	8.43	8.45	7.91	8.03	8.26	8.22
Maine	8.29	8.80	8.99	9.98	9.06	9.02
Maryland	9.30	9.79	9.28	9.28	9.11	9.35
Massachusetts	11.53	10.50	9.96	10.38	10.24	10.52
Michigan	8.39	7.71	7.65	7.50	8.18	7.89
Minnesota	8.03	8.72	8.22	7.95	8.09	8.20
Mississippi	7.98	8.08	8.31	7.97	7.66	8.00
Missouri	10.39	10.97	10.37	12.76	11.90	11.28
Montana	8.64	10.43	9.37	9.50	10.30	9.65
Nebraska	10.05	9.62	9.22	9.31	9.67	9.57
Nevada	11.84	12.26	12.28	12.73	13.75	12.57
New Hampshire	9.39	10.13	9.69	9.89	10.40	9.90
New Jersey	9.75	11.34	10.41	9.55	10.30	10.27
New Mexico	10.87	10.39	9.92	9.99	9.57	10.15
New York	9.32	9.73	9.42	9.44	9.15	9.41
North Carolina	9.35	10.24	10.24	9.76	10.52	10.02
North Dakota	11.02	9.81	8.84	8.96	9.12	9.55
Ohio	7.75	7.94	7.86	7.59	7.96	7.82
Oklahoma	9.51	9.17	8.99	9.46	9.40	9.30
Oregon	9.59	9.31	9.23	9.58	9.72	9.49
Pennsylvania	8.23	8.55	8.22	8.16	8.11	8.25
Rhode Island	9.66	10.36	9.54	10.00	10.31	9.97
South Carolina	9.55	9.63	9.55	9.73	11.74	10.04
South Dakota	8.60	8.66	8.45	8.70	8.90	8.66
Tennessee	9.08	9.54	9.58	9.43	9.84	9.49
Texas	10.07	10.57	10.75	10.93	11.17	10.70
Utah	12.04	12.35	12.25	12.63	14.03	12.66
Vermont	8.62	8.29	8.68	8.29	8.89	8.55
Virginia	8.33	14.27	9.54	8.85	8.70	9.94
Washington	**8.53**	**8.16**	**10.17**	**9.54**	**14.36**	**10.15**
West Virginia	7.88	7.68	7.52	7.69	7.70	7.69
Wisconsin	8.64	8.88	9.11	8.91	8.91	8.89
Wyoming	9.08	11.36	9.62	9.61	9.56	9.85
U.S. Average	9.41	9.83	9.54	9.59	9.90	9.59
Washington's Rank	**35**	**44**	**15**	**24**	**1**	**14**

SOURCE: BLS Quarterly Census of Employment and Wages

Table 1.14
Innovation Drivers
Interstate Miles in Poor Condition
(Percent)

	2013	2014	2015	2016	2017	2013-17
Alabama	4.1	3.3	3.3	2.4	2.8	3.2
Alaska	10.5	9.6	8.5	10.1	10.0	9.7
Arizona	1.4	1.6	1.0	1.4	1.7	1.4
Arkansas	6.2	5.0	4.8	6.1	4.1	5.2
California	10.0	10.8	5.3	8.6	8.7	8.7
Colorado	6.4	5.6	5.3	5.8	5.5	5.7
Connecticut	3.5	3.8	3.4	2.4	2.0	3.0
Delaware	10.3	10.3	1.9	11.2	11.4	9.0
Florida	0.6	0.6	0.6	0.6	0.4	0.6
Georgia	2.5	2.4	2.2	2.2	2.0	2.3
Hawaii	31.5	22.2	25.1	21.8	21.3	24.4
Idaho	2.8	1.7	1.9	1.5	1.0	1.8
Illinois	0.0	0.4	0.4	0.4	2.2	0.7
Indiana	5.4	5.1	5.3	5.1	4.2	5.0
Iowa	4.4	3.5	1.7	2.7	2.7	3.0
Kansas	0.0	1.1	1.2	0.5	1.0	0.8
Kentucky	0.6	0.6	1.4	0.9	1.3	1.0
Louisiana	8.2	6.6	8.0	7.4	8.0	7.6
Maine	0.2	0.1	0.8	1.0	0.8	0.6
Maryland	5.8	5.5	5.7	5.0	5.3	5.5
Massachusetts	4.8	0.0	5.0	4.3	3.5	3.5
Michigan	5.8	6.4	6.0	5.2	5.6	5.8
Minnesota	4.4	3.8	4.2	2.8	3.0	3.7
Mississippi	2.3	2.8	3.1	3.9	2.4	2.9
Missouri	1.3	1.6	1.6	1.4	1.4	1.5
Montana	0.9	0.7	0.9	0.9	1.8	1.0
Nebraska	0.3	0.3	0.9	1.1	1.2	0.8
Nevada	2.0	13.2	1.0	1.2	1.3	3.7
New Hampshire	1.2	0.6	0.2	0.2	0.1	0.5
New Jersey	8.6	8.7	9.0	9.0	8.9	8.8
New Mexico	0.8	0.9	1.0	1.3	0.8	0.9
New York	7.1	7.5	7.9	7.3	7.0	7.4
North Carolina	1.6	1.2	1.2	1.6	2.4	1.6
North Dakota	0.2	0.2	0.2	0.3	0.4	0.2
Ohio	0.9	0.9	2.8	3.2	3.4	2.2
Oklahoma	2.1	2.3	4.3	3.9	3.4	3.2
Oregon	2.1	1.7	2.0	1.4	1.4	1.7
Pennsylvania	1.0	2.8	2.9	2.9	3.4	2.6
Rhode Island	0.3	1.2	4.1	1.9	1.5	1.8
South Carolina	0.3	0.3	1.1	2.4	4.0	1.6
South Dakota	0.2	0.2	0.8	1.0	1.1	0.7
Tennessee	1.1	1.2	1.0	1.1	0.9	1.1
Texas	3.3	2.5	2.8	2.9	1.8	2.7
Utah	0.1	0.0	0.8	0.8	0.9	0.5
Vermont	0.2	0.1	0.1	0.2	0.3	0.2
Virginia	4.1	2.6	2.1	1.6	1.5	2.4
Washington	**6.7**	**5.1**	**5.6**	**6.0**	**6.3**	**6.0**
West Virginia	1.0	1.0	2.0	1.7	1.8	1.5
Wisconsin	5.0	4.9	6.0	4.9	4.8	5.1
Wyoming	1.9	2.1	2.0	1.8	1.8	1.9
U.S. Average	3.3	3.3	3.1	3.2	3.3	3.2
Washington's Rank	**43**	**39**	**42**	**42**	**43**	**43**

Source: Federal Highway Administration, Highway Statistics, Table HM-64, October 2018

Table 1.15
Innovation Drivers
FAA Air Traffic Delays
Delays Per 1000 Operations

	2014	2015	2016	2017	2018	2014-2018
Alabama	0.0	0.0	0.0	0.0	0.0	0.0
Alaska	0.2	0.2	0.1	0.2	0.4	0.2
Arizona	1.0	1.4	2.1	1.4	3.6	1.9
Arkansas	0.0	0.0	0.0	0.0	0.0	0.0
California	2.9	3.2	3.5	6.0	4.2	4.0
Colorado	2.1	2.1	1.5	1.4	1.5	1.7
Connecticut	0.0	0.1	0.0	0.0	0.0	0.0
Delaware	0.0	0.0	0.0	0.0	0.0	0.0
Florida	3.1	1.8	2.0	2.8	2.3	2.4
Georgia	2.7	2.8	2.1	2.5	3.0	2.6
Hawaii	0.1	0.1	0.1	0.1	0.1	0.1
Idaho	0.0	0.0	0.3	0.1	0.1	0.1
Illinois	10.7	6.5	5.0	4.1	7.4	6.7
Indiana	0.3	0.4	0.3	0.4	0.8	0.4
Iowa	0.0	0.0	0.0	0.0	0.0	0.0
Kansas	0.3	0.3	0.2	0.3	0.7	0.4
Kentucky	0.2	0.3	0.1	0.4	1.1	0.4
Louisiana	0.0	0.0	0.0	0.0	0.0	0.0
Maine	0.0	0.0	0.1	0.0	0.1	0.0
Maryland	2.4	3.5	0.8	1.2	3.0	2.2
Massachusetts	8.8	10.4	6.8	20.2	19.8	13.2
Michigan	1.7	1.4	0.8	1.2	1.1	1.2
Minnesota	1.1	2.2	2.2	0.9	1.2	1.5
Mississippi	0.0	0.0	0.0	0.0	0.0	0.0
Missouri	0.0	0.0	0.0	0.0	0.0	0.0
Montana	0.0	0.0	0.0	0.0	0.0	0.0
Nebraska	0.0	0.0	0.0	0.0	0.0	0.0
Nevada	3.1	3.6	4.0	4.1	2.8	3.5
New Hampshire	1.3	1.1	1.1	1.4	1.3	1.3
New Jersey	38.8	28.0	29.1	66.0	62.0	44.8
New Mexico	0.4	0.5	0.6	0.7	1.0	0.6
New York	12.1	13.3	13.8	17.7	14.6	14.3
North Carolina	3.7	4.7	3.4	4.7	5.2	4.4
North Dakota	0.0	0.0	0.0	0.0	0.0	0.0
Ohio	2.4	2.1	1.3	2.0	2.9	2.1
Oklahoma	0.0	0.0	0.0	0.0	0.0	0.0
Oregon	0.1	0.2	0.2	0.2	0.5	0.2
Pennsylvania	16.3	14.4	7.3	14.0	15.7	13.5
Rhode Island	0.1	0.1	0.0	0.3	0.1	0.1
South Carolina	0.0	0.0	0.0	0.0	0.0	0.0
South Dakota	0.0	0.0	0.0	0.0	0.0	0.0
Tennessee	0.2	0.2	0.3	0.6	0.5	0.4
Texas	2.0	2.5	2.5	2.7	3.7	2.7
Utah	0.4	0.4	0.4	0.5	0.5	0.4
Vermont	0.0	0.1	0.1	0.1	0.0	0.1
Virginia	3.3	3.2	2.7	4.3	4.4	3.6
Washington	**0.3**	**1.2**	**2.1**	**4.5**	**6.6**	**3.0**
West Virginia	0.0	0.0	0.0	0.0	0.0	0.0
Wisconsin	0.0	0.0	0.0	0.0	0.0	0.0
Wyoming	0.0	0.0	0.0	0.0	0.0	0.0
U.S. Average	3.5	3.3	3.0	4.4	4.3	3.7
Washington Rank	**27**	**32**	**39**	**44**	**45**	**41**

SOURCE: FAA Air Traffic System Management, Air Traffic Activity and Delay Report, 2018

Table 1.16

Innovation Drivers

Households With A Broadband Internet Subscription

(Percent)

	2013	2014	2015	2016	2017	2013-17
Alabama	63.50	65.80	68.30	74.70	78.10	70.08
Alaska	79.00	81.40	81.70	85.70	86.10	82.78
Arizona	73.90	75.50	78.10	83.10	85.70	79.26
Arkansas	60.90	63.50	64.20	70.90	73.00	66.50
California	77.90	80.00	81.30	85.40	87.70	82.46
Colorado	79.40	81.20	83.00	86.90	88.20	83.74
Connecticut	77.50	80.50	82.00	84.10	85.50	81.92
Delaware	74.50	75.50	77.40	83.30	86.20	79.38
Florida	74.30	75.80	77.50	81.20	83.20	78.40
Georgia	72.20	73.40	74.80	80.70	82.70	76.76
Hawaii	78.60	80.60	82.20	83.20	84.50	81.82
Idaho	73.20	73.60	76.70	79.40	82.50	77.08
Illinois	74.00	75.50	76.90	82.00	83.60	78.40
Indiana	69.70	71.40	73.30	79.20	81.20	74.96
Iowa	72.20	74.20	75.00	79.60	81.80	76.56
Kansas	73.00	74.50	76.20	80.30	83.00	77.40
Kentucky	68.50	68.90	70.90	77.30	78.90	72.90
Louisiana	64.80	66.60	68.70	74.40	75.60	70.02
Maine	72.90	74.90	77.10	80.70	82.00	77.52
Maryland	78.90	80.10	81.40	85.80	87.70	82.78
Massachusetts	79.60	80.50	82.60	85.50	86.80	83.00
Michigan	70.70	72.90	74.40	80.50	82.80	76.26
Minnesota	76.50	78.30	79.50	83.50	85.90	80.74
Mississippi	57.40	59.10	61.00	70.70	73.40	64.32
Missouri	69.80	71.60	73.30	79.30	81.30	75.06
Montana	72.10	72.90	75.00	78.90	81.30	76.04
Nebraska	72.90	74.80	78.10	81.60	84.40	78.36
Nevada	75.60	76.30	79.00	80.90	83.40	79.04
New Hampshire	80.90	82.10	84.50	86.40	88.40	84.46
New Jersey	79.10	80.90	81.60	84.20	86.80	82.52
New Mexico	64.40	67.50	67.20	73.70	76.40	69.84
New York	75.30	76.50	77.80	81.70	83.40	78.94
North Carolina	70.80	72.40	74.10	79.00	81.60	75.58
North Dakota	72.50	74.70	76.30	81.40	81.30	77.24
Ohio	71.20	73.90	76.10	80.90	83.20	77.06
Oklahoma	66.70	69.20	70.80	77.20	79.70	72.72
Oregon	77.50	78.90	80.80	84.90	86.80	81.78
Pennsylvania	72.40	73.90	75.70	80.50	81.50	76.80
Rhode Island	76.50	76.50	78.20	82.80	85.50	79.90
South Carolina	66.60	68.10	69.90	77.00	79.20	72.16
South Dakota	71.10	71.60	75.30	79.50	80.60	75.62
Tennessee	67.00	68.20	70.20	76.70	79.40	72.30
Texas	71.80	73.00	74.30	80.50	83.30	76.58
Utah	79.60	81.70	83.10	85.40	87.80	83.52
Vermont	75.30	76.30	78.70	81.10	81.40	78.56
Virginia	75.80	77.20	78.60	83.40	84.80	79.96
Washington	**78.90**	**81.90**	**83.90**	**87.40**	**89.10**	**84.24**
West Virginia	64.90	66.20	69.80	74.20	76.00	70.22
Wisconsin	73.00	75.30	76.90	81.30	83.30	77.96
Wyoming	75.50	76.10	77.80	83.20	83.70	79.26
50 State Average	72.81	74.43	76.22	80.82	82.79	77.42
Washington's Rank	**7**	**2**	**2**	**1**	**1**	**2**

Source: US Census Bureau, American Community Survey, 2017

Table 1.17
Innovation Drivers
Unlinked Passenger Trips
(Per Capita)

	2013	2014	2015	2016	2017	2013-17
Alabama	1.6	1.6	1.8	1.7	1.6	1.7
Alaska	6.9	6.8	9.3	8.8	8.5	8.0
Arizona	15.1	14.6	14.4	12.9	13.5	14.1
Arkansas	2.0	2.0	2.2	2.1	2.1	2.1
California	37.5	37.6	36.8	35.7	33.6	36.2
Colorado	20.8	21.2	23.0	23.3	22.3	22.1
Connecticut	12.5	12.7	12.7	12.7	11.8	12.5
Delaware	12.1	11.7	10.9	9.9	8.8	10.7
Florida	14.6	14.3	13.8	12.6	11.5	13.4
Georgia	16.2	15.8	16.5	15.7	14.5	15.7
Hawaii	51.9	49.7	52.9	51.9	49.7	51.2
Idaho	1.7	1.5	2.1	1.9	2.1	1.8
Illinois	52.3	51.3	51.7	50.0	48.5	50.7
Indiana	5.3	5.3	5.4	5.2	4.9	5.2
Iowa	7.3	7.7	9.2	8.9	8.2	8.3
Kansas	2.6	2.6	3.1	2.5	2.9	2.8
Kentucky	6.1	5.6	6.0	5.7	5.6	5.8
Louisiana	8.3	7.5	7.3	7.2	7.2	7.5
Maine	4.1	4.0	5.0	5.2	5.3	4.7
Maryland	24.2	25.1	25.8	25.1	23.4	24.7
Massachusetts	63.3	65.0	65.3	64.8	61.0	63.9
Michigan	10.0	9.3	9.7	9.6	9.4	9.6
Minnesota	19.1	19.4	20.2	19.5	19.3	19.5
Mississippi	0.7	0.6	1.5	1.5	1.5	1.2
Missouri	11.3	11.6	11.4	10.6	10.3	11.0
Montana	2.4	2.4	3.9	4.3	4.2	3.5
Nebraska	3.5	3.6	3.7	3.6	3.6	3.6
Nevada	26.8	26.4	28.6	28.1	26.9	27.4
New Hampshire	2.9	3.0	3.3	3.3	3.1	3.1
New Jersey	44.2	46.1	46.9	47.2	46.6	46.2
New Mexico	7.8	7.9	8.4	7.8	7.1	7.8
New York	202.1	205.5	200.7	202.1	201.0	202.3
North Carolina	7.4	7.4	7.5	7.2	6.9	7.3
North Dakota	3.5	3.5	4.0	3.8	3.6	3.7
Ohio	9.7	9.8	9.8	9.4	8.7	9.5
Oklahoma	2.0	2.1	3.0	2.9	2.8	2.5
Oregon	31.8	31.6	32.3	31.5	30.6	31.6
Pennsylvania	36.1	35.3	35.3	36.0	33.4	35.2
Rhode Island	19.4	19.4	17.5	17.2	15.8	17.8
South Carolina	2.4	2.3	2.6	2.4	2.3	2.4
South Dakota	1.8	1.7	3.4	3.3	3.3	2.7
Tennessee	4.8	4.4	5.0	4.9	4.7	4.8
Texas	11.0	10.6	10.4	10.0	9.7	10.3
Utah	16.1	16.6	17.1	16.3	15.9	16.4
Vermont	4.4	4.1	11.6	9.1	8.9	7.6
Virginia	8.9	8.8	8.9	8.5	8.3	8.7
Washington	**35.0**	**35.5**	**35.9**	**36.1**	**36.0**	**35.7**
West Virginia	4.6	4.5	5.1	4.6	4.4	4.6
Wisconsin	12.3	12.1	12.1	12.0	10.8	11.9
Wyoming	0.8	0.9	4.4	4.5	4.3	3.0
U.S. Average	31.4	31.5	31.3	30.7	29.9	31.4
Washington's Rank	**8**	**7**	**7**	**6**	**6**	**7**

Source: Federal Transit Administration, National Transit Database, data through 2016

Table 1.18
Innovation Drivers
Rail Freight Value
(Millions of Dollars)

	2014	2015	2016	2017	2018	2014-18
Alabama	3,332	3,276	3,253	3,339	3,521	3,300
Alaska	44	13	31	17	22	26
Arizona	3,245	3,589	2,544	1,927	1,742	2,826
Arkansas	832	637	612	742	832	706
California	23,200	24,894	27,786	26,916	21,519	25,699
Colorado	534	370	433	488	570	456
Connecticut	752	676	757	1,050	1,236	809
Delaware	1,331	305	155	475	941	567
Florida	1,295	1,196	1,183	1,165	1,320	1,210
Georgia	3,144	2,692	2,546	2,453	2,505	2,709
Hawaii	0.09	0.19	0.36	0.60	0.53	0.31
Idaho	670	544	552	631	778	599
Illinois	8,900	8,566	8,535	9,543	10,380	8,886
Indiana	5,996	5,400	5,240	6,219	5,998	5,714
Iowa	3,238	2,580	2,933	3,083	3,039	2,958
Kansas	1,872	1,452	1,349	1,314	1,433	1,497
Kentucky	4,190	3,694	4,759	5,090	4,902	4,433
Louisiana	3,395	2,663	2,244	2,841	4,053	2,786
Maine	437	328	306	264	295	334
Maryland	662	478	453	437	438	507
Massachusetts	836	620	535	659	749	663
Michigan	45,031	46,509	50,025	52,149	52,147	48,428
Minnesota	3,077	2,483	2,121	2,238	2,250	2,480
Mississippi	1,695	1,453	1,553	1,409	1,393	1,528
Missouri	2,468	2,459	3,008	3,349	3,355	2,821
Montana	323	236	200	282	302	260
Nebraska	1,233	1,085	1,202	1,397	1,678	1,229
Nevada	446	337	310	316	293	352
New Hampshire	112	91	128	100	82	108
New Jersey	2,219	1,999	2,072	2,293	2,256	2,146
New Mexico	227	104	95	108	129	133
New York	1,801	1,467	1,343	1,313	1,563	1,481
North Carolina	1,489	1,371	1,210	1,293	1,746	1,341
North Dakota	2,704	1,541	992	928	1,007	1,541
Ohio	5,903	5,433	5,020	4,522	5,082	5,219
Oklahoma	474	330	327	379	1,029	377
Oregon	1,640	1,370	1,006	1,280	1,675	1,324
Pennsylvania	3,229	2,589	2,606	2,943	2,800	2,842
Rhode Island	74	71	82	88	51	79
South Carolina	1,471	1,464	1,532	1,458	1,594	1,481
South Dakota	309	411	222	321	378	316
Tennessee	4,916	4,470	3,827	4,347	5,321	4,390
Texas	21,259	17,634	14,555	16,254	19,123	17,426
Utah	446	594	559	559	653	540
Vermont	243	181	144	176	185	186
Virginia	731	584	570	527	620	603
Washington	**2,002**	**1,542**	**1,529**	**2,048**	**2,168**	**1,780**
West Virginia	984	702	699	614	513	750
Wisconsin	2,715	2,486	2,196	2,624	2,932	2,505
Wyoming	720	251	213	174	235	339
50 State Average	3,557	3,304	3,311	3,483	3,577	3,414
Washington Rank	**20**	**19**	**21**	**18**	**18**	**19**

Source: United States Department of Transportation, Bureau of Transportation Statistics, 2018

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Chapter 2: Business Performance – Summary

- **Washington rank remained at 6th best in the nation in *Business Performance* this year.**
- **Of the ten indicators in this category, five improved, two worsened and one was unchanged. Two indicators were not updated.**
- **Business Performance has been broken out into two subcategories: *Business Prosperity* and *Cost of Doing Business*.**
- **In the subcategory *Business Prosperity*, Washington's rank improved in two indicators, worsened in one, remained unchanged in one, and two were not updated.**
- **In the subcategory *Cost of Doing Business*, three indicators improved and one worsened.**

Business Prosperity

Foreign Exports Inclusive and Exclusive of Transportation Equipment

In 2018 Washington's foreign exports totalled 17.02 percent of personal income, ranking 5th in the nation.

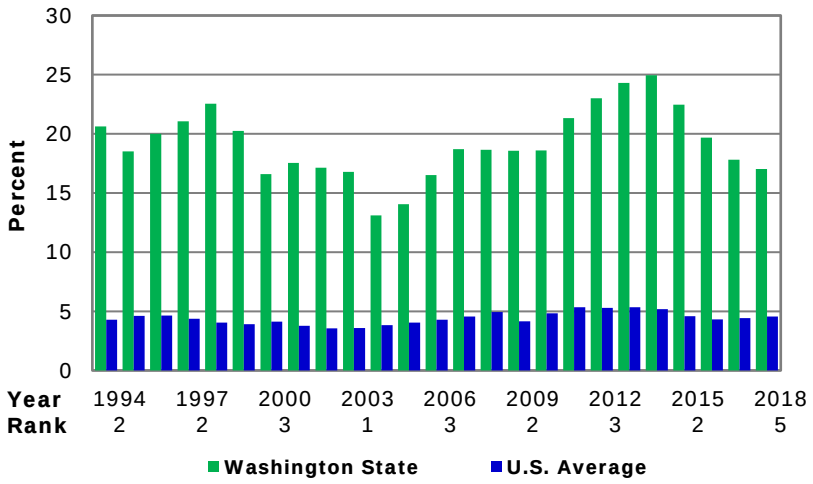
In 2018, Washington's ranking in foreign exports as a percent of personal income decreased to 5th place from 3rd the year before. Washington's foreign exports were 17.02 percent of personal income in 2018, a drop of 0.8 percentage points from the year before. Despite the decrease, Washington's rate remains well above the national average of 4.55 percent. Number-one-ranked Louisiana had exports constituting 28.18 percent of personal income. Washington is 3rd in its five-year ranking with 20.39 percent, with Texas ranked 2nd and Louisiana ranked 1st. Louisiana ranks high in this category due largely to its exports of refined petroleum products.

Washington exports are led by transportation equipment

Washington's perennially strong performance in this category is due mainly to the presence of Boeing and PACCAR, two of the world's leading manufacturers of commercial aircraft and trucks, respectively. Exports of transportation equipment from these and other Washington manufacturers account for over half of Washington's exports. Excluding the exports of these products, Washington's exports were equivalent to 7.68 percent of personal

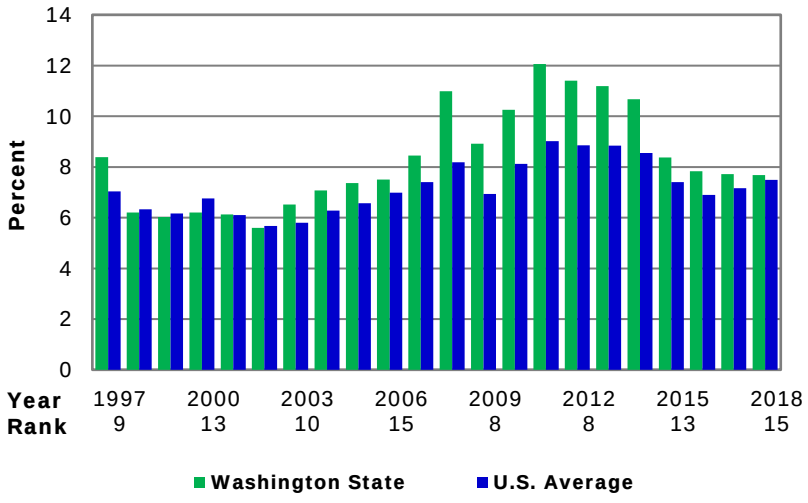
income in 2018. Even when not including transportation equipment, this number is still above the U.S. average of 7.48 percent. The state's ranking remained at 15th. For the past five years, Washington's average rank has been 14th in the nation.

Figure 2.1: Total Foreign Exports



Source: U.S. Department of Commerce, Bureau of the Census, Foreign Trade Division, Bureau of Economic Analysis; data through 2018

Figure 2.2: Foreign Exports Excluding Transportation Equipment



Source: U.S. Department of Commerce, Bureau of the Census, Foreign Trade Division, Bureau of Economic Analysis; data through 2018

Trade in services, which Washington…

It must be noted that the trade data used for this indicator, obtained from the U.S. Bureau of the Census, only include trade in goods, ignoring trade in service exports, which are difficult to

…does well in, are not included in this measure

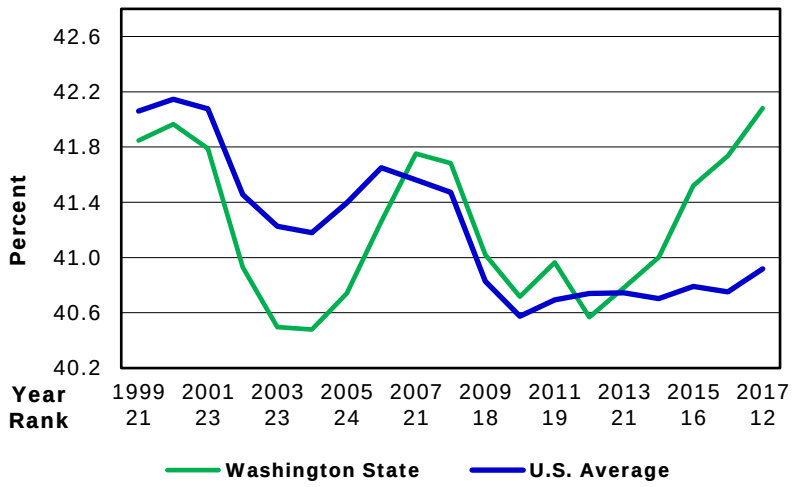
track and credit to specific states. Software, one of Washington's main exports, is classified as a service when it is not exported on physical media and is therefore not included in the Census measure. As software giant Microsoft contributes greatly to state personal income while the majority of its exports are not included in the trade data, the measure of Washington exports as a percent of personal income understates the contribution of trade to Washington's economy.

High Wage Industries' Share of Total Employment

Average wages and salaries are derived from data published by the BEA

As part of its annual release of personal income data, the U.S. Bureau of Economic Analysis (BEA) publishes wages and salaries by industry and full-time and part-time employment by industry for each state and the nation as a whole. The BEA publishes state level data for 93 industry categories corresponding to various combinations of two- to four-digit North American Industry Classification System (NAICS) categories. By dividing wages and salaries by full-time and part-time employment, average wages and salaries can be computed for each industry.

Figure 2.3: High Wage Industries' Share of Total Employment



Source: BEA, Washington State Office of the Economic and Revenue Forecast Council; data through 2017

This measure defines high wage jobs as jobs in industries whose average wages and salaries are above the national average

In 2017, overall average wages and salaries in the United States was $51,960 per full-time and part-time job. This measure defines "high wage jobs" as those in industries whose average wages and salaries are higher than the overall average for all industries. The high wage industries are selected based on the data for the United States as a whole. The number of jobs in each state that are in the industries categorized as high wage is divided by the total number of jobs to determine the high wage

industries' share of total employment. Annual growth in high wage industries' share of total employment is calculated as the percent share of jobs that are high wage in a given year minus the percent share of the previous year. It should be noted that the BEA employment statistics used in computing this measure are slightly different from the U.S. Bureau of Labor Statistics (BLS) employment statistics reported elsewhere in this publication.

A noneconomic reclassification reduced reported growth in the ratio in 2012

The ratio of high wage jobs to total jobs in Washington State has been increasing since 2012. The apparent decline in 2012 was entirely due to a noneconomic reclassification of employees of certain state-funded programs that provide services for the elderly and disabled. This reclassification increased the count of employees in the social assistance sector, which is a below average wage industry, from 2012 on, thus reducing the reported high wage share. The number of affected employees in 2012 averaged 46,360.

The currently defined ratio is much more cyclical than the previously defined ratio

In our 2015 report we noted that the ratio of high wage jobs to total jobs in Washington State has been increasing since 2004. The current tabulation, however, shows an increasing trend only since 2012. The reason is that in the data for 2015 onward, specialty trade contractors, which accounts for about 60% of construction employment, is a higher-than-average-wage sector. Previously it was not. The other 40% of construction employment has always been considered high wage. As construction in general waxes and wanes, the two groups of construction employment used to offset each other. Now they do not. The result is a much more cyclical ratio of high wage to total employment.

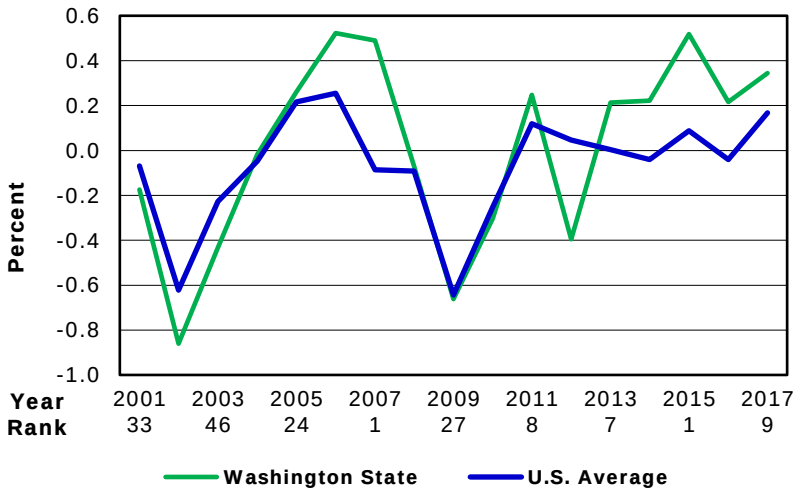
WA's above average growth can be attributed to IT, construction, and aerospace

Washington's above average growth in the high wage share can be attributed to information technology, construction, and aerospace. Nonstore retailing was the single largest contributor to Washington's above average performance. In Washington State, electronic shopping (e.g. Amazon) accounts for 88% of nonstore retail employment. Washington nonstore retail employment increased 156% from 2010 to 2015 compared to 23% for the nation. Publishing industries employment (90% software in Washington), data processing, hosting, and related services employment and "other" information services employment (91% web search portals in Washington), also all grew much faster in Washington than in the U.S. as a whole. Through it is declining now, transportation equipment (89% aerospace in Washington) grew enough in the earlier years to have a positive impact over the five-year span. Finally, Washington has been leading the nation in construction employment growth in the last five years. Together, these industries account for about three-quarters of the difference between the growth of the high wage share in Washington and the high wage share in the nation.

Washington's high wage ratio exceeds the national average

Washington's ratio of high wage jobs to total jobs has exceeded the national average since 2007 (see Figure 2.3). However, it should be noted that, because of the aforementioned social assistance classification issue, the two series are not exactly comparable prior to 2012. If the affected employees had always been classified in social assistance, the Washington ratio would have been lower than shown prior to 2012. In the years that are strictly comparable, the difference between the Washington ratio and the U.S. ratio grew from essentially zero (both were 41.2%) to .90% (Washington was 42.1% and the U.S. was 40.9%). Over this period, Washington's rank improved from 21st highest in the nation to 12th.

Figure 2.4: Growth in High Wage Industries' Share of Total Employment



Source: BEA, Washington State Office of the Forecast Council; data through 2017

Washington growth in its share of high-wage jobs ranked 1st in 2015

Washington's rank in the growth of its share of jobs in high wage industries had been improving in the three years prior to 2016, ranking 1st in 2015 (see Table 2.4). In 2012, the rank retreated to 49th best from 8th best in 2011 due to the noneconomic reclassification discussed earlier. In 2017, Washington improved its rank from 2016, moving from 10th to 9th in the nation.

Value Added Per Hour of Labor in Manufacturing

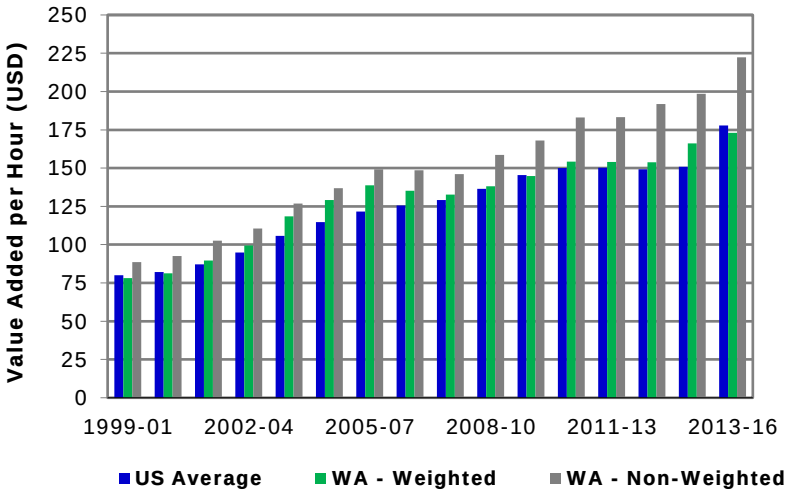
Value added is the difference between raw and final goods value

Value added is a measure of manufacturing activity derived by subtracting the value of raw materials from the value of finished, final goods. An industry's total value added represents the amount of revenue the industry has available to pay wages, rent, taxes, interest, profit, and all other business costs aside from raw materials.

Data is presented in 3-year moving averages

The data used to estimate Value Added Per Hour of Labor in Manufacturing is from the Annual Survey of Manufactures (ASM), published by the Census Bureau. The ASM provides estimates of worker hours and value added for all manufacturing establishments with one or more paid employees. However, because the ASM is a sample survey, its estimates possess varying margins of error. To minimize the effects of these errors, the data in Table 2.5 are presented as three-year moving averages.

Figure 2.5: Value Added Per Hour of Labor in Manufacturing



Source: U.S. Department of Commerce, Census Bureau, Annual Survey of Manufactures; data through 2016

The amount of value added differs greatly across industries

The amount of value added per hour of labor varies greatly among different industries in manufacturing. Highly automated industries such as semiconductors have very high value added per hour since one person can operate a machine that puts out a large volume of high-value product, while less automated industries such as furniture manufacturing require more labor per dollar of added value. (Highly automated industries, however, also have much higher equipment costs, so high value added does not necessarily imply high profit.) Within a specific industry, interstate differences in value added per worker hour may be interpreted as differences in worker productivity between states.

Non-weighted values are unadjusted for industry mix

The differences in value-added across industries makes a state's average value added per worker-hour highly dependent upon its particular industry mix. The "Non-Weighted" values presented in Table 2.5 do not account for different industry concentrations among states. Thus, states with a large percentage of high value added industries, such as semiconductors in New Mexico, perform

very well in this measure. Washington also performs well, indicating an industry mix of higher-than-average labor productivity, ranking 6th in the most recent period.

Weighted value added figures assume each state has an identical mix of industries

To minimize the effects of industry mix on estimates of state productivity, the "Weighted" values in Table 2.5 represent value added per worker hour as if each state had an identical mix of industries. In this case, each state's worker hours in all of the 21 major NAICS manufacturing groups were adjusted to be identical in proportion to the national average.

The weighting system is problematic for two reason

This weighting method, however, is still susceptible to error for two main reasons. The first reason is that most states are either completely lacking in several industries or have only one representative of an industry, which makes the data unreportable by the Census due to disclosure laws (though the data are included in the totals). Alaska and Hawaii no longer report state wide manufacturing data, so these states are omitted. These omissions are treated as an undifferentiated "remainder" industry that can skew a state's average greatly depending upon what the productivity of the hidden industry is and the proportion of total hours the remainder represents. Alaska is a prime example, with all industries except food products hidden by disclosure laws. The second reason is that there is still a large degree of productivity variation within major NAICS categories. For example, NAICS group 334 includes semiconductor manufacturing along with computer, electronic instrument, and other electronics manufacturing industries with much lower labor productivity than semiconductors. Each state is given the same number of hours in group 334, therefore, those states who have a large percentage of semiconductor worker hours in that group will still record higher-than-average productivity in that group. For this reason, New Mexico still performs above average in the weighted results. Nevertheless, by accounting for most of the industry mix variation, the weighted results can still provide a general idea of where each state lies in the labor productivity spectrum.

Washington ranks well in both the weighted and non-weighted categories

Looking at the weighted measure, Washington's average value added per worker hour is lower due to the neutralization of its industry-mix advantage. Washington's weighted ranking fell from 7th in the 2012-15 period to 16th in the 2014-16 period. Washington's weighted value added was slightly lower than the U.S. average. In the "Non-Weighted" category, Washington greatly outperforms the national average. The state's three-year average value added per hour of labor is $222.41, whereas the national value is $177.76. Despite increasing from the period before, Washington's rank dropped to 6th in the nation.

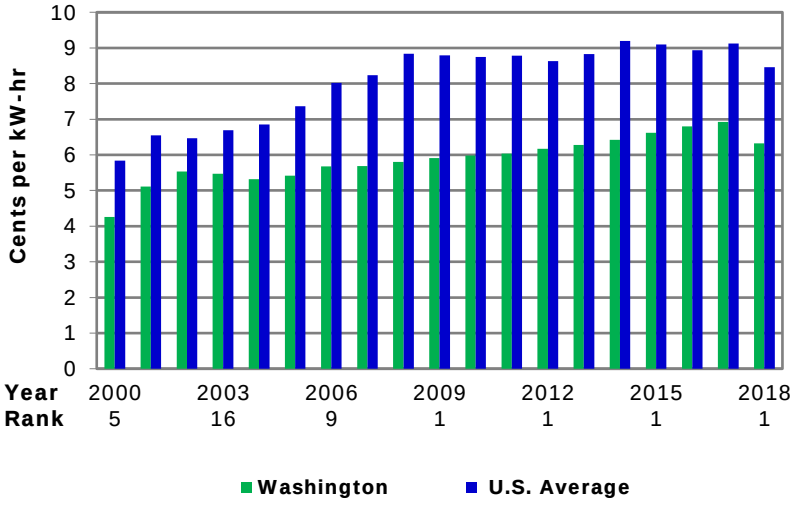
Cost of Doing Business

Electricity Prices

Electrical power represents the main energy cost for most businesses

Electrical power represents the main energy cost for most businesses, except for large industrial facilities relying extensively on fuel oil or natural gas. This indicator presents the average price of the commercial and industrial electricity purchases made annually in each state, expressed in cents per kilowatt-hour (kW-hr). To facilitate comparisons between states, each state is assumed to have had the same ratio of commercial to industrial sales as the U.S. in each year.

Figure 2.6: Electricity Prices



Source: U.S. Energy Information Administration (http://www.eia.doe.gov), data through 2018

Washington is 1st in the nation for electricity prices in 2018.

Due to the state's abundant hydrological resources, Washington has long enjoyed some of the lowest electricity prices in the country. Since 2009, the state has ranked either 1st or 2nd in the nation. In 2018, the state's cost of electricity was 6.33 cents per kilowatt-hour. This ranks Washington at 1st in the nation, something that was last achieved in 2015. Washington's five-year average is 6.62 cents per kilowatt-hour, ranking best in the nation, while the U.S. average is 8.96 cents.

State and Local Tax Collections Per $1,000 Personal Income

Taxes relative to personal income provides a good measure of tax burdens

The relative tax position of Washington is of considerable interest to taxpayers and government officials alike. The Census Bureau of the U.S. Department of Commerce annually collects data in order to compare tax burdens across states. Using this figure, tax burdens are then calculated using several different methods; this report compares tax collections per $1,000 of personal income. This measure is computed by dividing total state and local taxes by total state personal income. It is important to note a gap in the data in 2001 and 2003. The 2001 recession limited data collection during those periods.

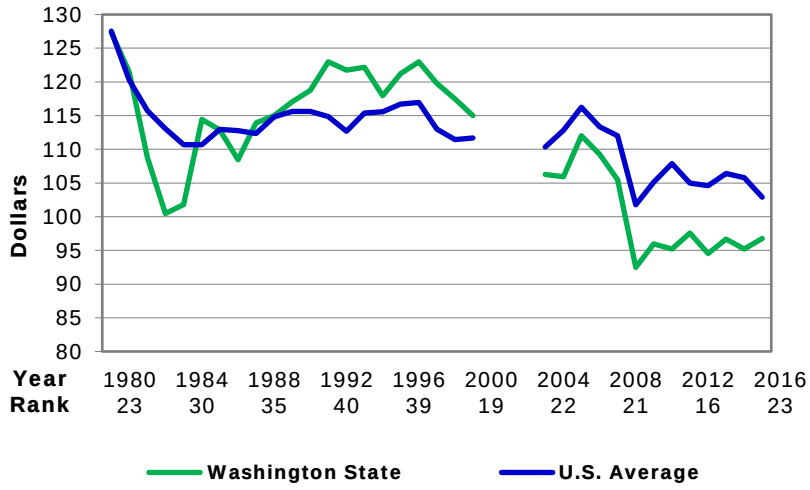
WA's tax burden has been below the national average for 15 straight years

Washington state tax collections per $1,000 personal income increased in 2016 to $96.78. With this increase, Washington's ranking dropped from 19th in the nation to 23rd. Washington's tax collections were below the U.S. average of $102.87. Washington's rank on average from 2012 to 2016 was 16th, with $95.99 per $1,000 personal income.

The WA DOR estimates that households pay 50.4 percent of the tax burden

The "initial incidence" of a tax refers to the party from whom the tax is collected. Initial incidence does not always indicate who actually bears the tax burden, because taxes initially paid by business may sometimes be recovered in the form of higher prices or lower wages, shifting the tax burden to consumers or workers. The Washington Department of Revenue estimates that businesses directly pay 45.6 percent of major state and local taxes, government pay 4.0 percent and households pay 50.4 percent.

Figure 2.7: State and Local Tax Collections Per $1,000 Personal Income



Source: Washington State Department of Revenue, Data through 2016

Unemployment Insurance Costs

UI benefits provide security to the jobless

Unemployment insurance programs are designed to provide economic security against the effects of unemployment by providing temporary compensation to workers who are out of work at no fault of their own.

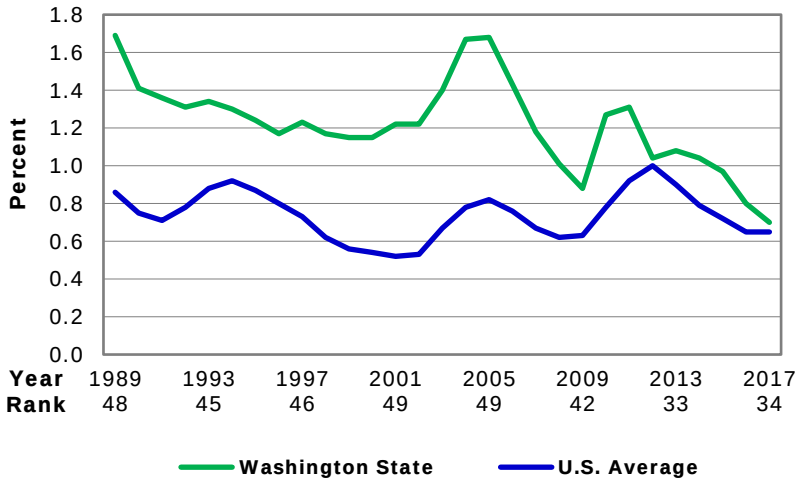
UI is a combined state federal system

Unemployment insurance is provided by a combined Federal-State system, primarily financed through a payroll tax on employers. Under this system, the Federal Government sets minimum standards of eligibility and benefits that the states are free to exceed. As a result, there is a wide degree of variation in the eligibility for and benefits paid under the unemployment insurance programs of different states, as well as variation in the number of employers that pay into the programs. This measure indicates the amount that each state collects for unemployment insurance benefits as a percent of the total wages of employees covered by the plans.

WA has some of the most generous UI benefits in the country

In 2017, Washington's average unemployment insurance cost as a percent of the total wages of covered employees was 0.70 percent, down from 0.80 percent in 2016. The national average rate for 2017 remained unchanged at 0.65 percent. The state's rank in 2017 improved to 34th lowest in the nation. In 2016, Washington's ranking was 36th. Washington's five-year average of 0.92 percent, however, ranked 37th lowest in the nation due to the state having one of the most generous unemployment insurance programs in the country in terms of benefits, eligibility and duration.

Figure 2.8: Unemployment Insurance Costs



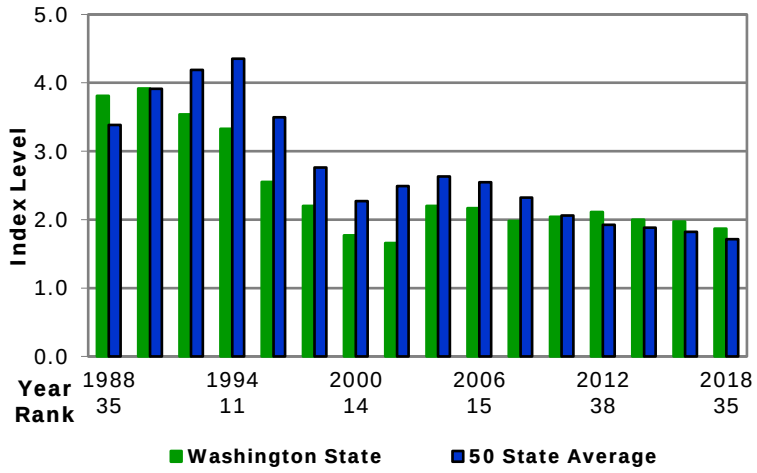
Source: U.S. Department of Labor, Employment, and Training Administration; data through 2017

Workers' Compensation Premium Costs

Index is updated every two years

The Oregon Department of Consumer & Business Services produces the workers' compensation premium index every two years in order to make a state-by-state comparison of workers' compensation premiums. The premium index is calculated by selecting Oregon's fifty largest business classes as defined by the workers' compensation costs and computing what those compensation claims would cost in other states.

Figure 2.9: Workers' Compensation Premium Costs



Source: Oregon Workers' Compensation Premium Rate Ranking; data through 2018

Premium costs are determined for every $100 of payroll

In 2018, Washington's premium costs for the industries examined by the study were $1.87 per $100 of payroll, a decrease from $0.10 per $100 of payroll in 2016. The state's rank improved from 36th in 2016 to 35th this past year. Washington's average rate of $2.00 per $100 of payroll for the period from 2010 through 2018 ranked 33rd among the states and was slightly above the national average of $1.88.

WA system is atypical of other states'

Washington's compensation system is atypical of other states' systems as employees pay a portion of their industrial premiums into a state fund and the Department of Labor and Industries acts as both the insurer and administrator of the workers' compensation system.

Table 2.1
Business Performance
Foreign Exports
(Percent of State Personal Income)

	2014	2015	2016	2017	2018	2014-18
Alabama	10.79	10.32	10.72	10.95	10.35	10.63
Alaska	12.49	10.92	10.49	11.68	11.00	11.32
Arizona	8.27	8.37	7.83	7.05	7.19	7.74
Arkansas	6.10	5.05	4.82	5.06	5.03	5.21
California	8.60	7.61	7.23	7.28	7.20	7.58
Colorado	3.09	2.80	2.62	2.63	2.57	2.74
Connecticut	6.66	6.20	5.77	5.74	6.53	6.18
Delaware	12.32	12.01	9.84	9.56	9.47	10.64
Florida	6.81	5.86	5.46	5.49	5.44	5.81
Georgia	9.88	9.13	8.12	8.09	8.44	8.73
Hawaii	2.16	2.70	1.09	1.26	0.85	1.61
Idaho	8.34	6.56	7.17	5.38	5.31	6.55
Illinois	10.72	9.54	8.86	9.39	9.03	9.51
Indiana	13.20	12.09	11.98	12.54	12.60	12.48
Iowa	10.86	9.18	8.35	9.05	9.33	9.35
Kansas	8.88	7.79	7.35	7.95	7.93	7.98
Kentucky	16.79	16.03	16.69	17.06	17.04	16.72
Louisiana	32.76	24.33	24.22	27.87	31.71	28.18
Maine	5.05	4.76	4.81	4.37	4.39	4.68
Maryland	3.76	2.95	2.73	2.53	3.18	3.03
Massachusetts	6.76	5.86	5.82	5.94	5.62	6.00
Michigan	14.12	12.51	12.32	13.01	12.20	12.83
Minnesota	7.86	7.03	6.59	6.83	7.17	7.09
Mississippi	11.10	10.34	9.83	10.06	10.25	10.31
Missouri	5.64	5.25	5.25	5.17	5.09	5.28
Montana	3.62	3.13	2.97	3.39	3.33	3.29
Nebraska	8.59	6.98	6.74	7.39	7.91	7.52
Nevada	6.55	6.83	7.47	8.79	7.58	7.44
New Hampshire	6.00	5.45	5.43	6.43	6.37	5.94
New Jersey	7.04	5.91	5.61	5.93	5.87	6.07
New Mexico	4.89	4.73	4.45	4.34	4.24	4.53
New York	7.89	7.09	6.35	6.08	6.31	6.74
North Carolina	7.91	7.19	6.96	7.18	6.88	7.22
North Dakota	13.33	9.96	13.31	14.78	19.12	14.10
Ohio	10.60	9.94	9.40	9.20	9.65	9.76
Oklahoma	3.58	3.04	3.06	3.08	3.36	3.22
Oregon	12.44	11.08	11.48	10.98	10.68	11.33
Pennsylvania	6.54	6.14	5.55	5.67	5.81	5.94
Rhode Island	4.69	4.02	4.24	4.28	4.17	4.28
South Carolina	16.44	16.08	15.67	15.39	15.94	15.90
South Dakota	3.96	3.42	2.91	3.20	3.25	3.35
Tennessee	12.41	11.56	10.78	10.88	10.24	11.17
Texas	22.83	19.40	17.96	19.73	22.39	20.46
Utah	10.80	10.92	9.41	8.59	10.04	9.95
Vermont	12.31	10.29	9.48	8.52	8.70	9.86
Virginia	4.61	4.04	3.64	3.54	3.78	3.92
Washington	**24.95**	**22.46**	**19.68**	**17.82**	**17.02**	**20.39**
West Virginia	11.39	8.61	7.47	10.18	11.21	9.77
Wisconsin	9.09	8.37	7.68	7.86	7.70	8.14
Wyoming	5.32	3.51	3.39	3.60	3.91	3.94
50 State Average	5.19	4.58	4.31	4.41	4.55	4.61
Washington's Rank	**2**	**2**	**2**	**3**	**5**	**3**

Source: U.S. Department of Commerce, Bureau of the Census, Foreign Trade Division, Bureau of Economic Analysis, 2018

Table 2.2
Business Performance
Foreign Exports (Excluding Transportation Equipment)
(Percent of State Personal Income)

	2014	2015	2016	2017	2018	2014-18
Alabama	5.96	5.33	5.12	5.45	5.52	5.47
Alaska	11.95	10.79	10.40	11.46	10.84	11.09
Arizona	6.82	6.74	6.13	5.89	5.92	6.30
Arkansas	4.40	4.09	3.59	3.64	3.77	3.90
California	7.67	6.78	6.41	6.46	6.42	6.75
Colorado	2.91	2.65	2.49	2.50	2.44	2.60
Connecticut	3.60	3.35	3.28	3.38	3.65	3.45
Delaware	11.10	9.09	7.33	7.63	7.74	8.58
Florida	5.79	4.91	4.58	4.54	4.48	4.86
Georgia	7.34	6.65	5.94	5.95	6.27	6.43
Hawaii	1.45	0.94	0.73	0.76	0.78	0.93
Idaho	7.96	6.35	6.36	5.16	5.07	6.18
Illinois	9.44	8.33	7.80	8.24	7.93	8.35
Indiana	9.27	8.75	8.29	8.72	8.63	8.73
Iowa	10.18	8.62	7.84	8.46	8.69	8.76
Kansas	7.04	5.90	5.61	5.84	6.05	6.09
Kentucky	8.39	7.81	7.37	7.33	7.62	7.70
Louisiana	32.31	24.06	23.83	27.59	31.47	27.85
Maine	4.69	4.17	4.17	3.86	3.91	4.16
Maryland	2.67	2.31	2.18	2.03	2.56	2.35
Massachusetts	6.44	5.57	5.58	5.72	5.41	5.75
Michigan	7.51	6.56	6.35	6.67	6.28	6.67
Minnesota	6.91	6.23	5.86	6.14	6.55	6.34
Mississippi	10.16	9.19	8.41	8.88	9.35	9.20
Missouri	4.31	4.05	3.69	3.74	3.70	3.90
Montana	3.46	3.00	2.69	3.26	3.17	3.12
Nebraska	8.15	6.64	6.46	7.06	7.60	7.18
Nevada	6.39	6.70	7.31	8.62	7.42	7.29
New Hampshire	5.77	5.19	4.98	5.66	5.19	5.36
New Jersey	6.55	5.48	5.13	5.52	5.50	5.63
New Mexico	4.63	4.54	4.21	4.09	3.99	4.29
New York	7.51	6.78	6.05	5.76	6.03	6.42
North Carolina	6.89	6.26	5.95	6.21	5.96	6.25
North Dakota	12.96	9.68	13.05	14.51	18.79	13.80
Ohio	7.38	6.88	6.54	6.44	6.69	6.79
Oklahoma	3.20	2.61	2.60	2.59	2.77	2.75
Oregon	11.48	10.43	10.48	10.42	9.78	10.52
Pennsylvania	5.89	5.47	4.97	5.16	5.30	5.36
Rhode Island	4.51	3.86	4.06	4.05	4.00	4.10
South Carolina	9.78	8.02	7.10	7.09	7.28	7.85
South Dakota	3.54	3.03	2.70	2.90	2.96	3.03
Tennessee	9.54	8.84	8.29	8.39	8.01	8.62
Texas	21.14	17.67	16.14	18.06	20.61	18.73
Utah	10.00	10.25	8.73	7.89	9.42	9.26
Vermont	11.96	10.04	9.21	8.30	8.48	9.60
Virginia	4.15	3.59	3.26	3.13	3.29	3.48
Washington	**10.67**	**8.37**	**7.83**	**7.71**	**7.68**	**8.45**
West Virginia	11.03	8.22	6.63	8.98	10.19	9.01
Wisconsin	8.26	7.55	6.83	6.90	6.92	7.29
Wyoming	5.29	3.48	3.35	3.58	3.86	3.91
U.S. Average	8.55	7.40	6.89	7.16	7.48	7.50
Washington's Rank	**9**	**13**	**12**	**15**	**15**	**14**

Source: U.S. Department of Commerce, Bureau of the Census, Foreign Trade Division, Bureau of Economic A
Trade data prepared by the United States Census Bureau

Table 2.3
Business Performance
High Wage Industries' Share of Total Employment
(Percent)

	2013	2014	2015	2016	2017	2013-17
Alabama	38.9	38.6	38.6	38.4	38.4	38.6
Alaska	37.0	37.1	37.3	36.8	36.8	37.0
Arizona	40.7	40.4	40.4	40.6	41.1	40.6
Arkansas	36.1	35.8	35.7	35.5	35.8	35.8
California	39.5	39.2	39.4	39.4	39.4	39.4
Colorado	41.7	41.9	42.0	42.0	42.2	42.0
Connecticut	42.8	42.5	42.5	42.4	42.4	42.5
Delaware	40.8	40.4	40.5	40.4	40.4	40.5
Florida	38.9	39.0	39.3	55.5	55.4	45.6
Georgia	39.4	39.6	39.8	39.6	40.0	39.7
Hawaii	30.4	30.2	30.5	39.9	40.0	34.2
Idaho	36.7	36.8	37.1	30.9	30.9	34.5
Illinois	42.2	42.0	42.1	37.1	37.1	40.1
Indiana	41.3	41.1	41.3	42.0	42.0	41.5
Iowa	37.4	37.9	37.8	41.4	41.9	39.3
Kansas	39.0	39.0	39.2	37.7	37.5	38.5
Kentucky	38.6	38.6	38.6	39.0	39.0	38.8
Louisiana	40.3	40.9	40.5	38.8	38.6	39.8
Maine	37.7	37.5	37.8	39.7	39.9	38.5
Maryland	43.7	43.4	43.5	37.8	37.9	41.3
Massachusetts	43.7	43.6	43.9	43.6	43.6	43.7
Michigan	43.4	43.6	43.9	44.1	44.3	43.9
Minnesota	42.5	42.6	42.8	44.1	44.4	43.3
Mississippi	32.5	32.1	31.8	42.8	42.9	36.4
Missouri	40.6	40.6	40.6	31.3	31.3	36.9
Montana	37.0	36.9	37.1	40.8	41.2	38.6
Nebraska	39.0	39.1	39.1	36.8	36.9	38.2
Nevada	31.5	31.5	31.8	39.0	39.1	34.6
New Hampshire	40.7	40.5	40.7	32.2	32.8	37.4
New Jersey	42.1	41.8	42.1	41.0	41.4	41.7
New Mexico	37.9	37.8	37.7	42.0	41.9	39.5
New York	42.0	42.0	42.2	37.3	37.7	40.2
North Carolina	36.7	36.8	37.0	42.3	42.5	39.1
North Dakota	43.2	43.7	43.1	37.3	37.6	41.0
Ohio	43.0	43.1	43.2	41.9	41.6	42.6
Oklahoma	40.3	40.4	39.9	43.1	43.3	41.4
Oregon	38.2	38.2	38.4	39.1	39.3	38.6
Pennsylvania	42.2	42.1	42.0	38.6	38.9	40.8
Rhode Island	41.3	41.3	41.2	41.7	41.8	41.5
South Carolina	35.2	35.1	35.2	41.2	41.2	37.6
South Dakota	40.2	40.2	40.5	35.6	35.9	38.5
Tennessee	38.9	39.0	39.3	40.5	40.5	39.6
Texas	43.6	43.7	43.5	39.3	39.4	41.9
Utah	42.8	42.8	43.1	43.0	43.1	43.0
Vermont	37.2	36.9	36.9	43.1	43.3	39.5
Virginia	42.4	42.0	41.9	36.8	36.8	40.0
Washington	**40.8**	**41.0**	**41.5**	**41.9**	**42.1**	**41.5**
West Virginia	41.0	40.7	40.1	41.7	42.1	41.1
Wisconsin	40.8	40.8	41.1	39.4	39.8	40.4
Wyoming	39.3	39.7	38.7	40.9	41.1	39.9
U.S. Average	40.7	40.7	40.8	40.8	40.9	40.8
Washington's Rank	**21**	**18**	**16**	**15**	**12**	**13**

Source: Washington State Office of the Forecast Council based on employment and personal income data provided by the U.S. Department of Commerce, Bureau of Economic Analysis, 2017.

Table 2.4
Business Performance
Change in High Wage Industries' Share of Total Employment
(Percent)

	2013	2014	2015	2016	2017	2013-17
Alabama	0.0	-0.3	-0.1	-0.1	0.0	-0.1
Alaska	0.1	0.1	0.2	-0.6	0.1	0.0
Arizona	0.1	-0.2	0.0	0.2	0.5	0.1
Arkansas	-0.4	-0.2	-0.1	-0.1	0.3	-0.1
California	-0.3	-0.3	0.1	0.0	0.0	-0.1
Colorado	0.1	0.3	0.1	-0.1	0.2	0.1
Connecticut	-0.2	-0.3	0.0	-0.1	0.0	-0.1
Delaware	-0.3	-0.4	0.1	-0.1	0.0	-0.1
Florida	0.1	0.1	0.3	0.3	0.4	0.2
Georgia	0.1	0.2	0.2	0.1	0.2	0.1
Hawaii	0.0	-0.1	0.3	0.4	0.0	0.1
Idaho	0.1	0.1	0.3	0.0	0.0	0.1
Illinois	0.0	-0.1	0.1	-0.1	0.0	0.0
Indiana	0.1	-0.1	0.2	0.2	0.5	0.1
Iowa	0.0	0.5	-0.1	-0.1	-0.2	0.0
Kansas	0.2	0.0	0.2	-0.2	0.0	0.0
Kentucky	-0.1	0.0	0.1	0.1	-0.1	0.0
Louisiana	0.4	0.5	-0.4	-0.7	0.1	0.0
Maine	-0.2	-0.2	0.3	0.0	0.1	0.0
Maryland	-0.1	-0.3	0.1	0.1	0.0	-0.1
Massachusetts	0.0	-0.1	0.3	0.2	0.2	0.1
Michigan	0.4	0.2	0.2	0.3	0.3	0.3
Minnesota	0.2	0.1	0.2	0.0	0.1	0.1
Mississippi	0.1	-0.4	-0.3	-0.4	0.0	-0.2
Missouri	0.0	0.1	0.0	0.2	0.4	0.1
Montana	0.3	-0.1	0.2	-0.4	0.1	0.0
Nebraska	0.1	0.0	0.0	-0.1	0.2	0.0
Nevada	0.2	0.0	0.3	0.4	0.6	0.3
New Hampshire	0.0	-0.2	0.2	0.3	0.4	0.1
New Jersey	0.1	-0.2	0.3	-0.1	-0.1	0.0
New Mexico	-0.1	-0.1	-0.1	-0.4	0.4	-0.1
New York	0.0	0.0	0.2	0.1	0.2	0.1
North Carolina	0.0	0.1	0.3	0.3	0.3	0.2
North Dakota	0.5	0.5	-0.6	-1.2	-0.2	-0.2
Ohio	0.1	0.1	0.0	-0.1	0.3	0.1
Oklahoma	-0.1	0.1	-0.5	-0.8	0.2	-0.2
Oregon	0.1	0.0	0.2	0.2	0.3	0.2
Pennsylvania	-0.1	-0.1	-0.1	-0.3	0.1	-0.1
Rhode Island	-0.1	-0.1	0.0	0.0	0.0	-0.1
South Carolina	0.0	-0.1	0.1	0.4	0.3	0.2
South Dakota	0.4	0.1	0.3	-0.1	0.0	0.1
Tennessee	-0.1	0.0	0.3	0.0	0.1	0.1
Texas	0.1	0.0	-0.2	-0.6	0.1	-0.1
Utah	0.2	0.0	0.3	0.0	0.2	0.1
Vermont	-0.2	-0.3	0.0	-0.1	0.0	-0.1
Virginia	-0.1	-0.4	-0.1	-0.1	0.2	-0.1
Washington	**0.2**	**0.2**	**0.5**	**0.2**	**0.3**	**0.3**
West Virginia	-0.4	-0.3	-0.6	-0.8	0.5	-0.3
Wisconsin	-0.2	0.0	0.3	-0.1	0.1	0.0
Wyoming	-0.4	0.5	-1.0	-1.9	-0.2	-0.6
U.S. Average	0.00	-0.04	0.09	-0.04	0.17	0.04
Washington's Rank	**7**	**7**	**1**	**10**	**9**	**2**

Source: Washington State Office of the Forecast Council based on employment and personal income data providec by the U.S. Department of Commerce, Bureau of Economic Analysis, 2017.

Table 2.5
Business Performance
Value Added per Hour of Labor in Manufacturing
(Three Year Average, Dollars)

	Weighted 2012-14	Weighted 2013-15	Weighted 2014-16	Non-Weighted 2012-14	Non-Weighted 2013-15	Non-Weighted 2014-16
Alabama	184.89	182.26	145.74	128.87	127.16	125.04
Alaska	NA	NA	68.69	NA	NA	63.44
Arizona	172.96	165.20	164.58	174.23	168.07	161.67
Arkansas	105.69	110.06	121.26	101.95	104.38	124.20
California	159.30	162.51	165.79	166.98	170.52	171.52
Colorado	139.08	145.79	152.41	159.68	162.38	161.89
Connecticut	159.97	166.45	147.65	170.01	177.55	143.29
Delaware	148.32	157.92	301.87	160.66	161.02	265.98
Florida	130.59	139.73	139.57	140.47	147.81	145.72
Georgia	131.62	133.70	174.30	124.90	126.60	163.28
Hawaii	NA	NA	114.68	NA	NA	85.43
Idaho	101.19	94.04	115.47	115.16	111.09	133.83
Illinois	141.58	139.44	174.04	144.26	142.42	176.03
Indiana	159.66	159.94	180.22	144.00	145.01	177.19
Iowa	153.47	157.10	181.88	153.17	156.19	197.69
Kansas	126.81	130.59	174.99	135.99	136.33	198.48
Kentucky	126.96	127.07	176.93	129.60	129.07	196.96
Louisiana	163.59	151.69	200.43	294.79	269.95	526.42
Maine	109.20	108.91	103.38	112.09	111.74	110.22
Maryland	165.49	167.80	162.45	183.98	188.37	169.86
Massachusetts	141.36	143.83	138.55	166.81	167.19	150.63
Michigan	127.19	129.83	158.03	122.49	124.22	171.38
Minnesota	144.32	145.37	163.82	140.45	141.61	148.61
Mississippi	115.43	112.11	164.89	107.88	104.79	149.55
Missouri	139.77	141.88	163.06	141.12	143.27	173.46
Montana	115.97	99.75	154.81	144.88	149.53	239.68
Nebraska	135.59	131.55	168.95	138.63	136.35	209.18
Nevada	129.84	133.06	149.91	158.30	158.92	148.07
New Hampshire	127.81	132.57	178.35	129.24	132.62	119.65
New Jersey	123.63	125.99	145.77	154.23	156.76	161.28
New Mexico	272.95	144.29	225.08	264.26	146.96	218.78
New York	131.90	133.82	139.74	137.70	141.03	137.34
North Carolina	164.18	169.12	175.38	170.74	172.17	167.39
North Dakota	162.47	149.95	260.96	148.12	145.07	207.20
Ohio	144.87	146.05	177.68	136.11	136.59	178.49
Oklahoma	131.58	132.40	153.90	126.11	126.20	172.75
Oregon	111.88	119.03	129.09	122.03	125.80	135.49
Pennsylvania	141.31	146.42	156.41	137.46	141.72	150.10
Rhode Island	113.89	125.12	127.27	117.70	117.81	118.86
South Carolina	126.09	128.26	174.84	125.94	128.01	176.40
South Dakota	102.39	107.14	138.90	107.39	109.96	136.98
Tennessee	139.22	140.73	147.41	140.71	141.05	151.61
Texas	179.47	181.89	216.65	206.05	206.14	234.82
Utah	142.96	141.01	157.05	154.15	151.12	164.42
Vermont	96.53	98.65	105.88	104.64	101.35	111.29
Virginia	151.82	153.12	139.75	172.86	172.85	144.52
Washington	**153.82**	**166.18**	**173.05**	**191.92**	**198.57**	**222.41**
West Virginia	110.60	85.27	131.51	158.98	170.18	188.03
Wisconsin	181.43	172.57	166.26	132.99	130.59	141.27
Wyoming	106.22	106.43	125.65	202.35	186.20	287.81
U.S.	149.14	150.84	177.76	149.14	150.84	177.76
WA Rank	**13**	**7**	**16**	**5**	**3**	**6**

Source: U.S. Department of Commerce, Census Bureau, Annual Survey of Manufactures (data), Economic and Revenue Forecast Council (calculations), 2018

Table 2.6
Business Performance
Electricity Prices
(Weighted Average of Industrial and Commercial Rates, Cents per Kilowatt Hour)

	2014	2015	2016	2017	2018	2014-18
Alabama	8.82	8.84	9.04	9.40	8.32	8.88
Alaska	16.48	16.24	16.61	18.28	17.59	17.04
Arizona	8.57	8.68	8.64	8.88	8.22	8.60
Arkansas	7.19	7.46	7.35	7.41	6.65	7.21
California	14.23	14.26	13.79	14.64	14.35	14.25
Colorado	8.97	8.85	8.68	8.85	8.45	8.76
Connecticut	14.43	14.72	14.55	14.95	14.75	14.68
Delaware	9.68	9.43	9.27	9.02	8.53	9.19
Florida	9.03	8.97	8.41	8.91	8.50	8.76
Georgia	8.78	8.23	8.19	8.26	7.40	8.17
Hawaii	32.52	25.33	23.03	25.21	25.84	26.39
Idaho	7.19	7.30	7.27	7.47	7.20	7.29
Illinois	8.24	8.05	8.00	7.84	7.43	7.91
Indiana	8.69	8.57	8.77	9.10	8.61	8.75
Iowa	7.41	7.67	7.90	8.26	7.75	7.80
Kansas*	9.14	9.07	9.25	9.25	8.70	9.08
Kentucky	7.84	7.80	7.98	8.00	7.22	7.77
Louisiana	7.81	7.32	7.16	7.47	6.78	7.31
Maine	11.11	11.06	10.81	10.88	10.43	10.86
Maryland	10.25	9.98	9.73	9.75	9.19	9.78
Massachusetts	13.86	14.86	14.69	14.30	14.84	14.51
Michigan	9.52	9.09	9.12	9.49	8.91	9.23
Minnesota	8.52	8.44	8.84	9.41	8.85	8.81
Mississippi	8.99	8.90	8.03	8.58	7.93	8.49
Missouri	7.82	8.03	8.39	8.39	7.95	8.12
Montana	7.88	8.20	8.10	8.12	7.22	7.90
Nebraska	8.20	8.22	8.35	8.44	8.18	8.28
Nevada	8.47	8.22	7.09	7.22	6.84	7.57
New Hampshire	13.32	14.04	13.58	13.75	13.76	13.69
New Jersey	12.40	11.90	11.40	11.42	11.01	11.63
New Mexico	8.72	8.66	8.16	8.51	7.72	8.35
New York	12.07	11.59	11.02	11.12	9.47	11.05
North Carolina	7.79	7.81	7.68	7.55	7.17	7.60
North Dakota	8.29	8.52	8.67	8.95	8.81	8.65
Ohio	8.53	8.81	8.75	8.62	8.03	8.55
Oklahoma	7.14	6.72	6.58	6.86	6.35	6.73
Oregon	7.57	7.63	7.74	7.77	7.31	7.61
Pennsylvania	8.75	8.61	8.28	8.07	7.65	8.27
Rhode Island	13.84	14.94	14.31	14.97	15.36	14.68
South Carolina	8.59	8.49	8.57	8.68	7.78	8.42
South Dakota	8.08	8.42	8.76	8.85	8.49	8.52
Tennessee	8.69	8.51	8.35	8.66	7.84	8.41
Texas	7.31	7.09	7.07	7.15	6.57	7.04
Utah	7.49	7.61	7.76	7.66	7.04	7.51
Vermont	12.72	12.77	12.78	12.74	12.19	12.64
Virginia	7.62	7.69	7.37	7.49	7.37	7.51
Washington	**6.42**	**6.62**	**6.80**	**6.92**	**6.33**	**6.62**
West Virginia	7.09	7.57	8.22	8.36	7.74	7.80
Wisconsin	9.39	9.52	9.43	9.72	9.08	9.43
Wyoming	7.92	8.14	8.39	8.58	8.03	8.21
U.S. Average	9.19	9.10	8.93	9.13	8.46	8.96
Washington's Rank	**1**	**1**	**2**	**2**	**1**	**1**

Source: U.S. Energy Information Administration (http://www.eia.gov/electricity/data/browser/), 2018

Table 2.7
Business Performance
State and Local Tax Collections Per $1,000 Personal Income
(Dollars)

(Fiscal Years)	2012	2013	2014	2015	2016	2012-16
Alabama	85.64	85.01	84.72	85.45	83.94	84.95
Alaska	233.72	176.65	133.78	64.24	67.79	152.10
Arizona	98.03	97.60	93.42	92.93	91.56	95.49
Arkansas	104.70	100.94	104.68	102.23	101.75	103.14
California	106.33	110.80	113.67	115.14	111.92	111.48
Colorado	96.03	96.02	95.36	93.77	90.42	95.30
Connecticut	108.92	111.24	112.99	111.29	105.76	111.11
Delaware	104.04	106.42	101.66	106.75	101.99	104.72
Florida	84.68	82.10	84.31	81.61	78.10	83.18
Georgia	89.81	90.80	92.16	90.96	90.21	90.93
Hawaii	126.08	130.07	129.06	131.72	132.68	129.23
Idaho	92.00	92.51	92.32	93.52	91.93	92.59
Illinois	122.71	122.41	122.96	117.43	111.19	121.38
Indiana	101.01	97.92	95.97	95.12	92.83	97.51
Iowa	108.30	104.89	103.27	107.88	107.06	106.09
Kansas	102.51	98.93	95.63	94.58	95.67	97.91
Kentucky	99.75	98.89	102.38	102.50	99.60	100.88
Louisiana	97.13	94.38	97.70	94.48	91.05	95.92
Maine	118.69	119.32	122.33	123.94	122.14	121.07
Maryland	102.20	102.79	106.81	108.84	107.68	105.16
Massachusetts	101.49	101.98	105.92	107.61	103.53	104.25
Michigan	98.10	96.93	96.65	98.22	94.92	97.47
Minnesota	117.81	121.45	119.28	121.55	120.00	120.02
Mississippi	102.69	104.09	105.39	107.25	103.80	104.85
Missouri	88.95	86.38	87.72	88.95	87.10	88.00
Montana	96.07	96.24	98.09	100.18	90.59	97.65
Nebraska	98.60	101.72	106.57	105.15	103.39	103.01
Nevada	102.55	102.18	103.86	102.73	101.10	102.83
New Hampshire	80.86	80.45	84.12	88.82	88.65	83.56
New Jersey	113.76	114.73	116.31	116.05	111.92	115.21
New Mexico	105.23	102.71	114.27	113.01	102.72	108.80
New York	153.06	150.32	155.29	155.61	153.70	153.57
North Carolina	97.87	94.11	96.80	96.81	95.86	96.40
North Dakota	154.24	161.57	178.91	161.66	119.26	164.10
Ohio	104.51	105.11	104.46	104.77	102.27	104.71
Oklahoma	91.10	85.35	84.25	82.53	78.92	85.81
Oregon	102.37	100.62	105.24	105.95	103.24	103.54
Pennsylvania	101.66	100.56	102.65	103.26	101.51	102.03
Rhode Island	112.98	111.07	112.08	113.44	111.98	112.39
South Carolina	90.52	90.66	93.19	93.83	89.75	92.05
South Dakota	78.71	78.82	83.25	84.10	82.97	81.22
Tennessee	80.95	80.60	80.58	82.12	79.51	81.06
Texas	93.35	91.45	95.04	91.56	87.33	92.85
Utah	101.19	100.91	98.93	97.87	96.00	99.73
Vermont	117.97	117.99	122.89	122.96	120.27	120.45
Virginia	86.31	86.01	87.35	89.57	87.88	87.31
Washington	**97.59**	**94.53**	**96.65**	**95.18**	**96.78**	**95.99**
West Virginia	111.97	111.66	114.34	114.42	106.46	113.10
Wisconsin	109.56	108.52	107.58	105.47	103.87	107.78
Wyoming	128.32	112.31	118.34	113.94	98.24	118.23
U.S. Average	104.99	104.58	106.41	105.80	102.87	104.93
Washington's Rank	**16**	**15**	**18**	**19**	**23**	**16**

Source: Washington State Department of Revenue, Comparative State and Local Taxes (www.dor.wa.gov), 2019

Table 2.8
Business Performance
Unemployment Insurance Costs
(Contributions collected as percent of total wages of covered employees)

	2013	2014	2015	2016	2017	2013-17
Alabama	0.67	0.54	0.48	0.39	0.28	0.47
Alaska	1.86	1.49	1.20	1.08	0.96	1.32
Arizona	0.47	0.46	0.45	0.45	0.43	0.45
Arkansas	1.01	0.95	0.89	0.70	0.56	0.82
California	0.85	0.78	0.73	0.69	0.63	0.74
Colorado	0.71	0.68	0.60	0.56	0.53	0.62
Connecticut	1.00	0.93	0.90	0.89	0.84	0.91
Delaware	0.78	0.77	0.70	0.64	0.52	0.68
Florida	0.78	0.63	0.42	0.29	0.21	0.47
Georgia	0.58	0.54	0.48	0.42	0.36	0.48
Hawaii	2.16	1.40	1.00	0.75	0.72	1.21
Idaho	1.59	0.96	0.72	0.69	0.72	0.94
Illinois	1.21	0.99	0.88	0.79	0.71	0.92
Indiana	0.77	0.72	0.64	0.55	0.49	0.63
Iowa	1.15	0.89	0.70	0.85	0.86	0.89
Kansas	0.81	0.73	0.85	0.49	0.45	0.67
Kentucky	0.90	0.88	0.86	0.86	0.73	0.85
Louisiana	0.36	0.32	0.31	0.30	0.29	0.32
Maine	1.04	0.87	0.84	0.69	0.58	0.80
Maryland	0.83	0.59	0.60	0.52	0.45	0.60
Massachusetts	1.10	1.02	0.73	0.71	0.70	0.85
Michigan	1.17	0.95	0.83	0.73	0.67	0.87
Minnesota	1.35	0.94	0.73	0.51	0.57	0.82
Mississippi	0.72	0.57	0.49	0.41	0.34	0.51
Missouri	0.71	0.67	0.61	0.57	0.42	0.60
Montana	1.19	1.10	0.91	0.66	0.62	0.90
Nebraska	0.46	0.38	0.32	0.30	0.23	0.34
Nevada	2.63	1.11	1.13	1.10	1.12	1.42
New Hampshire	0.69	0.47	0.26	0.20	0.19	0.36
New Jersey	1.57	1.46	1.34	1.26	1.03	1.33
New Mexico	0.87	0.82	1.30	1.34	0.62	0.99
New York	0.69	0.76	0.72	0.63	0.53	0.67
North Carolina	0.86	0.88	0.98	0.78	0.50	0.80
North Dakota	0.66	0.67	0.63	0.91	1.17	0.81
Ohio	0.65	0.62	0.58	0.54	0.62	0.60
Oklahoma	1.01	0.65	0.39	0.34	0.36	0.55
Oregon	1.78	1.62	1.46	1.32	1.32	1.50
Pennsylvania	1.49	1.33	1.30	1.33	1.23	1.34
Rhode Island	1.58	1.52	1.48	1.51	1.24	1.47
South Carolina	0.78	0.79	0.68	0.36	0.50	0.62
South Dakota	0.39	0.37	0.30	0.31	0.27	0.33
Tennessee	0.62	0.36	0.32	0.26	0.24	0.36
Texas	0.53	0.44	0.41	0.42	0.45	0.45
Utah	0.86	0.73	0.55	0.42	0.35	0.58
Vermont	1.60	1.54	1.51	1.46	1.42	1.51
Virginia	0.53	0.49	0.42	0.34	0.29	0.41
Washington	**1.08**	**1.04**	**0.97**	**0.80**	**0.70**	**0.92**
West Virginia	1.02	0.99	0.96	0.93	0.92	0.96
Wisconsin	1.32	1.19	1.07	0.85	0.66	1.02
Wyoming	1.42	1.15	0.73	0.65	0.67	0.92
U.S. Average	0.90	0.79	0.72	0.65	0.65	0.74
Washington's Rank	**33**	**39**	**39**	**36**	**34**	**37**

Source: U.S. Department of Labor, Employment, and Training Administration, 2019

Table 2.9
Business Performance
Workers' Compensation Premium Costs
(Dollar amount per $100 of payroll)

	2010	2012	2014	2016	2018	2010-2018
Alabama	2.45	1.97	1.81	1.85	1.65	1.95
Alaska	3.10	3.01	2.68	2.74	2.51	2.81
Arizona	1.71	1.61	1.60	1.50	1.30	1.54
Arkansas	1.18	1.19	1.08	1.06	0.90	1.08
California	2.68	2.92	3.48	3.24	2.87	3.04
Colorado	1.39	1.42	1.50	1.56	1.43	1.46
Connecticut	2.55	2.99	2.87	2.74	2.20	2.67
Delaware	1.85	1.77	2.31	2.32	2.50	2.15
Florida	1.70	1.82	1.82	1.66	1.81	1.76
Georgia	2.08	1.88	1.75	1.80	2.27	1.96
Hawaii	1.70	1.66	1.85	1.96	2.01	1.84
Idaho	1.98	2.02	2.01	1.79	1.81	1.92
Illinois	3.05	2.83	2.35	2.23	1.80	2.45
Indiana	1.16	1.16	1.06	1.05	0.87	1.06
Iowa	1.82	1.90	1.88	1.86	1.64	1.82
Kansas	1.55	1.54	1.55	1.41	1.15	1.44
Kentucky	2.29	1.96	1.51	1.52	1.51	1.76
Louisiana	2.06	2.06	2.23	2.11	2.05	2.10
Maine	2.52	2.24	2.15	2.02	1.84	2.15
Maryland	1.63	1.68	1.64	1.50	1.33	1.56
Massachusetts	1.54	1.37	1.17	1.29	1.37	1.35
Michigan	2.12	1.73	1.68	1.57	1.38	1.70
Minnesota	2.27	2.03	1.99	1.91	1.67	1.97
Mississippi	1.96	1.49	1.59	1.70	1.54	1.66
Missouri	1.90	1.62	1.98	1.92	1.68	1.82
Montana	3.33	2.50	2.21	2.10	2.01	2.43
Nebraska	1.97	1.71	1.78	1.67	1.70	1.77
Nevada	2.13	1.33	1.26	1.31	1.18	1.44
New Hampshire	2.45	2.40	2.18	1.96	1.70	2.14
New Jersey	2.53	2.74	2.82	2.92	2.84	2.77
New Mexico	1.91	1.88	1.99	1.92	1.50	1.84
New York	2.34	2.82	2.75	2.83	3.08	2.76
North Carolina	2.12	1.90	1.85	1.91	1.84	1.92
North Dakota	1.02	1.01	0.88	0.89	0.82	0.92
Ohio	2.24	1.84	1.74	1.45	1.40	1.73
Oklahoma	2.87	2.77	2.55	2.23	1.71	2.43
Oregon	1.69	1.58	1.37	1.28	1.15	1.41
Pennsylvania	2.32	2.15	2.00	1.84	1.85	2.03
Rhode Island	2.02	1.99	1.99	2.20	2.19	2.08
South Carolina	2.38	2.04	2.00	1.94	1.95	2.06
South Dakota	2.02	1.91	1.86	1.67	1.73	1.84
Tennessee	2.19	2.02	1.95	1.68	1.52	1.87
Texas	2.38	1.60	1.61	1.45	1.21	1.65
Utah	1.46	1.35	1.31	1.27	1.06	1.29
Vermont	2.22	2.07	2.33	2.02	2.09	2.15
Virginia	1.39	1.20	1.17	1.24	1.28	1.26
Washington	**2.04**	**2.11**	**2.00**	**1.97**	**1.87**	**2.00**
West Virginia	1.84	1.55	1.37	1.22	1.01	1.40
Wisconsin	2.21	2.15	1.92	2.06	2.02	2.07
Wyoming	1.79	1.74	1.76	1.87	1.87	1.81
50 State Average*	2.06	1.92	1.88	1.82	1.71	1.88
Washington's Rank	**25**	**38**	**34**	**36**	**35**	**33**

Source: Oregon Workers' Compensation Premium Rate Rankings, 2018
Research and Analysis Section of the Oregon Department of Consumer and Business Services.
*Unweighted average of state values

Chapter 3: Economic Growth and Competitiveness – Summary

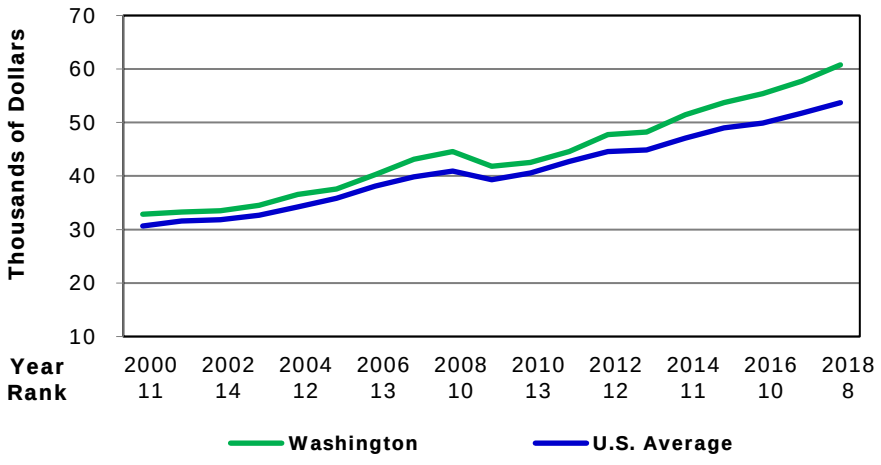
- **Washington's rank improved from 5th to 4th best in the nation in *Economic Growth and Competitiveness* this year.**
- **The state's rank improved in five indicators, worsened in three, and remained unchanged in two.**

Per Capita Personal Income

Washington is 8th in the nation for per capita personal income

Personal income, as defined by the Bureau of Economic Analysis, is the sum of earnings, dividends, interest, rent, and transfer payments. The per capita personal income indicator is calculated by dividing the total personal income of a state by its population. In 2018, per capita personal income in Washington was $60,781. This is over $7,000 more than the U.S. average of $53,712.

Figure 3.1: Per Capita Personal Income



Source: Bureau of Economic Analysis, U.S. Department of Commerce; data through 2018

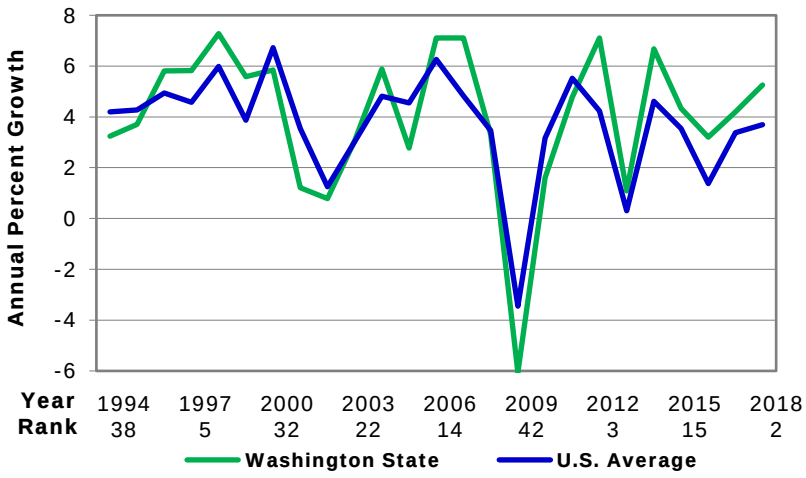
Despite the increase in income, Washington's ranking remained at 8th in the nation. Washington's five-year average is $55,820, which is also higher than the U.S. average of $50,274. Washington has been in the top 15 since the start of our collected data in 1969.

Most of Washington's personal income derives from earnings

Most of Washington's personal income derives from earnings, which consists mainly of wages and salaries but also includes proprietor's income and other labor income. In 2018, net earnings by place of residence for Washington residents totaled $291.0 billion, which accounted for 63.5 percent of total personal income. Income from transfer payments was $65.1 billion, and income from dividends, interest, and rent was $101.92 billion, representing 14.2 and 22.3 percent of total personal income, respectively.

Per Capita Personal Income Growth Rate

Figure 3.2: Per Capita Personal Income Growth Rate



Source: Bureau of Economic Analysis, U.S. Department of Commerce; data through 2018

WA per capita personal income grew by over 5 percent, the 2nd highest growth rate in the U.S.

The per capita personal income growth rate describes how quickly personal income is growing for a given population, and this growth rate is affected by the growth rate of the components of total personal income and the growth rate of the population. Washington's per capita personal income growth rate was 5.3 percent in 2018, up 1.1 percentage points from 2017. Washington's ranking also improved to 2nd in the nation. Washington's ranking has greatly improved over the years. In fact, the 2009 per capita income growth was -6.6 percent, making Washington 45th in the nation. Also, in 2001, Washington was ranked 50th. From 2014-2018, Washington's average ranking was 2nd in the nation.

Regional Price Parities – Relative Value of $100

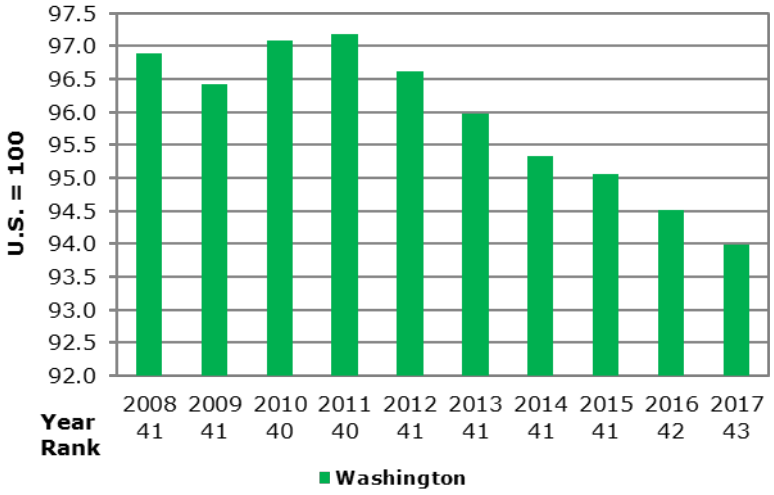
RPPs measure geographic differences in price levels

Regional Price Parities (RPPs), published by the Bureau of Economic Analysis, measure geographic differences in the price levels of goods and services. RPPs are weighted averages. To simplify comparisons, this indicator uses the United States as a base of 100. We then compare states in terms of relative value of $100. For example, if a state's value is 95, $100 only buys $95 worth of goods and services in that state compared to the nation. In other words, prices in that state are on average about five percent higher than the U.S. average (5.3 percent to be more exact). States with a lower relative RPP value have higher price levels.

Washington

In 2017, the relative value of $100 in Washington was $94.0. Washington's ranking in 2017 fell one spot to 43rd in the nation. Washington's five-year average is $95.0, ranking 42nd.

Figure 3.3: Washington Regional Price Parity



Source: Bureau of Economic Analysis, U.S. Department of Commerce, data through 2017

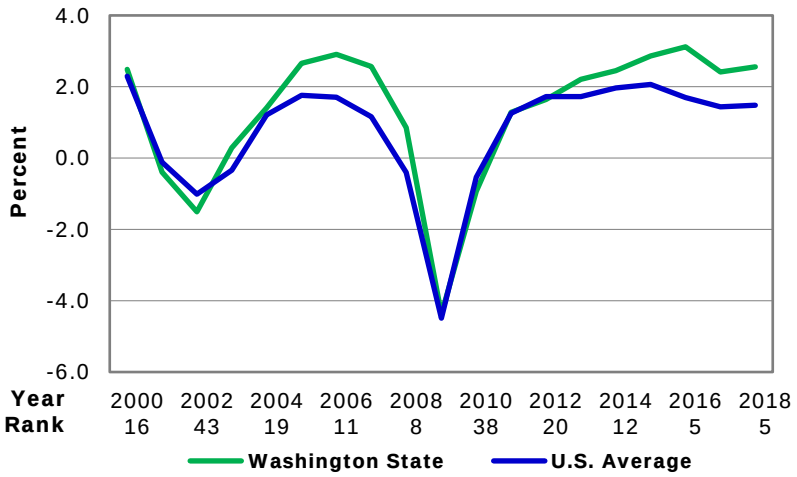
Total Employment Growth Rate

In 2018 Washington's ranking for employment growth rate remained at 5th in the nation

With the onset of the 2007-09 recession, employment dropped across the United States and the U.S. average annual employment growth rate fell to -0.4 percent in 2008. Despite the nation-wide recession, Washington still had positive employment growth for the year at 0.9 percent, ranking the state 8th in the nation. In 2009, as the recession continued, U.S. average annual employment growth fell to -4.5 percent, the lowest since the Great Depression. Washington suffered along with the nation as annual employment declined 4.3 percent. When the national labor market started to turn a corner, Washington lagged in job growth. In 2010, the state's employment decline was twice that of the national average pushing Washington's ranking to 12th

worst in the nation. Since 2010, Washington has rebounded, with an annual employment growth rate of 1.3 percent in 2011 and 1.6 percent in 2012. In 2013, Washington's job growth rate was 2.2 percent, causing Washington's rank to jump to 10th in the nation. Job growth increased to 2.5 percent in 2014 and the state's rank fell to 12th in the nation. The total employment growth rate continued to climb in 2015, reaching 2.9 percent and helping Washington rank 7th among states. In 2016, the total employment growth rate increased to 3.1 percent and the state's ranking improved to 5th – the best Washington has done since 2008. In 2017, employment growth fell to 2.4 percent, but Washington's ranking remained at 5th in the nation. 2018 saw an increase in employment growth rate of 0.2 from the previous year, but the ranking once again remained at 5th in the nation. From 2016-2018, Washington has had its best rankings since 1990. The U.S. average in 2018 was 1.5 percent. From 2014 to 2018, Washington's average employment growth rate was 2.7 percent, and the U.S. average was 1.7 percent.

Figure 3.4: Total Employment Growth Rate



Source: U.S. Bureau of Labor Statistics; data through 2018

Real Median Household Income

Median income measures avoid bias due to extremely high or low incomes

A state's median household income is the level of income (before taxes) at which exactly half of that state's households earn more than that amount and half earn less. While it is related to average or per capita household income, an increase in average household income does not necessarily mean that median household income will increase and vice versa. Unlike average income, median income measures are not biased by the income levels of the highest-income or lowest-income households. Typically, the average or per capita household income of a state is higher than the median.

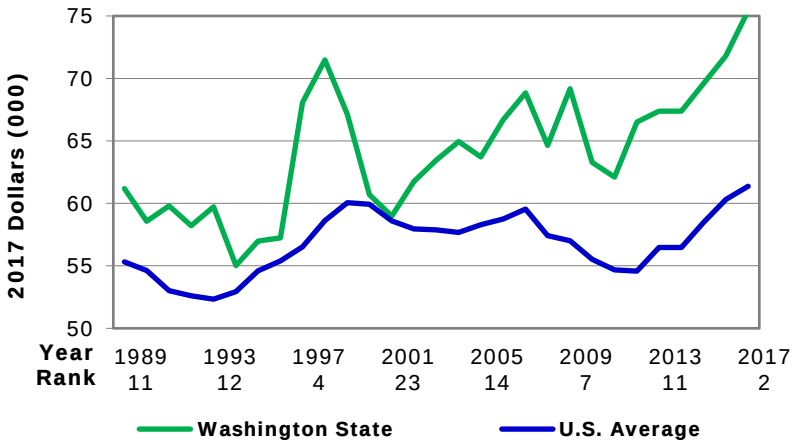
The standard error for Washington's 2017 median household income estimate is $3,307

Annual median household income estimates for states are produced by the U.S. Census Bureau. The data presented here are in 2017 dollars. These estimates are derived from the Annual Social and Economic Supplements to the annual Current Population Survey. As this survey's primary purpose is to arrive at national income and demographic numbers, estimates for individual states have substantial margins of error. The standard error for Washington's 2017 median household income estimate is plus or minus $3,307 compared to $335 for the United States.

The state's median income increased to $75,418 in 2017

Real median household income increased to $75,418 in 2017 from $71,822 from the year before. This increase improved Washington's ranking from 8th to 2nd. Washington has always been above the U.S. median. The U.S. median for 2017 is $61,205. The five-year median for Washington is $70,313, around $12,000 higher than the five-year U.S. median of $58,878. Washington's five-year ranking is 6th in the nation.

Figure 3.5: Real Median Household Income



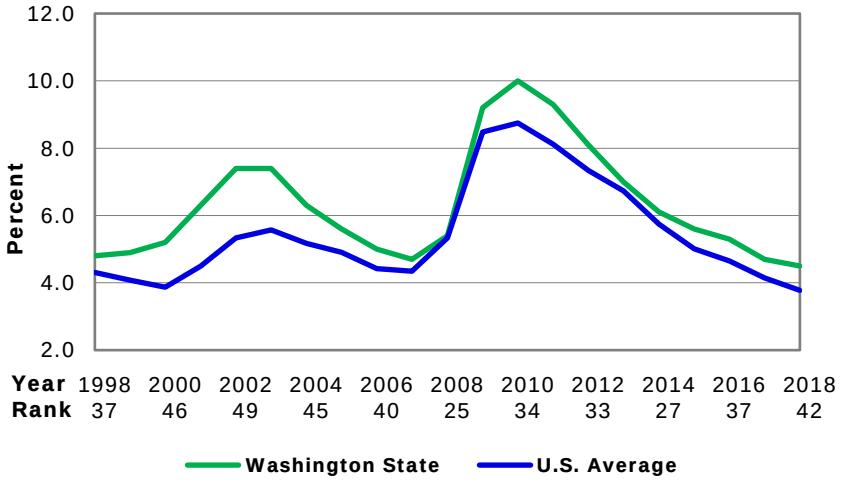
Source: U.S. Department of Commerce, Bureau of the Census; data through 2017

Unemployment Rate

Washington ranked 42nd in the nation for unemployment rate

Washington's unemployment rate has declined from 4.7 in 2017 to 4.5 in 2018. This is the lowest it has been since the recession. Washington's unemployment rate has always been above the U.S. average. The 2018 U.S. average was 3.8. Despite the improvement of Washington's unemployment rate, Washington's rank fell seven places to 42nd in the nation. Washington's five-year average unemployment rate is 5.2, 36th in the nation. The U.S. five-year average is 4.7.

Figure 3.6: Unemployment Rate



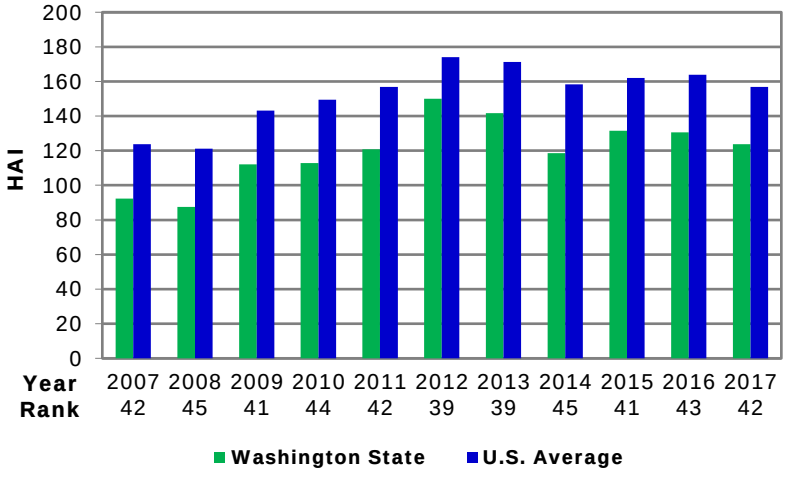
Source: U.S. Department of Labor, Bureau of Labor Statistics; data through 2018

Housing Affordability Index

The HAI measures housing affordability based on median income and home value

The Housing Affordability Index (HAI) is a measure of how affordable median priced homes are to families earning median incomes. For this indicator, HAI scores are calculated using annual, 1-year estimates for median household income and median home value from the U.S. Census Bureau's American Community Survey. HAI scores are also based on the annual percentage rates for mortgage loans given by Freddie Mac and assume a 20 percent down payment.

Figure 3.7: Housing Affordability Index



Source: U.S. Census Bureau, American Factfinder, data through 2017

The baseline HAI value is 100

At an HAI of 100, a family earning the median income has exactly enough income to qualify for a mortgage on a median-priced house. Higher index values – above 100 – indicate homes are more affordable; lower index values mean homes are less affordable. For example, an HAI value of 125 means that a median income household has 125 percent of the income necessary to qualify for a median priced house.

Washington's HAI in 2017 was 124, placing it 42nd in the nation.

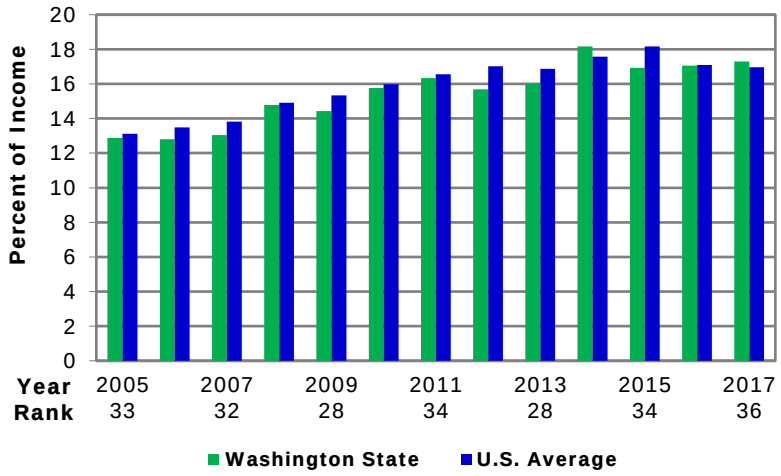
In 2017, Washington's HAI was 124. The U.S. average HAI was 157. Washington has historically been below the U.S. average HAI. Washington's HAI decreased by seven points from the year before, but Washington's ranking improved to 42nd in the nation from 43rd. Washington's five-year average HAI is 129, placing it at 44th in the nation.

Income Spent on Rent

Income spent on rent helps measure housing affordability

The U.S. Census Bureau's American Community Survey tracks both median contract rent and median household income. Median contract rent is the median amount of monthly rent that is agreed to or contracted for, not including utility payments, fees, meals, or other services. For vacant units, contract rent is the monthly price asked for the unit at the time of interview. Combining contract rent and income data into one indicator – income spent on rent – helps measure shelter costs as well as housing affordability. Renters are typically advised to spend no more than 30 percent of their incomes on rent.

Figure 3.8: Income Spent on Rent



Source: U.S. Census Bureau, American Factfinder, data through 2017

In 2017, Washington ranked 15th worst in the nation for income spent on rent

Washington's median rent as a percentage of median income was 17.3 percent in 2017. This is a 0.2 percentage point increase from the year before. Some of the more expensive states, or states with larger portions of incomes being spent on rent,

include: California, New York, Florida, Hawaii, and New Jersey. The five-year average for Washington is 17.1 percent, while the national five-year average is slightly higher at 17.3 percent. Washington ranked 34th in the nation over the period.

Total Average Wage and Average Wage by Occupation

The OES program produces estimates for over 800 occupations

The **Occupational Employment Statistics** (OES) program, produced by the U.S. Department of Labor's Bureau of Labor Statistics, conducts a yearly mail survey to gather estimates of employment and wages for specific occupations in states and metropolitan areas. The OES program collects data on wage and salary workers in nonfarm establishments in order to produce estimates for over 800 occupations. Because of the survey technique, data about self-employed workers are not collected and not represented in these estimates. Under the OES program, occupations are classified under the Standard Occupational Classification (SOC) system. This system includes twenty-three major occupational groups, which can be broken down into 840 individual occupations. Total average state wages are shown in Table 3.9 and state wages for major groups are presented in Table 3.10. Wages for the 840 specific occupations can be found at the BLS web site (www.bls.gov).

Washington ranks within the top ten in 17 categories and 4th overall.

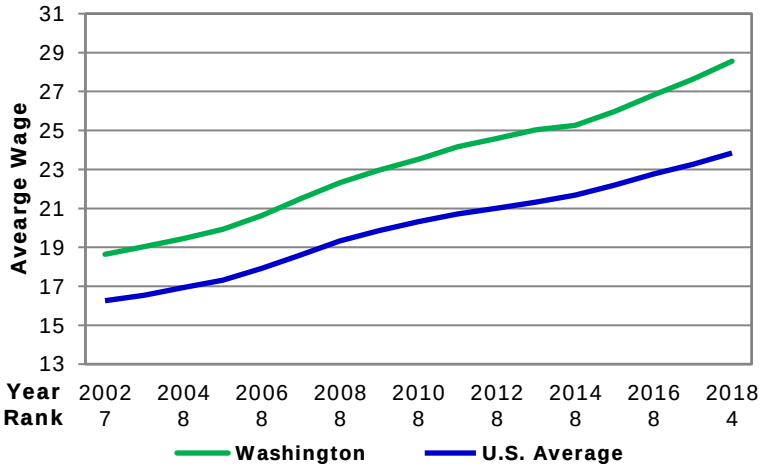
In 2018, Washington ranked in the top ten nationally in seventeen out of twenty-two categories. The state reaches a ranking of 1st in Computer and Mathematical occupations as well as Personal Care and Service Production. Washington also ranked 2nd in Food Preparation and Serving. On the other hand, Washington ranked lowest in the category of Farming, Fishing and Forestry, with a ranking of 22nd in the nation. Washington's total average hourly wages were $28.56 in 2018. This is an increase of $0.93 from 2017. Washington's ranking also improved to 4th in the nation, one up from last year. In fact, this is the best the ranking has ever been. For 16 years the ranking has consistently hovered around either 7th or 8th. Washington has also been consistently higher than the U.S. average. From 2014 to 2018, the average hourly wage was $26.85, ranking 8th.

Wages alone cannot be used to analyze costs since productivity must also be taken into account

While information on average state wage levels alone can be useful in some business decisions, care must be taken in using them to analyze actual business costs. This is because the OES survey does not attempt to account for differences in productivity or industry mix between the states. A higher-than-average wage level may simply indicate a larger concentration of high-productivity jobs within an occupational group, or higher productivity levels in the same occupation due to differences in average state levels of capital or training. For example, Washington's relatively high average wage in Healthcare Support may be due to a higher-than-average number of higher-paid workers in biotechnology labs rather than having higher paid doctors and nurses. Additionally, there are considerable

differences in wage levels between different parts of the state, with the highly populated areas affecting the average wage more than more sparsely populated areas that may have lower wages. The specific occupational and metropolitan area data available from the OES can present a clearer picture of the range of labor costs in the states.

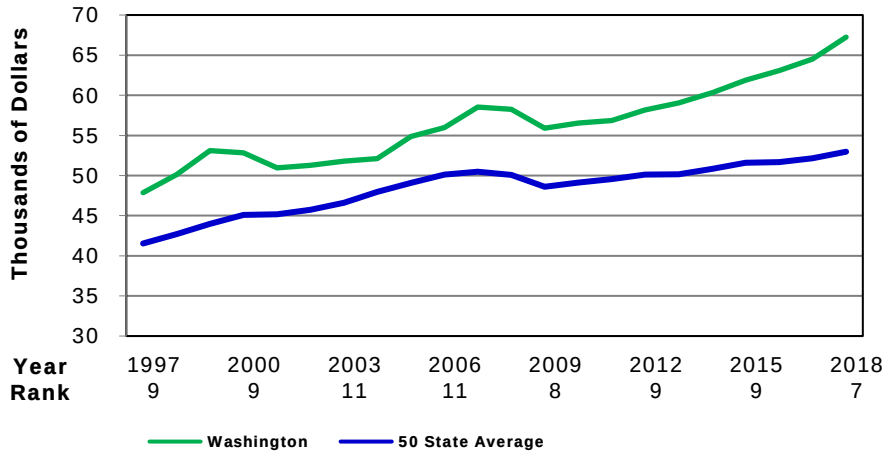
Figure 3.9: Total Average Wages



Source: U.S. Department of Commerce, Bureau of Labor Statistics, data through March 2018

Real Per Capita GDP

Figure 3.10: Real Per Capita GDP



Source: Bureau of Economic Analysis, data through 2018

Real per capita GDP has increased since 2012

The Bureau of Economic Analysis reports each state's real gross domestic product per capita annually. This is calculated by measuring the income and benefits of labor, total business taxes, and capital income, including depreciation. The total is chained with 2012 dollars and divided by the state population. This is the broadest indicator in the climate study and measures how much each state produces in goods and services per citizen, accounting for inflation.

Washington ranks 7th best in the nation in real per capita GDP

Washington's per capita GDP increased from $64,529 to $67,242 in 2018 while the state's rank improved to 7th in the nation. The 50-state average was $45,184 in 2017. The five-year average for Washington State is $63,409. Washington's rank in that same period is 9th.

Table 3.1
Economic Growth and Competitiveness
Per Capita Personal Income
(Dollars)

	2014	2015	2016	2017	2018	2014-18
Alabama	37,217	38,594	39,260	40,802	42,334	39,641
Alaska	55,595	57,340	55,915	57,180	59,687	57,143
Arizona	38,175	39,629	40,456	42,085	43,650	40,799
Arkansas	37,948	39,030	39,717	41,063	42,566	40,065
California	52,340	55,793	57,625	60,004	62,586	57,670
Colorado	50,662	52,116	52,269	54,561	56,846	53,291
Connecticut	66,724	68,575	69,722	72,110	74,561	70,338
Delaware	45,841	47,813	48,374	49,925	51,449	48,680
Florida	43,227	45,452	46,208	47,701	49,417	46,401
Georgia	39,615	41,532	42,657	44,214	45,745	42,753
Hawaii	47,283	49,437	50,872	52,910	54,565	51,013
Idaho	37,767	39,727	40,438	41,778	43,155	40,573
Illinois	49,504	51,639	52,509	54,271	56,933	52,971
Indiana	40,887	42,326	43,593	45,196	46,646	43,730
Iowa	44,749	46,191	46,350	47,093	48,823	46,641
Kansas	46,680	47,169	47,438	48,600	50,155	48,008
Kentucky	37,461	38,943	39,433	40,600	41,779	39,643
Louisiana	42,566	42,890	42,654	43,786	45,542	43,488
Maine	41,831	43,642	44,749	46,485	48,241	44,990
Maryland	54,542	57,009	58,934	61,123	62,914	58,904
Massachusetts	59,892	63,505	65,164	67,596	70,073	65,246
Michigan	41,050	43,408	44,668	46,136	47,582	44,569
Minnesota	49,948	51,936	52,750	54,442	56,374	53,090
Mississippi	34,610	35,097	35,778	36,567	37,994	36,009
Missouri	41,550	42,845	43,615	45,014	46,635	43,932
Montana	41,811	43,537	43,951	45,274	47,120	44,339
Nebraska	48,866	50,465	49,703	50,875	52,110	50,404
Nevada	41,654	44,247	44,783	46,557	48,225	45,093
New Hampshire	52,884	54,950	56,800	59,360	61,405	57,080
New Jersey	58,625	61,144	62,629	65,387	67,609	63,079
New Mexico	37,194	38,251	38,793	39,709	41,198	39,029
New York	57,279	59,645	61,520	65,392	68,667	62,501
North Carolina	40,005	41,850	42,707	44,233	45,834	42,926
North Dakota	56,101	53,619	52,716	52,284	54,306	53,805
Ohio	42,792	44,406	45,127	46,710	48,242	45,455
Oklahoma	45,477	44,154	42,047	44,356	46,128	44,432
Oregon	42,375	45,065	46,352	48,093	49,908	46,359
Pennsylvania	48,314	50,261	51,407	53,363	55,349	51,739
Rhode Island	48,203	50,187	50,830	52,943	54,523	51,337
South Carolina	37,545	39,425	40,325	41,659	42,736	40,338
South Dakota	46,901	48,658	48,429	48,616	50,141	48,549
Tennessee	40,972	42,810	43,961	45,566	47,179	44,098
Texas	46,367	46,654	46,092	47,332	49,161	47,121
Utah	38,548	40,864	42,203	43,441	45,340	42,079
Vermont	47,676	49,369	50,625	52,152	53,598	50,684
Virginia	50,557	52,712	53,345	55,137	56,952	53,741
Washington	**51,465**	**53,696**	**55,415**	**57,743**	**60,781**	**55,820**
West Virginia	36,053	36,774	36,912	38,454	40,578	37,754
Wisconsin	44,780	46,558	47,426	48,970	50,756	47,698
Wyoming	56,682	57,225	55,511	57,384	60,095	57,379
U.S. Average*	47,060	48,985	49,883	51,731	53,712	50,274
Washington's Rank	**11**	**10**	**10**	**8**	**8**	**10**

Source: Bureau of Economic Analysis, 2018

Table 3.2
Economic Growth and Competitiveness
Per Capita Personal Income Growth Rate
(Percent)

	2014	2015	2016	2017	2018	2014-18
Alabama	3.2	3.7	1.7	3.9	3.8	3.3
Alaska	6.4	3.1	-2.5	2.3	4.4	2.7
Arizona	4.4	3.8	2.1	4.0	3.7	3.6
Arkansas	5.5	2.9	1.8	3.4	3.7	3.4
California	6.3	6.6	3.3	4.1	4.3	4.9
Colorado	7.3	2.9	0.3	4.4	4.2	3.8
Connecticut	4.6	2.8	1.7	3.4	3.4	3.2
Delaware	3.5	4.3	1.2	3.2	3.1	3.1
Florida	6.4	5.1	1.7	3.2	3.6	4.0
Georgia	5.8	4.8	2.7	3.7	3.5	4.1
Hawaii	5.1	4.6	2.9	4.0	3.1	3.9
Idaho	4.5	5.2	1.8	3.3	3.3	3.6
Illinois	5.0	4.3	1.7	3.4	4.9	3.9
Indiana	3.5	3.5	3.0	3.7	3.2	3.4
Iowa	3.0	3.2	0.3	1.6	3.7	2.4
Kansas	1.9	1.0	0.6	2.4	3.2	1.8
Kentucky	4.5	4.0	1.3	3.0	2.9	3.1
Louisiana	4.5	0.8	-0.6	2.7	4.0	2.3
Maine	4.2	4.3	2.5	3.9	3.8	3.7
Maryland	3.2	4.5	3.4	3.7	2.9	3.5
Massachusetts	4.4	6.0	2.6	3.7	3.7	4.1
Michigan	4.5	5.7	2.9	3.3	3.1	3.9
Minnesota	4.7	4.0	1.6	3.2	3.5	3.4
Mississippi	2.3	1.4	1.9	2.2	3.9	2.3
Missouri	3.5	3.1	1.8	3.2	3.6	3.0
Montana	4.2	4.1	1.0	3.0	4.1	3.3
Nebraska	5.2	3.3	-1.5	2.4	2.4	2.3
Nevada	5.3	6.2	1.2	4.0	3.6	4.0
New Hampshire	3.0	3.9	3.4	4.5	3.4	3.6
New Jersey	4.6	4.3	2.4	4.4	3.4	3.8
New Mexico	6.0	2.8	1.4	2.4	3.7	3.3
New York	4.0	4.1	3.1	6.3	5.0	4.5
North Carolina	5.0	4.6	2.0	3.6	3.6	3.8
North Dakota	4.2	-4.4	-1.7	-0.8	3.9	0.2
Ohio	4.0	3.8	1.6	3.5	3.3	3.2
Oklahoma	5.6	-2.9	-4.8	5.5	4.0	1.5
Oregon	6.1	6.3	2.9	3.8	3.8	4.6
Pennsylvania	4.2	4.0	2.3	3.8	3.7	3.6
Rhode Island	4.3	4.1	1.3	4.2	3.0	3.4
South Carolina	5.2	5.0	2.3	3.3	2.6	3.7
South Dakota	4.0	3.7	-0.5	0.4	3.1	2.2
Tennessee	3.6	4.5	2.7	3.7	3.5	3.6
Texas	5.8	0.6	-1.2	2.7	3.9	2.4
Utah	4.8	6.0	3.3	2.9	4.4	4.3
Vermont	4.1	3.6	2.5	3.0	2.8	3.2
Virginia	3.8	4.3	1.2	3.4	3.3	3.2
Washington	**6.7**	**4.3**	**3.2**	**4.2**	**5.3**	**4.7**
West Virginia	3.2	2.0	0.4	4.2	5.5	3.0
Wisconsin	4.0	4.0	1.9	3.3	3.6	3.3
Wyoming	6.7	1.0	-3.0	3.4	4.7	2.6
U.S. Average*	4.6	3.5	1.4	3.4	3.7	3.3
Washington's Rank	**3**	**15**	**5**	**6**	**2**	**2**

Source: Bureau of Economic Analysis, U.S. Department of Commerce, 2018

Table 3.3
Economic Growth and Competitiveness
Regional Price Parities
Relative Value of $100

	2013	2014	2015	2016	2017	2013-17
Alabama	113.9	114.8	115.2	115.3	115.3	114.9
Alaska	95.3	94.1	94.8	95.1	95.8	95.0
Arizona	103.6	104.2	104.1	104.1	103.7	103.9
Arkansas	113.9	115.1	114.4	114.9	115.6	114.8
California	88.4	88.0	87.9	87.3	87.1	87.7
Colorado	97.9	98.0	97.8	97.4	96.9	97.6
Connecticut	92.2	92.1	92.2	92.3	92.6	92.3
Delaware	99.4	98.9	100.0	99.9	99.9	99.6
Florida	100.8	100.6	100.5	100.2	100.1	100.4
Georgia	108.3	108.7	107.8	108.2	108.1	108.2
Hawaii	84.5	84.5	83.9	84.4	84.4	84.3
Idaho	107.3	106.8	107.2	107.6	107.5	107.3
Illinois	100.3	100.7	101.0	101.3	101.5	101.0
Indiana	109.5	110.1	111.0	111.4	111.4	110.7
Iowa	110.4	110.7	111.2	111.4	111.4	111.0
Kansas	109.5	110.0	110.9	111.0	111.1	110.5
Kentucky	112.0	113.3	112.7	113.8	113.8	113.1
Louisiana	109.6	110.0	110.5	110.6	111.0	110.4
Maine	101.5	102.0	100.9	101.2	101.6	101.5
Maryland	91.0	90.7	91.2	91.4	91.4	91.2
Massachusetts	93.7	93.2	92.9	92.5	92.7	93.0
Michigan	106.0	106.8	107.5	107.5	107.5	107.1
Minnesota	102.6	102.6	102.9	102.8	102.6	102.7
Mississippi	114.7	116.0	116.0	115.6	116.7	115.8
Missouri	111.2	111.4	111.6	111.7	111.7	111.5
Montana	105.7	105.6	105.2	106.3	105.7	105.7
Nebraska	110.3	110.5	110.9	111.1	111.6	110.9
Nevada	101.3	102.6	102.8	103.0	102.5	102.4
New Hampshire	94.9	94.6	94.6	94.3	94.5	94.6
New Jersey	88.2	87.9	88.2	88.3	88.6	88.2
New Mexico	104.9	105.6	106.6	107.2	107.2	106.3
New York	86.8	86.4	86.4	86.1	86.4	86.4
North Carolina	108.9	109.4	109.6	109.9	109.5	109.5
North Dakota	109.1	109.2	108.7	109.8	111.0	109.5
Ohio	111.7	111.9	112.1	112.2	112.5	112.1
Oklahoma	111.1	111.7	111.4	112.2	112.4	111.8
Oregon	101.1	101.2	101.5	100.6	100.5	101.0
Pennsylvania	101.4	101.9	101.8	101.5	102.1	101.8
Rhode Island	101.2	100.2	100.1	100.0	101.4	100.6
South Carolina	110.5	111.1	110.7	110.6	110.6	110.7
South Dakota	113.6	113.6	113.6	113.6	113.4	113.6
Tennessee	110.3	111.4	111.2	110.7	110.6	110.8
Texas	103.8	103.6	103.4	103.3	103.1	103.5
Utah	102.4	103.3	103.7	103.0	103.1	103.1
Vermont	99.1	97.6	97.4	98.0	97.6	97.9
Virginia	97.3	97.4	97.5	97.8	97.9	97.6
Washington	**96.0**	**95.3**	**95.1**	**94.5**	**94.0**	**95.0**
West Virginia	112.9	113.4	112.7	114.2	114.9	113.6
Wisconsin	107.3	107.2	107.5	108.1	108.2	107.7
Wyoming	104.2	103.3	103.7	103.4	105.0	103.9
U.S. Average*	97.2	97.3	97.2	97.1	97.0	97.2
Washington Rank	**41**	**41**	**41**	**42**	**43**	**42**

Source U.S. Department of Commerce, Bureau of Economic Analysis (www.bea.gov), 2018
*U.S. set to 100 by default

Table 3.4
Economic Growth and Competitiveness
Total Employment Growth Rate
(Percent)

	2014	2015	2016	2017	2018	2014-18
Alabama	1.0	1.4	1.3	1.1	1.2	1.2
Alaska	0.5	0.3	-1.7	-1.3	-0.6	-0.5
Arizona	2.0	2.6	2.7	2.5	2.8	2.5
Arkansas	1.1	1.9	1.6	1.3	1.1	1.4
California	2.8	3.1	2.7	2.2	2.0	2.5
Colorado	3.5	3.1	2.4	2.3	2.4	2.7
Connecticut	0.7	0.8	0.3	0.2	0.1	0.4
Delaware	2.2	2.3	1.0	0.8	1.0	1.5
Florida	3.2	3.6	3.4	2.2	2.4	3.0
Georgia	2.8	2.8	2.6	1.9	1.9	2.4
Hawaii	1.4	1.7	1.3	1.1	0.5	1.2
Idaho	2.6	2.7	3.4	3.0	3.1	3.0
Illinois	1.3	1.5	0.9	0.7	0.9	1.1
Indiana	1.4	1.9	1.4	1.2	1.0	1.4
Iowa	1.2	0.9	0.6	0.1	0.7	0.7
Kansas	1.4	0.7	0.3	0.0	0.9	0.6
Kentucky	1.5	1.5	1.2	0.6	0.5	1.1
Louisiana	1.6	0.5	-1.1	-0.1	0.5	0.3
Maine	0.6	0.9	1.2	0.9	0.7	0.9
Maryland	0.8	1.5	1.2	1.1	0.7	1.1
Massachusetts	2.0	1.9	1.9	1.3	0.9	1.6
Michigan	1.8	1.5	1.8	1.1	1.1	1.5
Minnesota	1.4	1.6	1.3	1.3	0.8	1.3
Mississippi	0.9	1.2	1.1	0.5	0.3	0.8
Missouri	1.0	2.1	1.5	0.9	0.5	1.2
Montana	1.0	1.9	1.3	1.0	1.1	1.3
Nebraska	1.3	1.4	0.9	0.4	0.4	0.9
Nevada	3.6	3.5	3.2	3.3	3.4	3.4
New Hampshire	1.1	1.6	1.9	1.1	0.8	1.3
New Jersey	0.8	1.1	1.5	1.4	0.9	1.2
New Mexico	1.0	0.8	0.1	0.5	1.3	0.7
New York	1.9	1.8	1.5	1.3	1.1	1.5
North Carolina	2.1	2.4	2.3	1.7	1.7	2.0
North Dakota	3.8	-1.7	-4.2	-0.8	0.6	-0.5
Ohio	1.5	1.5	1.1	0.8	0.6	1.1
Oklahoma	1.3	0.7	-0.9	0.5	1.5	0.6
Oregon	2.9	3.4	3.0	2.3	1.8	2.7
Pennsylvania	0.8	0.8	0.8	1.0	1.1	0.9
Rhode Island	1.5	1.4	0.9	0.8	0.5	1.0
South Carolina	2.6	2.8	2.4	1.9	2.4	2.4
South Dakota	1.5	1.1	0.9	0.4	1.1	1.0
Tennessee	2.3	2.5	2.5	1.6	1.6	2.1
Texas	3.1	2.3	1.2	1.8	2.3	2.2
Utah	2.9	3.8	3.5	3.0	3.2	3.3
Vermont	1.0	0.8	0.3	0.6	0.2	0.6
Virginia	0.6	2.0	1.4	1.1	1.1	1.2
Washington	**2.5**	**2.9**	**3.1**	**2.4**	**2.6**	**2.7**
West Virginia	-0.4	-0.4	-1.3	-0.2	1.5	-0.2
Wisconsin	1.5	1.4	1.2	0.7	0.8	1.1
Wyoming	1.5	-0.5	-3.7	-0.8	0.7	-0.6
U.S. Average	2.0	2.1	1.7	1.4	1.5	1.7
Washington's Rank	**12**	**7**	**5**	**5**	**5**	**6**

Source: U.S. Bureau of Labor Statistics (www.bls.gov), 2018

Table 3.5
Economic Growth and Competitiveness
Real Median Household Income
(2016 dollars)

	2013	2014	2015	2016	2017	2013-17
Alabama	49,876	49,876	46,053	48,237	51,113	49,031
Alaska	76,387	76,387	77,717	77,351	72,231	76,015
Arizona	55,453	55,453	54,060	58,328	61,125	56,884
Arkansas	41,503	41,503	44,282	46,894	48,829	44,602
California	64,078	64,078	65,843	68,070	69,759	66,366
Colorado	71,580	71,580	68,906	72,084	74,172	71,664
Connecticut	73,034	73,034	75,417	77,556	72,780	74,364
Delaware	57,013	57,013	59,759	59,294	62,318	59,079
Florida	51,153	51,153	50,518	52,277	53,681	51,756
Georgia	49,530	49,530	52,529	54,678	57,016	52,657
Hawaii	67,705	67,705	66,751	73,684	73,575	69,884
Idaho	51,085	51,085	53,414	57,780	60,208	54,714
Illinois	56,850	56,850	62,508	62,706	64,609	60,705
Indiana	52,126	52,126	53,786	57,300	58,873	54,842
Iowa	63,405	63,405	62,965	60,365	63,481	62,724
Kansas	50,403	50,403	56,768	58,032	57,872	54,696
Kentucky	47,303	47,303	43,857	46,345	51,348	47,231
Louisiana	48,933	48,933	47,515	43,103	43,903	46,477
Maine	57,925	57,925	52,516	51,950	51,664	54,396
Maryland	73,099	73,099	76,146	75,346	81,084	75,755
Massachusetts	65,906	65,906	70,214	73,820	73,227	69,815
Michigan	59,622	59,622	56,083	58,319	57,700	58,269
Minnesota	67,798	67,798	71,114	71,728	71,920	70,072
Mississippi	34,085	34,085	41,426	41,983	43,441	39,004
Missouri	48,804	48,804	61,249	56,199	56,885	54,388
Montana	45,534	45,534	53,177	58,302	59,087	52,327
Nebraska	60,735	60,735	62,571	60,651	59,619	60,862
Nevada	54,646	54,646	53,812	56,623	56,550	55,255
New Hampshire	72,831	72,831	78,299	77,900	74,801	75,332
New Jersey	67,198	67,198	70,728	69,940	72,997	69,612
New Mexico	42,336	42,336	46,684	49,493	47,855	45,741
New York	52,665	52,665	60,017	62,758	62,447	58,110
North Carolina	48,840	48,840	52,559	54,920	50,343	51,100
North Dakota	62,347	62,347	59,406	61,478	59,886	61,093
Ohio	53,489	53,489	55,150	55,146	59,768	55,408
Oklahoma	48,655	48,655	48,710	52,039	55,006	50,613
Oregon	51,646	51,646	62,944	60,407	64,610	58,251
Pennsylvania	58,135	58,135	62,483	62,290	63,173	60,843
Rhode Island	59,365	59,365	57,633	62,851	66,390	61,121
South Carolina	45,916	45,916	47,968	55,505	54,971	50,055
South Dakota	56,298	56,298	56,975	58,685	56,894	57,030
Tennessee	45,703	45,703	48,971	52,448	55,240	49,613
Texas	54,183	54,183	58,432	59,396	59,295	57,098
Utah	64,344	64,344	68,556	68,932	71,319	67,499
Vermont	69,052	69,052	61,557	62,145	63,805	65,122
Virginia	69,467	69,467	63,618	67,880	71,293	68,345
Washington	**67,375**	**67,375**	**69,575**	**71,822**	**75,418**	**70,313**
West Virginia	45,395	45,395	44,309	45,308	45,392	45,160
Wisconsin	54,520	54,520	57,347	61,103	63,451	58,188
Wyoming	71,084	71,084	63,038	59,073	57,837	64,423
U.S. Median*	57,128	57,128	58,718	60,210	61,205	58,878
Washington's Rank	**11**	**11**	**8**	**8**	**2**	**6**

Source: U.S. Department of Commerce, Bureau of the Census, 2019

Table 3.6
Economic Growth and Competitiveness
Unemployment Rate

	2014	2015	2016	2017	2018	2014-18
Alabama	6.8	6.1	5.8	4.4	3.9	5.4
Alaska	6.9	6.5	6.9	7.0	6.6	6.8
Arizona	6.8	6.1	5.4	4.9	4.8	5.6
Arkansas	6.0	5.0	4.0	3.7	3.7	4.5
California	7.5	6.2	5.5	4.8	4.2	5.6
Colorado	5.0	3.9	3.2	2.7	3.3	3.6
Connecticut	6.6	5.7	5.1	4.7	4.1	5.2
Delaware	5.7	4.9	4.5	4.5	3.8	4.7
Florida	6.3	5.5	4.8	4.2	3.6	4.9
Georgia	7.1	6.0	5.4	4.7	3.9	5.4
Hawaii	4.4	3.6	3.0	2.4	2.4	3.2
Idaho	4.8	4.2	3.8	3.2	2.8	3.8
Illinois	7.1	6.0	5.8	4.9	4.3	5.6
Indiana	6.0	4.8	4.4	3.6	3.4	4.4
Iowa	4.2	3.8	3.6	3.1	2.5	3.4
Kansas	4.5	4.2	4.0	3.7	3.4	4.0
Kentucky	6.5	5.3	5.1	4.9	4.3	5.2
Louisiana	6.4	6.3	6.1	5.1	4.9	5.8
Maine	5.6	4.4	3.8	3.4	3.4	4.1
Maryland	5.8	5.1	4.5	4.3	3.9	4.7
Massachusetts	5.7	4.8	3.9	3.8	3.3	4.3
Michigan	7.2	5.4	5.0	4.6	4.1	5.3
Minnesota	4.2	3.7	3.9	3.4	2.9	3.6
Mississippi	7.5	6.4	5.8	5.1	4.8	5.9
Missouri	6.1	5.0	4.6	3.8	3.2	4.5
Montana	4.7	4.2	4.1	3.9	3.7	4.1
Nebraska	3.3	3.0	3.1	2.9	2.8	3.0
Nevada	7.9	6.8	5.7	5.1	4.6	6.0
New Hampshire	4.3	3.4	2.9	2.7	2.5	3.2
New Jersey	6.8	5.8	5.0	4.6	4.1	5.3
New Mexico	6.7	6.5	6.6	5.9	4.9	6.1
New York	6.3	5.3	4.9	4.7	4.1	5.1
North Carolina	6.3	5.7	5.1	4.5	3.9	5.1
North Dakota	2.7	2.8	3.1	2.7	2.6	2.8
Ohio	5.8	4.9	5.0	5.0	4.6	5.1
Oklahoma	4.5	4.4	4.8	4.2	3.4	4.3
Oregon	6.8	5.6	4.8	4.1	4.2	5.1
Pennsylvania	5.9	5.3	5.4	4.9	4.3	5.2
Rhode Island	7.7	6.0	5.2	4.4	4.1	5.5
South Carolina	6.5	6.0	5.0	4.3	3.4	5.0
South Dakota	3.4	3.1	3.0	3.2	3.0	3.1
Tennessee	6.6	5.6	4.7	3.8	3.5	4.8
Texas	5.1	4.4	4.6	4.3	3.9	4.5
Utah	3.8	3.6	3.4	3.3	3.1	3.4
Vermont	3.9	3.6	3.2	3.0	2.7	3.3
Virginia	5.2	4.5	4.1	3.7	3.0	4.1
Washington	**6.1**	**5.6**	**5.3**	**4.7**	**4.5**	**5.2**
West Virginia	6.6	6.7	6.1	5.2	5.3	6.0
Wisconsin	5.4	4.6	4.0	3.3	3.0	4.1
Wyoming	4.1	4.3	5.3	4.2	4.1	4.4
U.S. Average *	5.7	5.0	4.6	4.2	3.8	4.7
Washington's Rank	**27**	**32**	**37**	**35**	**42**	**36**

Source: U.S. Department of Labor, Bureau of Labor Statistics, 2018

Table 3.7
Economic Growth and Competitiveness
Housing Affordability Index
(Baseline: 100)

	2013	2014	2015	2016	2017	2013-17
Alabama	214	180	184	197	201	195
Alaska	159	142	161	161	147	154
Arizona	176	149	149	158	152	157
Arkansas	200	213	197	212	211	207
California	91	78	79	79	76	81
Colorado	157	128	130	128	118	132
Connecticut	144	140	149	157	148	148
Delaware	133	133	134	136	137	135
Florida	176	152	151	147	140	153
Georgia	184	179	177	183	183	181
Hawaii	71	72	63	69	66	68
Idaho	169	173	163	170	162	167
Illinois	177	171	186	187	184	181
Indiana	225	207	220	237	232	224
Iowa	263	232	248	236	237	243
Kansas	205	216	216	223	214	215
Kentucky	206	185	181	190	203	193
Louisiana	184	158	164	152	150	162
Maine	177	158	156	157	150	160
Maryland	138	141	136	137	144	139
Massachusetts	106	100	107	112	106	106
Michigan	268	221	219	221	206	227
Minnesota	198	191	191	189	179	190
Mississippi	184	183	197	205	201	194
Missouri	193	219	222	207	202	209
Montana	126	139	136	150	142	139
Nebraska	241	227	237	228	213	229
Nevada	174	139	130	132	122	139
New Hampshire	165	166	172	173	158	167
New Jersey	115	111	118	119	121	117
New Mexico	140	158	153	165	155	154
New York	100	104	110	116	110	108
North Carolina	167	161	176	185	164	171
North Dakota	212	201	176	186	171	189
Ohio	222	206	217	219	231	219
Oklahoma	220	211	206	219	223	216
Oregon	119	131	128	117	113	122
Pennsylvania	187	178	197	199	194	191
Rhode Island	135	133	128	141	143	136
South Carolina	174	172	173	201	189	182
South Dakota	214	199	200	204	189	201
Tennessee	172	163	175	185	183	176
Texas	216	206	206	205	192	205
Utah	160	152	157	153	144	153
Vermont	167	151	148	155	157	155
Virginia	153	143	132	143	145	143
Washington	**142**	**119**	**132**	**131**	**124**	**129**
West Virginia	232	203	212	214	211	214
Wisconsin	176	188	183	197	197	188
Wyoming	192	148	159	157	150	161
United States	171	158	162	164	157	162
Washington's Rank	**39**	**45**	**41**	**43**	**42**	**44**

Source: U.S. Census Bureau, American FactFinder, 2018

Table 3.8
Economic Growth and Competitiveness
Monthly Income Spent on Rent
(Percent)*

	2013	2014	2015	2016	2017	2013-17
Alabama	12.8	14.8	14.5	14.2	13.3	13.9
Alaska	16.4	19.0	17.0	17.4	18.0	17.6
Arizona	16.7	18.7	18.2	17.3	16.8	17.5
Arkansas	14.7	13.5	14.6	14.0	13.5	14.0
California	21.8	23.0	22.6	22.5	22.7	22.5
Colorado	14.9	17.7	17.8	18.0	18.2	17.3
Connecticut	15.0	15.4	15.3	15.0	15.9	15.3
Delaware	18.4	18.0	18.2	18.5	18.0	18.2
Florida	20.4	22.3	21.9	21.8	21.8	21.6
Georgia	17.0	16.8	17.0	16.9	16.5	16.8
Hawaii	22.9	21.4	25.3	22.6	23.4	23.1
Idaho	14.9	14.3	15.3	14.3	13.9	14.5
Illinois	16.9	17.1	16.1	16.3	15.8	16.4
Indiana	14.0	14.8	13.9	13.2	12.9	13.8
Iowa	10.9	11.8	11.7	12.4	11.9	11.7
Kansas	14.0	13.3	13.1	13.0	13.2	13.3
Kentucky	13.8	14.7	15.4	14.7	13.3	14.4
Louisiana	15.8	18.1	16.9	18.7	18.5	17.6
Maine	14.4	15.7	16.5	16.8	16.7	16.0
Maryland	18.2	17.2	18.5	18.9	17.7	18.1
Massachusetts	18.1	18.5	17.9	17.5	17.8	18.0
Michigan	13.1	14.8	14.6	14.2	14.4	14.2
Minnesota	13.8	13.7	14.1	14.2	14.3	14.0
Mississippi	19.3	17.7	16.0	16.4	15.9	17.1
Missouri	14.4	12.1	11.9	13.2	13.2	13.0
Montana	16.4	14.6	15.7	13.8	13.5	14.8
Nebraska	11.8	12.6	12.1	12.8	13.2	12.5
Nevada	18.6	19.6	19.3	18.7	19.2	19.1
New Hampshire	15.1	14.5	14.2	14.4	15.3	14.7
New Jersey	19.2	19.7	19.0	19.7	18.9	19.3
New Mexico	19.1	16.8	17.6	16.9	17.5	17.6
New York	23.4	22.8	21.9	21.2	21.4	22.1
North Carolina	15.8	16.2	15.3	15.0	16.6	15.8
North Dakota	12.4	12.7	14.7	14.1	13.9	13.6
Ohio	13.2	14.0	13.4	13.6	12.6	13.4
Oklahoma	14.0	14.4	15.0	13.9	13.5	14.2
Oregon	18.5	16.2	16.3	18.2	17.4	17.3
Pennsylvania	14.4	14.9	14.1	14.4	14.1	14.4
Rhode Island	16.6	16.3	17.4	16.3	15.0	16.3
South Carolina	16.1	16.3	16.3	14.4	14.5	15.5
South Dakota	11.7	12.2	12.5	12.6	13.1	12.4
Tennessee	16.0	16.3	15.6	14.9	14.5	15.5
Texas	16.3	16.4	16.4	16.7	17.1	16.6
Utah	14.8	14.7	14.7	14.9	14.6	14.7
Vermont	13.8	15.6	16.5	16.1	15.9	15.6
Virginia	16.5	16.9	18.7	17.7	16.9	17.4
Washington	**16.0**	**18.2**	**16.9**	**17.1**	**17.3**	**17.1**
West Virginia	12.6	14.7	14.3	14.1	13.8	13.9
Wisconsin	14.7	13.6	14.5	13.7	13.2	13.9
Wyoming	11.6	14.7	13.7	14.9	14.6	13.9
United States	16.9	17.6	18.2	17.1	17.0	17.3
Washington's Rank	**28**	**41**	**34**	**35**	**36**	**34**

Source: U.S. Census Bureau, American FactFinder, 2018

Table 3.9
Economic Growth and Competitiveness
Total Average Hourly Wages
(Dollars)

	2014	2015	2016	2017	2018	2014-18
Alabama	19.66	20.15	20.44	20.76	21.05	20.41
Alaska	25.98	26.81	27.26	27.77	28.22	27.21
Arizona	21.43	21.78	22.26	23.15	23.70	22.46
Arkansas	18.24	18.53	19.03	19.49	19.97	19.05
California	25.91	26.57	27.33	27.50	28.44	27.15
Colorado	23.97	24.61	25.34	25.99	26.84	25.35
Connecticut	26.47	27.06	27.87	28.56	29.22	27.84
Delaware	23.81	24.18	24.48	25.10	25.63	24.64
Florida	20.11	20.60	21.18	21.53	22.12	21.11
Georgia	21.48	21.84	22.38	22.69	23.21	22.32
Hawaii	22.23	22.95	23.76	25.02	25.43	23.88
Idaho	19.12	19.62	20.15	20.31	20.90	20.02
Illinois	23.45	24.02	24.76	25.20	25.86	24.66
Indiana	19.94	20.23	20.64	21.13	21.77	20.74
Iowa	19.77	20.12	20.93	21.50	22.19	20.90
Kansas	20.20	20.64	21.13	21.43	21.77	21.03
Kentucky	19.25	19.65	20.08	20.39	20.77	20.03
Louisiana	19.32	19.62	19.84	19.99	20.51	19.86
Maine	20.26	20.80	21.24	21.78	22.50	21.32
Maryland	25.70	26.27	26.98	27.53	28.25	26.95
Massachusetts	27.70	28.37	29.25	29.86	30.72	29.18
Michigan	21.70	22.26	22.76	23.22	23.80	22.75
Minnesota	23.23	23.91	24.68	25.35	26.06	24.65
Mississippi	17.67	18.08	18.41	18.71	18.95	18.36
Missouri	20.57	20.98	21.45	21.89	22.33	21.44
Montana	19.17	19.53	19.92	20.39	21.09	20.02
Nebraska	19.75	20.49	21.24	21.89	22.46	21.17
Nevada	20.34	20.58	21.17	21.65	22.20	21.19
New Hampshire	22.63	23.42	24.13	24.54	25.17	23.98
New Jersey	25.92	26.42	26.94	27.39	27.98	26.93
New Mexico	20.31	20.76	21.23	21.56	21.83	21.14
New York	26.75	27.42	28.32	28.90	29.75	28.23
North Carolina	20.81	21.24	21.77	22.15	22.69	21.73
North Dakota	21.20	21.95	22.66	23.14	23.86	22.56
Ohio	21.11	21.52	22.08	22.57	23.18	22.09
Oklahoma	19.64	20.11	20.56	20.84	21.26	20.48
Oregon	22.53	23.12	23.90	24.52	25.00	23.81
Pennsylvania	22.00	22.38	22.85	23.44	24.05	22.94
Rhode Island	23.83	24.41	24.96	25.54	26.35	25.02
South Carolina	19.03	19.51	19.97	20.31	20.78	19.92
South Dakota	17.93	18.66	19.27	19.60	20.10	19.11
Tennessee	19.55	19.85	20.36	20.94	21.47	20.43
Texas	21.79	22.38	22.97	23.42	23.90	22.89
Utah	20.94	21.22	21.87	22.33	23.04	21.88
Vermont	21.41	22.15	22.90	23.48	24.11	22.81
Virginia	24.40	24.84	25.53	25.95	26.59	25.46
Washington	**25.26**	**25.97**	**26.83**	**27.63**	**28.56**	**26.85**
West Virginia	18.21	18.80	19.35	19.90	20.37	19.33
Wisconsin	20.62	21.12	21.75	22.24	22.77	21.70
Wyoming	21.60	22.04	22.52	22.91	23.38	22.49
U.S. Average *	21.68	22.19	22.77	23.26	23.84	22.48
Washington's Rank	**8**	**8**	**8**	**5**	**4**	**8**

Source: "Occupational Employment Statistics," US

Table 3.10
Economic Growth and Competitiveness
Average Hourly Wages, 2018
(Dollars)

	Management SOC 11-0000	Business and Financial Operations SOC 13-0000	Computer and Mathematical SOC 15-0000	Architecture and Engineering SOC 17-0000	Life, Physical and Social Science SOC 19-0000	Community and Social Services SOC 21-0000
Alabama	52.73	34.47	40.53	41.99	31.18	21.54
Alaska	52.55	37.04	38.60	50.96	35.92	25.77
Arizona	50.45	32.59	39.97	41.02	30.84	21.70
Arkansas	43.58	30.27	32.83	34.13	28.74	20.04
California	65.31	40.05	52.01	48.46	41.18	27.94
Colorado	63.34	37.87	46.58	43.80	36.62	23.98
Connecticut	68.46	40.98	44.51	42.80	40.73	27.62
Delaware	67.42	37.91	44.98	43.96	38.90	22.74
Florida	52.58	32.96	37.87	36.23	31.38	21.37
Georgia	56.69	35.06	42.59	38.93	32.51	22.49
Hawaii	51.68	34.10	38.74	39.14	34.78	25.71
Idaho	39.68	30.64	34.57	39.79	26.54	21.02
Illinois	55.57	36.35	42.17	40.26	34.05	23.40
Indiana	47.60	31.63	36.11	35.51	33.64	21.02
Iowa	48.35	31.64	37.84	34.92	29.61	21.74
Kansas	50.20	32.78	35.21	37.52	31.79	20.23
Kentucky	45.32	30.06	34.08	35.37	29.31	20.33
Louisiana	47.91	29.68	32.14	40.47	32.27	21.03
Maine	46.37	32.17	37.23	36.72	30.98	22.38
Maryland	62.85	39.52	48.35	47.23	44.82	25.53
Massachusetts	64.38	41.34	47.42	44.70	40.99	23.89
Michigan	55.53	34.41	38.11	40.30	30.49	22.81
Minnesota	56.83	35.45	42.00	39.57	36.46	23.55
Mississippi	39.19	29.23	33.62	36.01	29.84	18.99
Missouri	51.64	33.25	37.70	38.38	30.34	19.84
Missouri	43.93	29.66	31.44	34.80	26.91	19.72
Nebraska	47.11	31.65	37.15	35.21	30.22	20.38
Nevada	54.81	32.99	37.96	38.27	31.28	25.34
New Hampshire	58.07	35.45	45.04	40.98	36.45	22.50
New Jersey	72.61	41.29	48.75	45.55	47.68	26.02
New Mexico	47.57	32.34	37.90	45.72	40.30	21.53
New York	74.95	45.55	46.79	43.06	36.67	25.78
North Carolina	59.24	36.02	42.13	37.60	34.14	21.92
North Dakota	47.72	31.82	33.34	36.86	32.37	23.98
Ohio	53.68	33.90	39.46	38.29	32.03	22.01
Oklahoma	47.93	31.14	34.39	39.47	32.90	19.89
Oregon	50.29	34.65	40.93	39.06	31.77	24.22
Pennsylvania	60.48	35.96	40.77	38.48	36.98	21.84
Rhode Island	66.35	37.47	42.32	44.07	39.04	25.49
South Carolina	49.57	31.07	35.59	38.44	31.45	20.75
South Dakota	51.50	30.51	31.58	32.75	26.87	19.44
Tennessee	47.59	30.93	36.21	36.36	31.19	20.29
Texas	58.35	37.25	43.63	47.35	36.97	23.77
Utah	45.32	31.09	39.30	37.48	29.47	22.12
Vermont	47.11	32.82	36.50	38.26	32.31	21.70
Virginia	67.45	40.92	49.25	43.60	41.21	24.31
Washington	**61.23**	**38.73**	**52.24**	**45.99**	**36.20**	**24.87**
West Virginia	43.12	30.04	34.33	36.00	28.05	18.70
Wisconsin	53.95	31.51	37.06	34.79	30.70	21.41
Wyoming	47.65	33.34	32.40	38.77	28.43	23.48
U.S. Average	53.88	34.39	39.64	39.91	33.71	22.56
Washington's Rank	**11**	**8**	**1**	**5**	**16**	**10**

Source: "Occupational Employment Statistics," US Department of Commerce, Bureau of Labor Statistics, 2018

Table 3.10 (continued)
Economic Growth and Competitiveness

Average Hourly Wages, 2018

(Dollars)

	Legal SOC 23-0000	Education, Training, and Library SOC 25-0000	Arts, Design, Entertainment, Sports, and Media SOC 27-0000	Healthcare Practitioners and Technical SOC 29-0000	Healthcare Support SOC 31-0000	Protective Service SOC 33-0000
Alabama	41.71	23.41	22.22	32.26	13.19	18.49
Alaska	45.25	29.79	26.59	48.27	21.73	29.63
Arizona	46.45	22.96	26.16	40.40	15.80	22.79
Arkansas	35.71	22.31	22.42	32.25	13.45	18.07
California	62.77	31.76	34.97	47.55	18.46	29.40
Colorado	54.54	26.40	26.55	40.35	17.07	24.04
Connecticut	55.26	31.71	30.47	45.66	17.30	26.67
Delaware	58.72	26.70	23.80	42.08	16.26	21.58
Florida	45.54	23.45	24.83	36.38	15.12	20.82
Georgia	48.80	24.58	26.37	36.39	14.38	18.99
Hawaii	42.84	25.74	26.86	47.05	17.66	23.96
Idaho	37.99	20.87	20.60	37.27	14.69	21.02
Illinois	58.10	26.72	25.83	38.30	15.51	25.84
Indiana	40.98	23.45	22.72	36.54	14.92	19.99
Iowa	36.56	25.17	19.73	35.31	15.48	21.40
Kansas	37.57	22.02	21.54	33.45	14.14	19.59
Kentucky	38.36	24.12	21.51	33.83	14.60	17.44
Louisiana	38.67	21.53	23.41	31.57	12.78	17.88
Maine	37.99	23.35	21.62	40.35	15.43	19.92
Maryland	45.40	31.36	28.17	42.55	16.46	24.76
Massachusetts	62.53	33.35	30.97	46.92	17.82	27.39
Michigan	41.58	26.79	25.27	38.29	15.00	20.90
Minnesota	45.80	27.12	26.34	42.96	17.23	24.22
Mississippi	35.75	21.24	22.35	30.86	12.37	15.90
Missouri	42.84	24.92	24.28	34.67	14.08	20.91
Montana	33.69	20.73	18.17	37.63	14.77	22.08
Nebraska	39.24	24.80	21.89	35.96	14.80	21.50
Nevada	51.13	24.19	25.88	43.18	17.16	21.42
New Hampshire	46.11	25.33	24.20	43.63	17.30	24.30
New Jersey	53.61	29.02	29.39	45.08	15.36	27.68
New Mexico	39.75	23.88	25.54	37.74	14.31	20.28
New York	65.45	33.78	38.40	43.53	15.53	26.38
North Carolina	43.58	23.60	26.50	36.61	13.80	19.17
North Dakota	37.36	25.10	20.62	35.72	17.03	22.92
Ohio	43.84	27.95	23.62	37.33	14.27	21.45
Oklahoma	41.86	19.26	20.46	33.33	14.04	19.89
Oregon	43.89	29.44	27.11	45.64	17.91	25.00
Pennsylvania	49.40	28.78	24.56	36.47	15.34	22.05
Rhode Island	43.78	31.62	28.30	43.37	16.65	24.04
South Carolina	35.13	23.10	23.34	35.12	13.98	18.59
South Dakota	39.05	20.32	18.35	34.32	14.23	20.11
Tennessee	44.05	24.02	25.56	33.71	14.79	18.87
Texas	52.00	24.93	25.73	37.54	14.70	22.04
Utah	39.39	25.42	23.90	36.93	14.99	20.37
Vermont	40.60	26.63	22.77	39.89	16.66	21.64
Virginia	49.91	27.44	28.82	39.35	15.71	23.02
Washington	**49.43**	**27.19**	**28.15**	**44.16**	**18.22**	**28.53**
West Virginia	36.05	20.89	21.43	32.91	13.55	17.61
Wisconsin	46.10	24.49	22.22	38.25	15.75	21.47
Wyoming	36.29	23.75	20.65	38.67	15.83	21.89
U.S. Average	44.77	25.53	24.82	38.75	15.55	22.08
Washington's Rank	**12**	**13**	**9**	**8**	**3**	**3**

Source: "Occupational Employment Statistics," US Department of Commerce, Bureau of Labor Statistics, 2018

Table 3.10 (continued)
Economic Growth and Competitiveness

Average Hourly Wages, 2018

(Dollars)

	Food Preparation and Serving Related SOC 35-0000	Building and Grounds Cleaning and Maintenance SOC 37-0000	Personal Care and Service SOC 39-0000	Sales and Related SOC 41-0000	Office and Administrative Support SOC 43-0000	Farming, Fishing, and Forestry SOC 45-0000
Alabama	10.28	12.29	11.17	16.92	16.74	16.85
Alaska	13.84	16.96	15.94	18.02	21.49	22.15
Arizona	13.21	13.55	13.28	18.50	18.27	13.14
Arkansas	10.52	11.92	11.26	16.42	16.16	15.59
California	13.91	16.60	14.30	21.67	20.79	13.23
Colorado	13.12	15.01	15.01	23.01	19.68	15.60
Connecticut	13.85	16.93	15.32	22.81	21.61	16.74
Delaware	12.13	14.46	13.52	18.77	19.12	17.26
Florida	12.25	13.01	13.31	18.59	17.39	14.11
Georgia	10.35	12.69	12.52	18.16	17.63	14.55
Hawaii	17.94	17.18	15.66	18.46	19.61	18.60
Idaho	10.68	13.36	12.21	17.21	16.67	15.38
Illinois	11.75	15.00	13.76	20.53	18.88	16.17
Indiana	10.71	13.26	12.00	19.00	17.36	14.83
Iowa	11.07	13.75	12.71	17.33	18.04	16.96
Kansas	10.45	13.37	11.91	18.96	17.11	16.25
Kentucky	10.31	12.91	12.62	16.58	16.43	14.56
Louisiana	10.09	11.36	10.77	15.62	16.05	17.59
Maine	12.97	14.56	13.39	17.55	17.51	17.54
Maryland	12.54	14.81	14.44	20.47	19.93	17.30
Massachusetts	14.89	17.74	16.32	23.52	21.65	17.81
Michigan	11.70	13.76	12.99	19.62	18.04	14.94
Minnesota	12.87	15.85	13.72	21.07	19.76	17.46
Mississippi	10.16	11.34	11.22	14.61	15.61	17.64
Missouri	11.18	13.59	12.05	18.44	17.61	15.98
Montana	11.32	14.16	12.64	17.32	16.82	15.75
Nebraska	11.91	13.85	13.24	18.45	17.49	17.00
Nevada	12.92	15.11	13.24	17.67	17.69	15.50
New Hampshire	12.31	15.05	13.97	19.83	18.93	17.01
New Jersey	13.13	15.49	15.65	22.30	20.05	14.74
New Mexico	10.60	12.41	11.21	15.97	16.95	12.25
New York	14.91	17.54	15.31	26.06	21.28	18.05
North Carolina	10.94	12.60	12.46	19.48	17.57	16.03
North Dakota	12.15	15.35	14.86	19.56	18.74	17.56
Ohio	11.11	13.68	12.48	19.30	17.95	15.57
Oklahoma	10.31	12.06	11.38	17.51	17.01	15.21
Oregon	13.31	14.95	14.17	19.48	18.96	16.70
Pennsylvania	11.73	14.07	12.65	20.03	18.36	15.96
Rhode Island	13.59	15.79	14.39	21.54	19.93	16.95
South Carolina	10.53	12.10	11.64	16.63	16.81	17.45
South Dakota	11.16	12.83	12.58	18.57	15.48	15.08
Tennessee	10.53	12.62	12.04	18.03	17.41	15.10
Texas	11.47	12.60	11.30	20.22	18.03	13.62
Utah	11.32	13.14	12.76	18.84	17.13	14.84
Vermont	15.07	15.57	15.63	19.38	19.23	16.91
Virginia	11.67	13.49	13.26	19.78	18.77	17.42
Washington	**15.23**	**16.94**	**16.49**	**22.25**	**20.90**	**16.46**
West Virginia	10.98	12.50	11.18	14.74	15.91	15.44
Wisconsin	11.19	13.99	12.49	19.50	17.88	16.27
Wyoming	11.98	14.39	13.81	17.03	17.91	15.68
U.S. Average	12.08	14.15	13.24	19.03	18.25	16.14
Washington's Rank	**2**	**5**	**1**	**6**	**5**	**22**

Source: "Occupational Employment Statistics," US Department of Commerce, Bureau of Labor Statistics, 2018

Table 3.10 (continued)
Economic Growth and Competitiveness
Average Hourly Wages, 2018
(Dollars)

	Construction and Extraction SOC 47-0000	Installation, Maintenance, and Repair SOC 49-0000	Production SOC 51-0000	Transportation and Material Moving SOC 53-0000
Alabama	20.35	22.17	17.24	16.10
Alaska	31.61	29.47	22.49	28.52
Arizona	21.70	22.49	18.41	18.59
Arkansas	18.64	20.50	16.49	16.58
California	28.67	26.13	19.38	19.01
Colorado	24.03	24.75	19.71	20.34
Connecticut	28.34	27.15	21.99	18.75
Delaware	24.72	24.65	18.71	16.90
Florida	19.69	20.84	17.00	17.60
Georgia	20.71	22.47	16.83	17.23
Hawaii	33.04	27.12	20.29	22.81
Idaho	20.31	21.39	17.70	16.95
Illinois	32.23	24.52	18.85	19.02
Indiana	24.19	21.98	18.61	17.34
Iowa	22.44	22.69	18.39	18.42
Kansas	21.78	22.45	19.37	18.41
Kentucky	22.60	22.33	18.77	17.79
Louisiana	22.26	22.00	22.22	17.92
Maine	20.91	21.84	19.43	17.02
Maryland	24.36	25.26	19.62	19.44
Massachusetts	30.62	26.86	20.57	19.48
Michigan	24.67	22.99	19.10	18.35
Minnesota	28.63	24.04	19.78	19.68
Mississippi	19.24	20.82	16.92	16.01
Missouri	25.76	21.99	18.23	17.66
Montana	23.56	22.96	19.66	19.11
Nebraska	21.33	22.51	18.54	18.57
Nevada	24.50	24.74	17.79	18.65
New Hampshire	23.27	24.67	19.63	17.69
New Jersey	29.92	26.38	19.30	18.30
New Mexico	21.32	21.83	19.64	17.33
New York	31.14	25.75	19.74	20.66
North Carolina	19.70	22.20	17.03	16.33
North Dakota	26.68	26.46	20.81	21.77
Ohio	24.28	22.45	18.81	17.08
Oklahoma	21.72	22.07	19.16	17.36
Oregon	26.08	23.51	19.03	19.04
Pennsylvania	25.52	23.45	19.21	17.81
Rhode Island	26.09	24.14	19.75	17.44
South Carolina	19.82	21.50	18.75	16.29
South Dakota	19.13	22.65	16.76	16.72
Tennessee	20.09	21.77	17.68	16.83
Texas	21.40	22.57	19.05	19.12
Utah	21.83	22.82	17.96	18.11
Vermont	22.18	22.92	19.57	18.45
Virginia	21.89	24.30	18.45	18.36
Washington	**29.23**	**26.59**	**22.86**	**21.35**
West Virginia	23.31	20.67	19.51	17.35
Wisconsin	25.90	22.88	18.72	17.92
Wyoming	25.16	27.10	26.61	22.17
U.S. Average	24.13	23.56	19.20	18.51
Washington's Rank	**7**	**6**	**2**	**5**

Source: "Occupational Employment Statistics," US Department of Commerce, Bureau of Labor Statistics, 2018

Table 3.11
Economic Growth and Competitiveness
Per Capita Real GDP
(Chained 2009 Dollars)

	2014	2015	2016	2017	2018	2014-18
Alabama	38,479	38,885	38,977	39,600	40,279	39,244
Alaska	72,265	72,652	70,947	70,956	70,936	71,551
Arizona	40,602	40,891	41,564	42,164	43,096	41,663
Arkansas	37,977	37,999	38,051	38,246	38,467	38,148
California	59,804	62,284	63,731	65,675	67,698	63,838
Colorado	55,130	56,476	56,926	57,894	59,057	57,097
Connecticut	66,084	67,433	67,468	67,121	67,784	67,178
Delaware	68,297	69,720	67,127	66,506	66,023	67,535
Florida	40,499	41,333	41,882	42,233	43,052	41,800
Georgia	46,088	47,072	48,058	48,921	49,663	47,960
Hawaii	52,658	54,146	55,148	56,170	56,880	55,000
Idaho	37,614	38,273	38,959	39,072	39,843	38,752
Illinois	56,965	57,657	57,989	58,513	59,980	58,221
Indiana	47,479	46,892	47,507	48,060	48,738	47,735
Iowa	52,973	53,902	53,934	53,547	54,101	53,691
Kansas	49,348	49,813	50,923	51,335	52,297	50,743
Kentucky	40,719	40,822	40,920	41,215	41,659	41,067
Louisiana	49,921	49,589	48,849	48,959	49,606	49,385
Maine	40,141	40,351	41,091	41,659	42,356	41,120
Maryland	56,848	57,536	59,133	60,091	60,886	58,899
Massachusetts	67,046	69,126	70,005	71,153	72,635	69,993
Michigan	43,351	44,330	45,088	45,708	46,858	45,067
Minnesota	56,534	56,787	57,504	58,235	59,057	57,623
Mississippi	33,247	33,386	33,504	33,646	34,029	33,562
Missouri	45,040	45,427	44,882	45,147	46,064	45,312
Montana	42,169	43,400	42,477	42,158	42,173	42,475
Nebraska	57,000	57,982	57,833	57,639	58,141	57,719
Nevada	45,995	47,095	47,361	47,675	48,189	47,263
New Hampshire	52,110	53,263	54,041	54,810	55,744	53,994
New Jersey	59,212	60,154	60,527	61,202	62,263	60,672
New Mexico	42,649	43,473	43,468	43,465	44,187	43,448
New York	68,589	69,634	70,680	71,831	73,531	70,853
North Carolina	45,665	46,621	46,564	46,930	47,778	46,712
North Dakota	76,357	72,426	67,279	66,099	67,308	69,894
Ohio	49,157	49,689	49,987	50,658	51,456	50,189
Oklahoma	48,491	49,763	48,162	48,204	48,954	48,715
Oregon	45,910	47,697	48,964	49,851	50,996	48,684
Pennsylvania	51,981	53,018	53,621	54,508	55,602	53,746
Rhode Island	49,439	50,184	50,125	50,549	50,827	50,225
South Carolina	37,995	38,667	39,221	39,730	39,883	39,099
South Dakota	51,938	53,009	52,642	51,832	51,997	52,284
Tennessee	44,570	45,606	46,101	46,741	47,695	46,143
Texas	56,060	57,844	57,025	57,373	58,417	57,344
Utah	46,262	47,392	48,273	48,593	49,740	48,052
Vermont	45,569	46,073	46,913	47,467	47,921	46,789
Virginia	53,600	54,299	54,143	54,745	55,929	54,543
Washington	**60,310**	**61,891**	**63,071**	**64,529**	**67,242**	**63,409**
West Virginia	37,765	37,729	37,502	38,330	39,495	38,164
Wisconsin	48,893	49,514	49,960	50,496	51,575	50,088
Wyoming	66,193	67,558	65,167	66,083	66,413	66,283
50 State Average	41,535	42,687	43,970	45,112	45,184	43,698
Washington's Rank	**8**	**9**	**9**	**9**	**7**	**9**

Source: Bureau of Economic Analysis, 2019

Chapter 4: Quality of Life – Summary

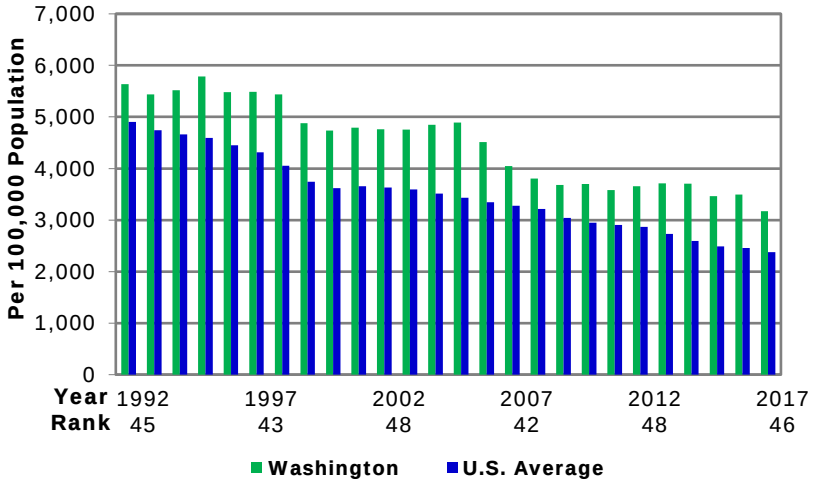
- **Washington's rank improved from 17th to 14th best in the nation in *Quality of Life* this year.**
- **The state's rank relative to other states improved in four indicators, worsened in one, and remained unchanged in four. One indicator was not updated.**

Property Crime, Violent Crime Rate, Arrests Per Violent Crime

The FBI generates consistent criminal statistics across states

Due to former discrepancies including variable reporting methods, crime definitions, multiple reports for different arrests, charges and convictions for a crime, the International Association of Chiefs of Police established the Uniform Crime Reporting (UCR) program. Reported by the U.S. Federal Bureau of Investigation (FBI), the program's primary objective is to generate a reliable set of criminal statistics by mandating specific reporting requirements and criteria for gathering data that

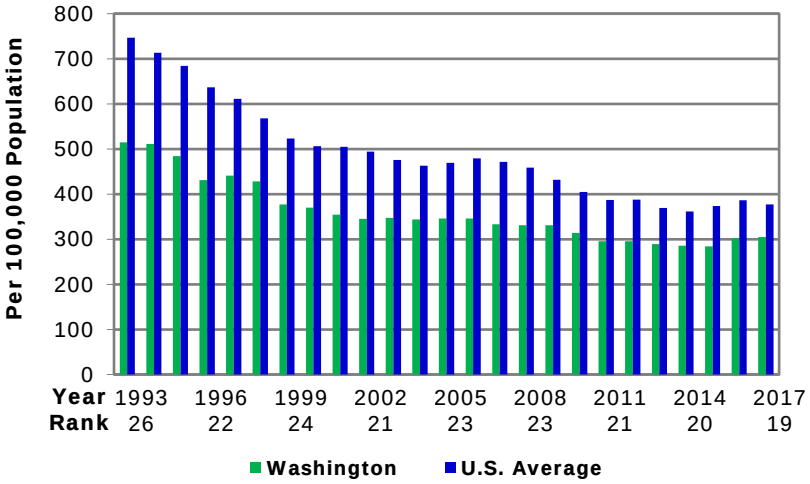
Figure 4.1: Property Crime Rate



Source: U.S. Department of Justice. Federal Bureau of Investigation; data through 2017

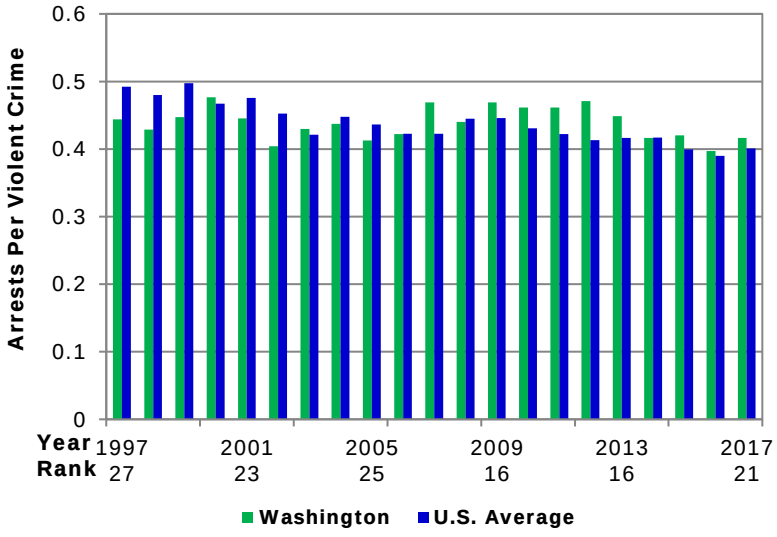
nationwide, statistical effort of over 17,000 cities, counties, and state law enforcement agencies, with data in this report going back to 1991.

Figure 4.2: Violent Crime Rate



Source: U.S. Department of Justice. Federal Bureau of Investigation; data through 2017

Figure 4.3: Arrests per Violent Crime



Source: U.S. Department of Justice. Federal Bureau of Investigation; data through 2017

Washington's violent crimes and arrests per violent crimes ranks remained unchanged

In 2017, Washington's violent crime (murder, non-negligent manslaughter, forcible rape, robbery, and aggravated assault), as measured per 100,000 people, increased from 302 in 2016 to

Property crime decreased from 2016 to 2017, improving its rank to 46th

305 in 2017. Washington's 2017 ranking was 19th in the nation, unchanged from the year before. The property crime (burglary, larceny-theft, motor vehicle theft, and arson) rate in Washington, also measured per 100,000 people, decreased to 3,174 crimes. This improved Washington's rank to 46th in the nation for property crime. In Washington there were 0.42 arrests per violent crime. This is a 0.02 increase from the year before, but Washington's ranking remained at 21st in the nation.

Air Quality

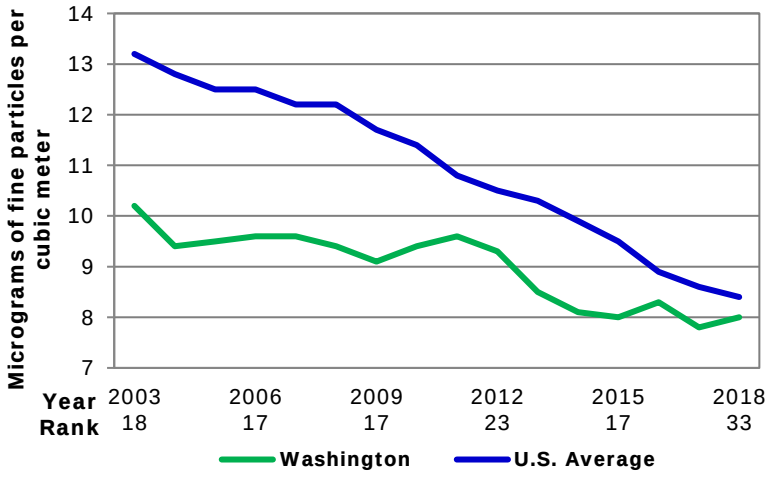
The United Health Foundation measures air pollution

Air quality is measured by the amount of micrograms of fine particles per cubic meter in the air we breathe. The United Health Foundation measures air pollution by particulate matter of 2.5 microns and smaller. The smaller particles are, the more risk there is for health problems. Particulate matter of 2.5 microns or less is known as fine particulate, which is found in smoke and haze.

Data show the micrograms per cubic meter in each state

Air pollution is monitored in places where population density is significant or where pollution has been a problem in the past. The average exposure of the general public to fine particles is found by pollution reports provided by each county reporting in a state, which is weighted by population. In counties where pollution data is not available, it is assumed that pollution is equal to the average of the lowest reported pollution areas in the state or region for each of the last three years. The data reports the micrograms of fine particles per cubic meter in each state.

Figure 4.4: Air Quality



Source: U.S. Environmental Protection Agency. National Air Quality and Emissions Trends Report; data through 2018

Air pollution in WA increased, and rank worsened

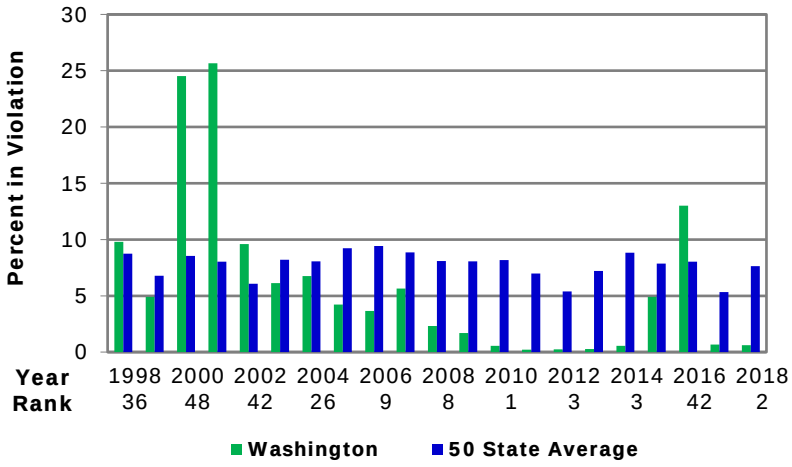
In 2018, there were 8.0 micrograms of fine particles per cubic meter in Washington, an increase from 7.8 in 2017. Washington again remains below the U.S. average, which was 8.4 in 2018. Washington's ranking dropped 8 spots to 33rd in the nation. Washington's five-year average was 8.0 micrograms, and had a ranking of 22nd in the nation.

Drinking Water

Public water systems must abide by the standards established by the EPA

Public water systems must abide by the standards established by the Environmental Protection Agency (EPA) under the federal Safe Drinking Water Act (SDWA). These standards are designed to prevent microbial, chemical, and radiological contaminants in drinking water, and to assure the protection of public health if contamination does occur. The number of contaminants regulated by the EPA has risen from 23 in 1986 to over 100 today.

Figure 4.5: Drinking Water



Source: U.S. Environmental Protection Agency, Community Public Water Systems Compliance Statistics; data through 2018

The EPA annually reports the number of systems whose water has violated SDWA standards

The EPA annually reports the number of systems whose water has violated SDWA standards and the total number of people served by these systems. There are five major categories of violations: Maximum Contaminant Level, Monitoring, Maximum Residual Disinfectant Level, Treatment Technique, and Consumer Confidence and Public/State Notification violations. Each of the violation categories is associated with multiple sub-categories and different Rules, Rule Codes, and Contaminants. The corresponding table, found at the end of the chapter, indicates the percentage of each state's population served by a water system subject to the SDWA that is in violation of any of its rules.

Washington's rank increased to 2nd in the nation

It is important to note that some states represent very large outliers that will affect the results. This year Washington's drinking water index decreased from 0.7 percent to 0.6 percent. This comes after a significant decrease from the year 2016 to 2017. Similar changes were seen in other states as well. Washington's ranking also improved to 2nd in the nation. The U.S. average for that same year was 7.6 percent. Washington's five-year average (2014-18) is 4.0 percent, which is below the five-year U.S. average of 7.5 percent, and ranks 12th in the nation.

Toxins Released

The EPA reports the amount of toxic chemical releases

The Toxics Release Inventory (TRI), reported by the U.S. Environmental Protection Agency (EPA), provides the public with information concerning toxic chemical releases from industrial facilities. Each year, facilities that meet certain thresholds must report their releases and other waste management activities for listed toxic chemicals to the EPA and to the state or tribal entity in whose jurisdiction the facility is located.

Washington doesn't have a widespread presence of high pollutant industries

Before 1998, only facilities in the manufacturing sector were required to report to TRI. Starting in 1994, federal facilities began to report to TRI and in 1998 seven additional industries were added to the required report list. This is the basis for the dramatic increases in the national average for toxins released in 1998 and beyond. States that housed the newly added reporting industries saw a large jump in toxins released beginning in 1998. Washington never saw a noticeable increase in its TRI reports because many of the added industries, such as metal and coal mining, are not widespread in the state.

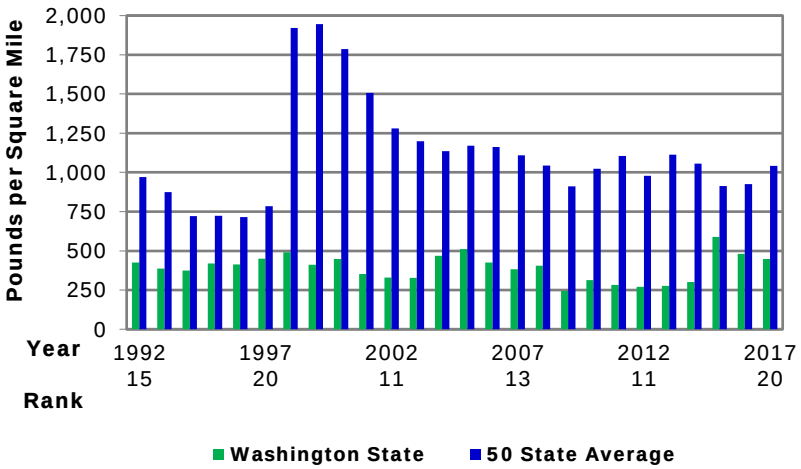
The U.S. reported a 12 percent increase in toxins in 2017

In 2017, U.S. industries reported a 12 percent increase in their total releases of toxics, from 3.44 billion to 3.88 billion. This figure includes effluent releases directly into the air, water or land, whether it is on-site or off-site landfills, surface impoundments, land treatment facilities, or underground injection wells.

Washington's toxin releases decreased to 447 pounds per square mile.

The amount of toxins released in Washington decreased in 2017 to 447 pounds per square mile. This is well below the U.S. average of 1,043 pounds per square mile. Washington's ranking improved to 20th in the nation. Washington's five-year average is 419 pounds per square mile, and the U.S. average in that same period is 1,010. Washington's five-year average ranking is 19th in the nation.

Figure 4.6: Toxins Released



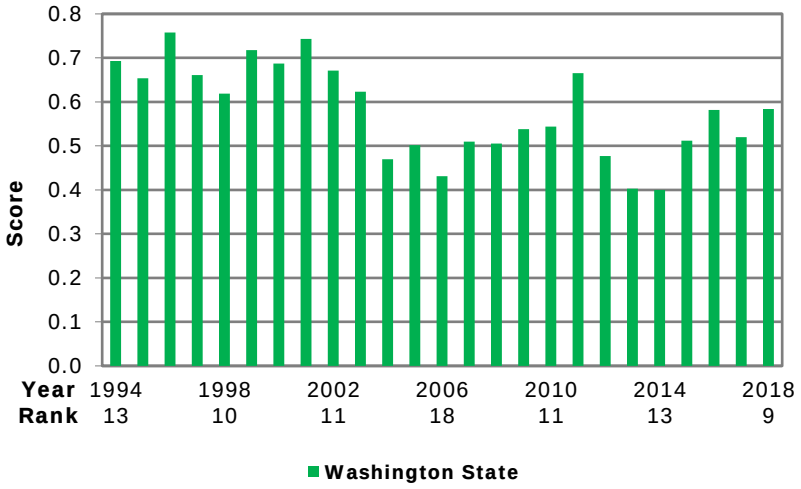
Source: U.S. Environmental Protection Agency. Office of Pollution Prevention and Toxics; data through 2017

State Health Index

The United Health Foundation provides a composite health index for each state

The United Health Foundation America's Health Rankings provide a composite indicator that measures the relative healthiness of each state and the general health of the population in the United States. The measures that comprise America's Health Rankings are of two types – determinants and outcomes. Determinants represent those actions that can affect the future health of the population, whereas outcomes represent what has already occurred. Index values represent scores which are the weighted number of standard deviations a state is above or below the national mean.

Figure 4.7: State Health Index



Source: United Health Foundation, America's Health Rankings; data through 2018

Washington's 2017 index remained at 9th best in the nation

Washington's health index improved to 0.58 in 2018. Over the years, Washington ranks high amongst the other states. In 2018, Washington's ranking remained at 9th in the nation. The five-year average for the index is 0.52, ranking Washington 10th. According to the United Health Foundation, Washington's strengths were: low prevalence of smoking, low preventable hospitalization rate, low prevalence of low birthrate. Washington's challenges were high incidence of pertussis, low meningococcal immunization coverage among adolescents and large disparity in health status by educational attainment.

State Parks and Recreation Areas

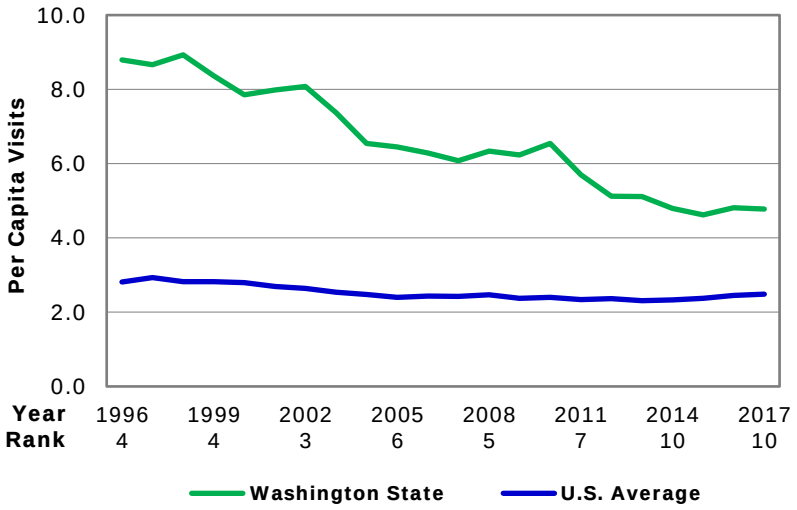
Washington's park system is more than a century old

Established in 1913, the Washington state park system has provided the public with places to recreate and enjoy for over a century. Washington's park system is one of the most abundant and busiest state park systems in the nation. With over 130 state parks and recreation areas covering about 120,000 acres, Washington ranks 3rd among all 50 states in the number of operating parks and 19th in the amount of park acreage managed.

Washington's per capita visits stayed the same but its ranking fell to 10th in the nation

In 2017, the number of per capita park visits was 4.8, the same as the year before. Washington's ranking, however, fell from 9th to 10th in the nation. The U.S. average was 2.5 park visits per capita. Washington's five-year average was also 4.8 visits per capita, and a U.S. average of 2.4. In 2016 and 2017 complete data for Hawaii had not been collected. Absence of these data will affect the U.S. average.

Figure 4.8: State Parks and Recreation Areas



Source: National Association of State Parks Directors. Washington State Parks and Recreation Commission; data through 2017

State Arts

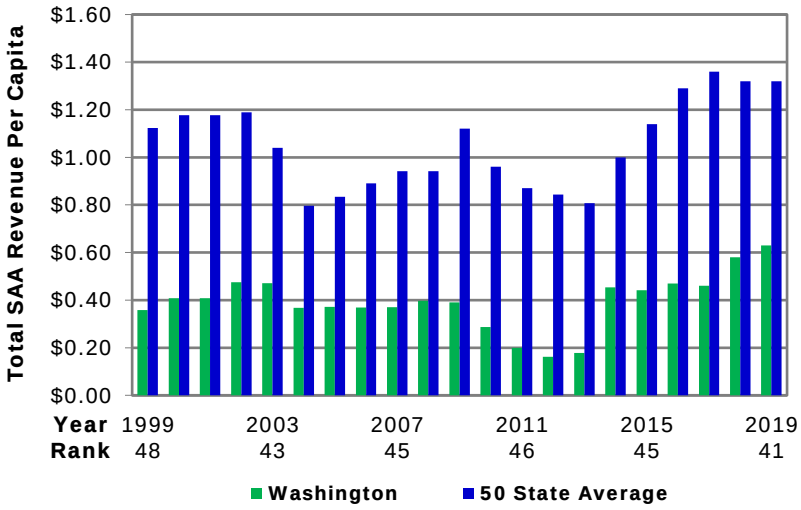
Measures art agency funding

The National Assembly of State Arts Agencies (NASAA) reports annual, fiscal year summaries about state art agency revenue. Using data from these fiscal year reports, the State Arts indicator expresses funding for state art programs and allows for state-to-state comparisons. The estimates for total per capita state arts agency revenue that are shown in Table 4.9 are calculated by totaling state legislative appropriations, other state funds, federal funds from sources such as the National Endowment for the Arts (NEA), and other non-federal funds received. Though arts agencies are the primary source of funding, some states also fund the arts through other agencies, such as arts education through the Department of Education; this funding is not included in the data.

Per capita arts funding was 9th lowest in the nation

Washington's per capita state arts revenue increased from $0.58 in 2018 to $0.63 in 2019. Washington's ranking also improved to 41st in the nation. Washington's per capita state art revenue has always been lower than the U.S. average. However, $0.63 per capita is Washington's highest state arts revenue to date. Washington's five-year average is $0.52 per capita, the U.S. average is $1.29.

Figure 4.9: State Arts



Source: National Assembly of State Arts Agencies; data through 2019

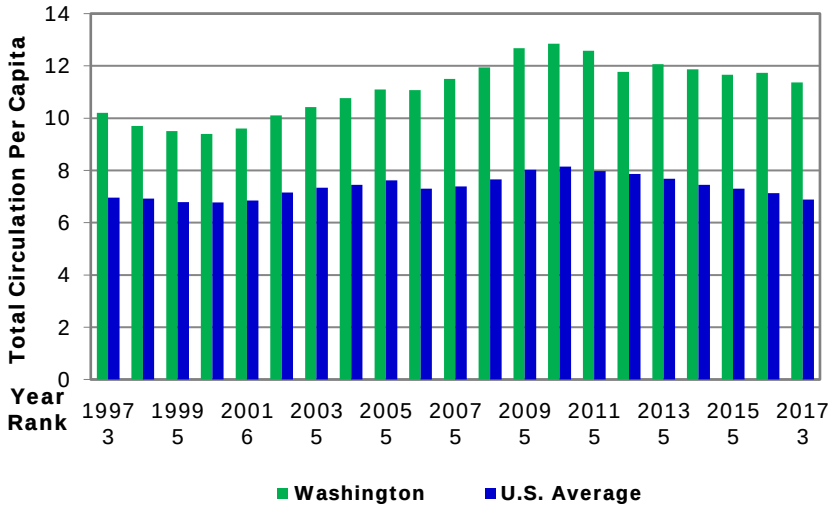
Public Library Service

Measures the amount of circulation per capita

The United States Institute of Museum and Library Services administers the Public Library Survey. The survey has been conducted annually since 1988 and monitors the state of public libraries across the nation. In this climate study, the public library service indicator ranks each state's public library service

by measuring the amount of circulation (or the amount of media such as books, videos, or musical recordings checked out at each library) per capita.

Figure 4.10: Public Library Service



Source: U.S. Department of Education. National Center for Education Statistics; data through 2017

Washington's ranking remained 3rd in per capita circulation

Washington's ranking for circulation per capita in 2017 remained at 3rd in the nation, despite the metric falling 0.3 circulations per capita. In 2017, per capita circulation was 11.4 and the U.S. average was 6.9. Washington has consistently been above the U.S. average. Washington's average for 2013-2017 is 11.8, and the U.S. average for that same period is 7.3.

Table 4.1
Quality of Life
Property Crime Rate
(Per 100,000 Population)

	2013	2014	2015	2016	2017	2013-17
Alabama	3,351	3,178	2,979	2,948	2,957	3,083
Alaska	2,885	2,760	2,818	3,353	3,542	3,072
Arizona	3,399	3,198	3,033	2,978	2,915	3,105
Arkansas	3,603	3,338	3,252	3,269	3,079	3,308
California	2,658	2,441	2,618	2,553	2,497	2,553
Colorado	2,659	2,530	2,642	2,741	2,702	2,654
Connecticut	1,974	1,920	1,812	1,808	1,770	1,857
Delaware	3,066	2,982	2,691	2,766	2,441	2,789
Florida	3,105	3,416	2,813	2,687	2,512	2,907
Georgia	3,347	3,281	3,022	3,005	2,860	3,103
Hawaii	3,054	3,050	3,796	2,993	2,830	3,144
Idaho	1,864	1,855	1,744	1,744	1,635	1,769
Illinois	2,274	2,076	1,989	2,049	2,011	2,080
Indiana	2,854	2,649	2,596	2,589	2,417	2,621
Iowa	2,194	2,094	2,047	2,086	2,125	2,109
Kansas	2,947	2,735	2,720	2,696	2,801	2,780
Kentucky	2,363	2,247	2,178	2,190	2,129	2,221
Louisiana	3,582	3,459	3,353	3,298	3,367	3,412
Maine	2,292	1,986	1,830	1,646	1,507	1,852
Maryland	2,664	2,508	2,315	2,285	2,222	2,399
Massachusetts	2,051	1,857	1,691	1,561	1,437	1,719
Michigan	2,328	2,044	1,886	1,910	1,800	1,993
Minnesota	2,420	2,298	2,222	2,133	2,192	2,253
Mississippi	2,725	2,921	2,834	2,768	2,734	2,796
Missouri	3,137	2,907	2,854	2,799	2,834	2,906
Montana	2,557	2,473	2,624	2,684	2,592	2,586
Nebraska	2,623	2,524	2,241	2,263	2,274	2,385
Nevada	2,838	2,625	2,668	2,587	2,612	2,666
New Hampshire	2,194	1,963	1,746	1,513	1,382	1,759
New Jersey	1,883	1,734	1,627	1,545	1,556	1,669
New Mexico	3,705	3,542	3,697	3,937	3,942	3,765
New York	1,825	1,718	1,604	1,546	1,514	1,641
North Carolina	3,128	2,873	2,750	2,738	2,545	2,807
North Dakota	2,094	2,110	2,117	2,296	2,198	2,163
Ohio	2,928	2,799	2,588	2,578	2,419	2,662
Oklahoma	3,274	2,991	2,886	2,983	2,876	3,002
Oregon	3,174	2,879	2,947	2,964	2,987	2,990
Pennsylvania	2,061	1,932	1,813	1,743	1,649	1,839
Rhode Island	2,442	2,174	1,898	1,899	1,752	2,033
South Carolina	3,624	3,460	3,293	3,244	3,196	3,364
South Dakota	1,915	1,864	1,943	1,981	1,876	1,916
Tennessee	3,181	3,061	2,936	2,854	2,941	2,994
Texas	3,258	3,019	2,831	2,760	2,563	2,886
Utah	2,950	2,879	2,980	2,952	2,780	2,908
Vermont	2,214	1,524	1,407	1,697	1,437	1,656
Virginia	2,066	1,930	1,867	1,859	1,793	1,903
Washington	**3,710**	**3,706**	**3,464**	**3,494**	**3,174**	**3,510**
West Virginia	2,104	2,035	2,020	2,047	1,852	2,012
Wisconsin	2,189	2,088	1,974	1,933	1,808	1,999
Wyoming	2,198	1,965	1,903	1,957	1,830	1,971
United States	2,734	2,596	2,487	2,458	2,377	2,530
Washington's Rank	**50**	**50**	**48**	**49**	**46**	**49**

Source: U.S. Department of Justice. Federal Bureau of Investigation. Crime in the United States-Uniform Crime Reports, 2018.

Table 4.2
Quality of Life
Violent Crime Rate
(Per 100,000 Population)

	2013	2014	2015	2016	2017	2013-17
Alabama	431	427	472	532	524	477
Alaska	640	636	730	804	829	728
Arizona	417	400	410	470	508	441
Arkansas	460	480	521	551	555	514
California	402	396	426	445	449	424
Colorado	308	309	321	343	368	330
Connecticut	263	237	219	227	228	235
Delaware	491	489	499	509	453	488
Florida	470	541	462	430	408	462
Georgia	366	377	378	398	357	375
Hawaii	252	259	293	309	251	273
Idaho	217	212	216	230	226	220
Illinois	380	370	384	436	439	402
Indiana	357	365	388	405	399	383
Iowa	271	274	286	291	293	283
Kansas	340	349	390	380	413	374
Kentucky	210	212	219	232	226	220
Louisiana	519	515	540	566	557	539
Maine	129	128	130	124	121	126
Maryland	474	446	457	472	500	470
Massachusetts	413	391	391	377	358	386
Michigan	450	427	416	459	450	440
Minnesota	234	229	243	243	238	237
Mississippi	275	279	276	281	286	279
Missouri	433	443	497	519	530	485
Montana	253	324	350	368	377	334
Nebraska	262	280	275	291	306	283
Nevada	603	636	696	678	556	634
New Hampshire	215	196	199	198	199	201
New Jersey	289	261	255	245	229	256
New Mexico	613	597	656	703	784	671
New York	394	382	380	376	357	378
North Carolina	342	330	347	372	364	351
North Dakota	270	265	239	251	281	261
Ohio	286	285	292	300	298	292
Oklahoma	441	406	422	450	456	435
Oregon	254	232	260	265	282	259
Pennsylvania	335	314	315	316	313	319
Rhode Island	257	219	243	239	232	238
South Carolina	509	498	505	502	506	504
South Dakota	317	327	383	418	434	376
Tennessee	591	608	612	633	652	619
Texas	408	406	412	434	439	420
Utah	224	216	236	243	239	231
Vermont	121	99	118	158	166	133
Virginia	196	196	196	218	208	203
Washington	**289**	**285**	**284**	**302**	**305**	**293**
West Virginia	300	302	338	358	351	330
Wisconsin	278	290	306	306	320	300
Wyoming	205	196	222	244	238	221
United States	369	362	374	386	377	374
Washington's Rank	**22**	**20**	**17**	**19**	**19**	**20**

Source: U.S. Department of Justice. Federal Bureau of Investigation. Crime in the United States-Uniform Crime Reports, 2018

Table 4.3
Quality of Life
Arrests Per Violent Crime

	2013	2014	2015	2016	2017	2013-17
Alabama	0.07	0.09	0.32	0.31	0.31	0.22
Alaska	0.54	0.53	0.41	0.39	0.39	0.45
Arizona	0.35	0.35	0.34	0.37	0.39	0.36
Arkansas	0.32	0.32	0.33	0.32	0.31	0.32
California	0.66	0.69	0.65	0.61	0.62	0.65
Colorado	0.36	0.37	0.38	0.39	0.41	0.38
Connecticut	0.40	0.48	0.43	0.47	0.48	0.45
Delaware	0.48	0.47	0.47	0.46	0.46	0.47
Florida	0.44	0.37	0.41	0.40	0.42	0.41
Georgia	0.37	0.35	0.29	0.34	0.37	0.34
Hawaii	0.75	0.79	0.37	0.30	0.34	0.51
Idaho	0.44	0.40	0.44	0.42	0.41	0.42
Illinois	0.56	0.44	0.37	0.32	0.31	0.40
Indiana	0.45	0.42	0.40	0.42	0.49	0.44
Iowa	0.54	0.54	0.63	0.60	0.60	0.58
Kansas	0.31	0.29	0.27	0.30	0.28	0.29
Kentucky	0.41	0.41	0.36	0.34	0.35	0.37
Louisiana	0.53	0.36	0.36	0.48	0.45	0.44
Maine	0.47	0.45	0.46	0.47	0.48	0.47
Maryland	0.37	0.40	0.40	0.40	0.35	0.38
Massachusetts	0.40	0.43	0.41	0.40	0.40	0.41
Michigan	0.28	0.28	0.28	0.27	0.27	0.28
Minnesota	0.44	0.45	0.45	0.43	0.45	0.44
Mississippi	0.40	0.43	0.38	0.41	0.38	0.40
Missouri	0.38	0.37	0.36	0.34	0.31	0.35
Montana	0.34	0.30	0.29	0.29	0.32	0.31
Nebraska	0.44	0.47	0.36	0.38	0.23	0.38
Nevada	0.40	0.43	0.41	0.42	0.44	0.42
New Hampshire	0.34	0.36	0.32	0.35	0.35	0.34
New Jersey	0.44	0.47	0.42	0.47	0.44	0.45
New Mexico	0.38	0.39	0.38	0.38	0.42	0.39
New York	0.31	0.31	0.34	0.33	0.34	0.33
North Carolina	0.57	0.57	0.55	0.50	0.50	0.54
North Dakota	0.30	0.33	0.38	0.39	0.41	0.36
Ohio	0.28	0.27	0.22	0.25	0.29	0.26
Oklahoma	0.30	0.30	0.32	0.28	0.28	0.29
Oregon	0.45	0.50	0.46	0.38	0.35	0.43
Pennsylvania	0.55	0.54	0.50	0.49	0.52	0.52
Rhode Island	0.31	0.34	0.34	0.36	0.39	0.35
South Carolina	0.33	0.32	0.29	0.29	0.33	0.31
South Dakota	0.32	0.35	0.39	0.39	0.55	0.40
Tennessee	0.47	0.44	0.42	0.40	0.35	0.42
Texas	0.28	0.27	0.28	0.27	0.27	0.27
Utah	0.33	0.36	0.36	0.33	0.36	0.35
Vermont	0.73	0.86	0.69	0.57	0.67	0.70
Virginia	0.42	0.43	0.40	0.41	0.44	0.42
Washington	**0.45**	**0.42**	**0.42**	**0.40**	**0.42**	**0.42**
West Virginia	0.38	0.45	0.48	0.43	0.45	0.44
Wisconsin	0.51	0.46	0.45	0.44	0.44	0.46
Wyoming	0.47	0.44	0.48	0.37	0.47	0.45
U.S. Average	0.42	0.42	0.40	0.39	0.40	0.40
Washington's Rank	**16**	**25**	**16**	**21**	**21**	**22**

Source: U.S. Department of Justice. Federal Bureau of Investigation. Crime in the United States-Uniform Crime Reports, 2018

Table 4.4
Quality of Life
Air Quality
(Micrograms of fine particles per cubic meter)

	2014	2015	2016	2017	2018	2014-18
Alabama	10.0	9.5	9.1	8.9	8.4	9.2
Alaska	4.9	6.0	8.8	8.7	7.4	7.2
Arizona	9.9	9.7	9.3	9.7	9.7	9.7
Arkansas	10.3	9.7	7.5	7.2	7.1	8.4
California	13.9	12.5	11.4	11.7	11.9	12.3
Colorado	6.8	7.0	6.6	6.6	6.7	6.7
Connecticut	8.7	8.8	8.8	8.6	7.7	8.5
Delaware	10.2	9.7	9.5	9.1	8.6	9.4
Florida	7.4	7.2	6.8	6.8	7.1	7.1
Georgia	10.3	9.8	9.1	9.0	8.6	9.4
Hawaii	8.7	7.6	7.0	5.9	5.8	7.0
Idaho	10.4	11.7	8.5	5.9	7.2	8.7
Illinois	11.4	11.1	10.8	10.2	6.7	10.0
Indiana	11.7	11.3	10.5	9.7	9.6	10.6
Iowa	9.6	9.3	8.6	7.8	8.7	8.8
Kansas	8.8	8.6	8.0	7.3	6.9	7.9
Kentucky	10.4	10.1	9.1	8.8	8.2	9.3
Louisiana	9.2	8.6	8.1	7.8	8.0	8.3
Maine	7.6	7.4	6.8	6.4	6.0	6.8
Maryland	10.0	9.6	9.1	9.0	8.3	9.2
Massachusetts	7.7	7.2	6.4	6.2	6.5	6.8
Michigan	8.8	8.8	8.6	8.7	8.3	8.6
Minnesota	8.0	8.0	8.0	7.5	7.1	7.7
Mississippi	9.3	8.9	8.1	7.5	7.9	8.3
Missouri	10.0	9.7	9.1	8.3	7.6	8.9
Montana	6.3	5.7	6.3	6.0	6.8	6.2
Nebraska	8.0	7.8	7.3	7.0	7.4	7.5
Nevada	9.3	10.0	9.2	9.1	4.5	8.4
New Hampshire	7.5	7.2	6.6	5.9	7.1	6.9
New Jersey	9.0	8.8	8.8	8.5	5.0	8.0
New Mexico	7.1	6.6	6.0	5.7	8.3	6.7
New York	8.5	8.0	7.5	7.2	5.8	7.4
North Carolina	9.0	8.7	8.0	7.8	8.8	8.5
North Dakota	5.4	5.2	4.9	4.2	7.0	5.3
Ohio	10.9	10.6	10.2	9.6	9.0	10.1
Oklahoma	9.7	9.5	8.7	8.1	7.9	8.8
Oregon	6.9	6.7	7.3	6.8	7.7	7.1
Pennsylvania	11.7	11.4	11.0	10.1	9.7	10.8
Rhode Island	8.4	7.8	7.5	7.5	7.6	7.8
South Carolina	9.5	9.0	7.9	7.8	7.4	8.3
South Dakota	6.3	6.3	6.3	5.5	5.4	6.0
Tennessee	9.5	9.1	8.6	8.2	7.7	8.6
Texas	10.2	9.9	9.4	8.9	8.6	9.4
Utah	10.1	8.9	9.2	8.1	8.3	8.9
Vermont	6.4	6.2	5.6	5.5	7.2	6.2
Virginia	8.7	8.3	7.8	7.5	5.2	7.5
Washington	**8.1**	**8.0**	**8.3**	**7.8**	**8.0**	**8.0**
West Virginia	9.8	9.4	7.9	7.7	6.8	8.3
Wisconsin	9.3	9.1	7.9	7.4	7.8	8.3
Wyoming	5.0	5.0	4.4	3.8	5.0	4.6
U.S. Average	9.9	9.5	8.9	8.6	8.4	9.1
Washington's Rank	**16**	**17**	**27**	**25**	**33**	**22**

Source: United Health Foundation, America's Health Rankings, Air Pollution. 2018. (www.ameriashealthrankings.org)

Table 4.5
Quality of Life
Drinking Water Index
(Percent)*

	2014	2015	2016	2017	2018	2014-18
Alabama	5.4	3.2	1.7	0.3	1.4	2.4
Alaska	21.2	11.9	12.6	10.3	6.2	12.4
Arizona	2.5	26.3	26.3	4.8	7.7	13.5
Arkansas	7.5	12.3	9.9	10.3	9.4	9.9
California	2.5	4.0	11.4	1.4	10.9	6.0
Colorado	4.2	1.3	1.4	6.3	5.9	3.8
Connecticut	0.3	1.9	2.0	1.4	3.8	1.9
Delaware	15.2	0.5	0.4	0.2	12.3	5.7
Florida	6.7	7.0	6.7	2.5	3.8	5.3
Georgia	14.3	3.7	3.5	1.8	8.6	6.4
Hawaii	45.4	1.1	2.8	NA	0.0	12.3
Idaho	6.4	7.2	7.6	2.8	5.7	5.9
Illinois	1.4	2.2	1.8	0.9	0.9	1.4
Indiana	5.8	3.9	4.3	2.3	2.0	3.7
Iowa	9.5	13.6	4.5	10.1	1.2	7.7
Kansas	4.5	9.2	7.3	3.0	3.7	5.6
Kentucky	15.3	10.6	33.2	12.5	8.5	16.0
Louisiana	17.5	22.1	17.4	6.7	13.4	15.4
Maine	1.8	1.9	2.2	1.4	1.9	1.8
Maryland	31.8	30.7	33.0	0.8	0.8	19.4
Massachusetts	12.0	6.9	4.3	1.6	2.0	5.4
Michigan	0.8	2.3	1.1	1.3	1.8	1.5
Minnesota	0.7	0.8	0.6	0.1	3.0	1.1
Mississippi	5.9	8.6	4.5	3.3	8.1	6.1
Missouri	4.8	8.8	6.7	3.5	2.2	5.2
Montana	9.5	12.1	10.2	7.4	10.2	9.9
Nebraska	8.2	11.5	8.7	6.4	1.8	7.3
Nevada	0.1	0.5	1.0	0.5	1.0	0.6
New Hampshire	20.5	11.6	2.6	4.9	3.8	8.7
New Jersey	8.0	8.0	12.2	5.2	4.5	7.6
New Mexico	7.8	7.9	12.2	6.2	16.1	10.0
New York	3.7	2.7	3.4	48.6	47.7	21.2
North Carolina	5.8	4.7	3.7	5.9	4.4	4.9
North Dakota	5.8	3.2	0.3	0.1	17.7	5.4
Ohio	6.9	17.8	16.3	2.5	3.7	9.4
Oklahoma	23.5	21.3	19.1	16.4	16.0	19.2
Oregon	18.1	4.5	3.5	3.2	1.7	6.2
Pennsylvania	12.0	15.2	7.0	7.8	20.9	12.6
Rhode Island	14.6	2.5	2.2	NA	46.2	16.4
South Carolina	4.7	4.5	12.8	1.3	3.7	5.4
South Dakota	2.5	4.4	5.3	5.4	1.8	3.9
Tennessee	1.9	5.5	4.4	7.0	2.6	4.3
Texas	7.2	15.5	9.1	5.7	3.9	8.3
Utah	7.7	9.0	16.5	8.7	21.5	12.7
Vermont	8.8	5.6	2.5	1.3	1.5	4.0
Virginia	2.0	1.3	2.2	1.1	3.8	2.1
Washington	**0.5**	**4.9**	**13.0**	**0.7**	**0.6**	**4.0**
West Virginia	3.1	5.3	14.7	11.1	9.3	8.7
Wisconsin	5.1	8.3	5.3	4.3	7.2	6.0
Wyoming	10.8	2.9	6.6	4.2	5.4	6.0
50 State Average**	8.8	7.9	8.0	5.3	7.6	7.5
Washington's Rank	**3**	**23**	**42**	**6**	**2**	**12**

* Lack of data for Hawaii and Rhode Island will effect results for 50 state average
*Percent of population served by water supply in violation of EPA standards.
Source: U.S. Environmental Protection Agency, GPRA Summary Report, 2019

Table 4.6
Quality of Life
Toxins Released
Pounds per square mile

	2013	2014	2015	2016	2017	2013-17
Alabama	1,671	1,732	1,689	1,579	1,480	1,630
Alaska	1,578	1,892	981	1,355	1,908	1,543
Arizona	615	689	750	746	680	696
Arkansas	683	786	615	576	601	652
California	218	190	196	217	165	197
Colorado	263	284	264	311	305	285
Connecticut	408	347	274	311	311	330
Delaware	2,311	2,544	2,580	1,619	2,057	2,222
Florida	1,118	1,075	1,015	1,066	982	1,051
Georgia	1,203	1,160	1,021	916	819	1,024
Hawaii	402	414	398	456	474	429
Idaho	581	601	562	553	430	546
Illinois	2,145	2,068	2,001	1,891	1,878	1,997
Indiana	4,233	4,338	3,774	3,569	3,462	3,875
Iowa	710	634	653	528	609	627
Kansas	263	257	225	222	214	236
Kentucky	1,795	1,791	1,552	1,321	1,218	1,535
Louisiana	2,785	2,786	2,833	2,800	2,899	2,821
Maine	359	302	282	281	352	315
Maryland	686	657	650	462	410	573
Massachusetts	396	382	362	287	479	381
Michigan	722	635	755	727	959	760
Minnesota	306	336	302	277	265	297
Mississippi	1,396	1,450	1,352	1,174	1,366	1,348
Missouri	1,032	1,002	1,085	960	795	975
Montana	237	257	261	234	268	251
Nebraska	337	339	271	231	214	278
Nevada	3,354	2,592	2,926	2,866	3,597	3,067
New Hampshire	82	69	51	28	33	53
New Jersey	1,343	1,325	9,123	1,280	1,295	2,873
New Mexico	187	167	185	159	146	169
New York	308	305	284	260	236	279
North Carolina	1,016	1,171	1,184	1,043	989	1,081
North Dakota	568	616	622	511	454	554
Ohio	2,723	2,565	2,377	2,154	2,487	2,461
Oklahoma	441	384	388	427	431	414
Oregon	176	169	166	173	184	174
Pennsylvania	2,089	1,886	1,444	1,214	1,135	1,553
Rhode Island	246	291	371	240	303	290
South Carolina	1,587	1,495	1,253	1,082	1,056	1,294
South Dakota	87	80	84	81	83	83
Tennessee	1,861	1,990	1,876	1,926	1,953	1,921
Texas	916	944	877	755	757	850
Utah	6,189	2,460	2,700	3,196	3,582	3,625
Vermont	28	32	37	41	42	36
Virginia	1,084	1,001	916	923	814	948
Washington	**276**	**300**	**589**	**480**	**447**	**419**
West Virginia	1,569	1,512	1,300	1,326	1,244	1,390
Wisconsin	548	553	493	449	462	501
Wyoming	206	188	210	187	206	199
U.S. Average	1,114	1,057	912	925	1,043	1,010
Washington's Rank	**12**	**12**	**22**	**22**	**20**	**19**

Source: U.S. Environmental Protection Agency. Office of Pollution Prevention and Toxics.
Toxics Release Inventory Public Data Release Reports, 2018

Table 4.7
Quality of Life
State Health Index
*Score

	2014	2015	2016	2017	2018	2014-18
Alabama	-0.66	0.06	-0.79	-0.76	-0.84	-0.60
Alaska	0.13	-0.70	-0.03	-0.07	-0.12	-0.16
Arizona	-0.04	-0.89	-0.02	-0.11	-0.11	-0.23
Arkansas	-0.93	-0.07	-0.83	-0.77	-0.67	-0.66
California	0.35	0.35	0.35	0.35	0.43	0.37
Colorado	0.57	0.56	0.56	0.62	0.59	0.58
Connecticut	0.74	0.67	0.75	0.70	0.80	0.73
Delaware	-0.23	-0.16	-0.08	-0.10	-0.11	-0.13
Florida	-0.15	-0.17	-0.31	-0.15	-0.09	-0.17
Georgia	-0.32	-0.37	-0.46	-0.43	-0.39	-0.40
Hawaii	0.91	0.89	0.91	0.85	0.88	0.89
Idaho	0.34	0.24	0.36	0.38	0.34	0.33
Illinois	-0.08	0.35	0.08	0.03	0.35	0.15
Indiana	-0.38	0.00	-0.37	-0.36	0.06	-0.21
Iowa	0.22	-0.44	0.34	0.38	-0.43	0.01
Kansas	0.08	0.11	-0.01	0.12	0.04	0.07
Kentucky	-0.75	-0.60	-0.65	-0.51	-0.62	-0.63
Louisiana	-0.80	-0.99	-1.04	-0.91	-1.02	-0.95
Maine	0.30	0.71	0.19	0.21	0.87	0.45
Maryland	0.35	0.33	0.32	0.36	0.31	0.33
Massachusetts	0.74	0.37	0.76	0.92	0.35	0.63
Michigan	-0.21	-0.28	-0.25	-0.21	-0.19	-0.23
Minnesota	0.73	0.70	0.73	0.68	0.67	0.70
Mississippi	-1.00	-0.29	-1.12	-1.04	-0.35	-0.76
Missouri	-0.28	-0.95	-0.34	-0.42	-1.01	-0.60
Montana	0.28	0.21	0.18	0.23	0.30	0.24
Nebraska	0.50	-0.13	0.43	0.40	-0.19	0.20
Nevada	-0.33	0.45	-0.30	-0.29	0.42	-0.01
New Hampshire	0.68	0.49	0.70	0.62	0.38	0.57
New Jersey	0.47	0.69	0.57	0.47	0.69	0.58
New Mexico	-0.18	0.47	-0.36	-0.25	0.46	0.03
New York	0.39	-0.32	0.43	0.51	-0.20	0.16
North Carolina	-0.29	-0.35	-0.19	-0.18	-0.27	-0.26
North Dakota	0.55	0.44	0.47	0.33	0.48	0.45
Ohio	-0.36	-0.37	-0.39	-0.41	-0.42	-0.39
Oklahoma	-0.74	-0.66	-0.69	-0.59	-0.74	-0.69
Oregon	0.41	0.31	0.21	0.30	0.30	0.30
Pennsylvania	0.01	-0.03	-0.02	0.01	-0.01	-0.01
Rhode Island	0.37	0.38	0.42	0.47	0.38	0.40
South Carolina	-0.64	-0.56	-0.53	-0.61	-0.57	-0.58
South Dakota	0.34	0.32	0.17	0.20	0.07	0.22
Tennessee	-0.71	-0.59	-0.63	-0.64	-0.57	-0.63
Texas	-0.11	-0.19	-0.21	-0.19	-0.29	-0.20
Utah	0.73	0.65	0.58	0.73	0.70	0.68
Vermont	0.85	0.29	0.71	0.79	0.31	0.59
Virginia	0.30	0.83	0.26	0.30	0.72	0.48
Washington	**0.40**	**0.51**	**0.58**	**0.52**	**0.58**	**0.52**
West Virginia	-0.71	0.19	-0.60	-0.70	0.22	-0.32
Wisconsin	0.23	-0.77	0.22	0.27	-0.60	-0.13
Wyoming	0.21	0.13	0.12	0.07	0.21	0.15
U.S. Average	0.00	0.00	0.00	0.00	0.00	0.00
Washington's Rank	**13**	**9**	**7**	**9**	**9**	**10**

*Scores reflect the number of standard deviations above or below the national average.
Source: United Health Foundation, America's Health Rankings, 2018

Table 4.8
Quality of Life
State Parks and Recreational Areas
(Per Capita Park Visits) (Fiscal Years)

	2013	2014	2015	2016	2017	2013-17
Alabama	0.9	1.0	1.0	1.0	1.0	1.0
Alaska	6.3	6.3	5.1	4.8	5.0	5.5
Arizona	0.3	0.3	0.4	0.4	0.4	0.4
Arkansas	2.6	2.7	3.0	2.7	2.3	2.7
California	1.8	2.0	1.9	2.0	2.0	2.0
Colorado	2.2	2.2	2.3	2.4	2.7	2.4
Connecticut	2.1	2.3	2.5	2.4	2.6	2.4
Delaware	5.5	5.4	6.8	5.8	6.1	5.9
Florida	1.3	1.4	1.5	1.5	1.5	1.5
Georgia	0.9	0.7	0.8	0.8	0.9	0.8
Hawaii	9.2	9.9	10.4	NA	NA	9.9
Idaho	3.0	3.1	3.0	2.8	3.0	3.0
Illinois	3.2	3.1	3.1	3.1	3.0	3.1
Indiana	2.4	2.5	2.5	2.4	2.6	2.5
Iowa	5.2	5.5	4.6	4.9	4.9	5.0
Kansas	2.3	2.3	2.3	2.5	2.4	2.4
Kentucky	1.6	1.6	1.6	1.4	1.5	1.5
Louisiana	0.4	0.4	0.4	0.4	0.4	0.4
Maine	1.9	1.9	1.9	2.1	2.1	2.0
Maryland	1.7	1.7	1.9	2.1	2.4	2.0
Massachusetts	4.5	4.4	4.4	4.4	4.0	4.3
Michigan	2.5	2.4	2.7	3.1	3.2	2.8
Minnesota	1.5	1.6	1.8	1.7	1.8	1.7
Mississippi	0.3	0.4	0.4	0.4	0.4	0.4
Missouri	2.8	3.1	3.2	3.3	3.5	3.2
Montana	2.0	2.1	2.5	2.6	2.6	2.4
Nebraska	6.4	6.7	6.2	6.4	6.6	6.5
Nevada	1.1	1.1	1.1	1.1	1.3	1.1
New Hampshire	0.9	0.8	0.9	1.0	1.0	0.9
New Jersey	1.6	1.7	1.8	1.8	1.7	1.7
New Mexico	1.8	1.8	2.1	2.5	2.4	2.1
New York	2.7	3.1	3.1	3.4	3.5	3.2
North Carolina	1.4	1.5	1.6	1.8	1.9	1.6
North Dakota	1.6	1.6	1.6	1.8	2.0	1.7
Ohio	4.5	3.7	3.5	3.8	3.7	3.8
Oklahoma	2.1	2.3	2.2	2.5	2.5	2.3
Oregon	11.4	11.7	12.5	13.3	12.7	12.3
Pennsylvania	3.0	3.0	3.0	3.2	3.1	3.0
Rhode Island	5.7	1.2	3.4	7.5	7.7	5.1
South Carolina	1.5	1.6	1.7	1.7	1.6	1.6
South Dakota	9.6	9.2	8.7	8.8	8.9	9.0
Tennessee	4.6	4.9	5.1	5.4	5.8	5.2
Texas	0.3	0.3	0.3	0.3	0.3	0.3
Utah	1.2	1.2	1.5	1.5	1.7	1.4
Vermont	1.4	1.5	1.5	1.7	1.5	1.5
Virginia	0.9	1.1	1.1	1.1	1.2	1.1
Washington	**5.1**	**4.8**	**4.6**	**4.8**	**4.8**	**4.8**
West Virginia	4.1	4.2	4.1	4.0	4.2	4.1
Wisconsin	2.6	2.7	2.7	3.1	3.1	2.8
Wyoming	5.7	6.7	7.6	8.3	8.4	7.3
U.S. Average	2.3	2.3	2.4	2.5	2.5	2.4
Washington's Rank	**10**	**10**	**9**	**9**	**10**	**11**

*Complete data has not been collected for Hawaii for 2016 and 2017
Source: National Association of State Parks Directors. Annual Information Exchange, 2017

Table 4.9
Quality of Life
State Arts
Total Per Capita State Arts Agency Revenue*

(Fiscal Years)	2015	2016	2017	2018	2019	2015-19
Alabama	1.00	1.04	1.16	1.17	1.30	1.13
Alaska	2.56	3.32	3.14	3.13	3.57	3.14
Arizona	0.49	0.35	0.58	0.61	0.57	0.52
Arkansas	1.56	0.81	0.82	0.76	0.74	0.94
California	0.27	0.30	0.64	0.70	0.96	0.57
Colorado	0.79	0.69	0.65	0.57	0.62	0.66
Connecticut	2.17	1.79	1.64	1.74	1.89	1.85
Delaware	4.50	4.41	4.49	4.27	4.31	4.40
Florida	2.41	1.86	2.16	1.48	0.39	1.66
Georgia	0.15	0.16	0.17	0.18	0.19	0.17
Hawaii	4.62	4.33	4.96	5.07	5.15	4.83
Idaho	0.87	0.92	0.93	0.92	0.93	0.91
Illinois	0.85	0.70	0.07	0.84	0.96	0.68
Indiana	0.55	0.62	0.62	0.72	0.71	0.64
Iowa	0.79	0.80	0.80	0.79	0.80	0.80
Kansas	0.22	0.08	0.30	0.30	0.30	0.24
Kentucky	0.82	0.80	0.79	0.79	0.59	0.76
Louisiana	0.64	0.64	0.61	0.64	0.65	0.64
Maine	1.19	1.35	1.32	1.35	1.37	1.32
Maryland	2.88	3.08	3.56	3.49	3.77	3.36
Massachusetts	1.97	2.26	2.30	2.23	2.54	2.26
Michigan	0.98	0.98	0.99	1.08	1.08	1.02
Minnesota	6.41	6.42	7.24	6.31	7.18	6.71
Mississippi	0.87	0.95	0.87	0.82	0.82	0.87
Missouri	1.30	1.31	1.33	1.17	1.17	1.26
Montana	2.44	2.21	1.76	1.93	1.69	2.01
Nebraska	1.46	1.60	1.73	1.65	2.04	1.70
Nevada	0.71	0.83	0.93	0.86	0.86	0.84
New Hampshire	1.02	0.90	0.97	1.01	1.01	0.98
New Jersey	1.93	1.92	1.93	1.92	1.94	1.93
New Mexico	1.04	1.11	0.97	0.96	0.96	1.01
New York	2.06	2.32	2.33	2.33	2.36	2.28
North Carolina	0.85	0.87	0.93	0.91	1.02	0.92
North Dakota	2.04	2.27	2.07	2.08	2.05	2.10
Ohio	1.11	1.35	1.39	1.38	1.38	1.32
Oklahoma	1.16	1.16	0.99	0.93	0.93	1.03
Oregon	0.94	0.82	0.84	0.97	0.90	0.89
Pennsylvania	0.82	0.82	0.90	0.89	0.89	0.86
Rhode Island	2.70	16.84	14.71	11.44	10.10	11.16
South Carolina	0.84	1.04	1.10	1.13	1.26	1.07
South Dakota	1.78	1.85	1.88	1.98	1.97	1.89
Tennessee	1.22	1.21	1.20	1.20	1.19	1.20
Texas	0.26	0.32	0.34	0.24	0.23	0.28
Utah	1.65	1.66	1.57	1.61	1.82	1.66
Vermont	3.01	2.85	2.88	2.80	2.86	2.88
Virginia	0.51	0.52	0.50	0.51	0.53	0.51
Washington	**0.44**	**0.47**	**0.46**	**0.58**	**0.63**	**0.52**
West Virginia	1.24	1.23	1.25	1.16	1.35	1.25
Wisconsin	0.27	0.28	0.28	0.29	0.27	0.28
Wyoming	3.38	3.35	3.04	3.05	3.07	3.18
U.S. Average	1.14	1.29	1.36	1.32	1.32	1.29
Washington's Rank	**45**	**44**	**45**	**44**	**41**	**45**

Source: National Assembly of State Arts Agencies, State Arts Agency Revenues, 2018
the primary source for state

Table 4.10
Quality of Life
Public Library Service
(Circulation per Capita)

	2013	2014	2015	2016	2017	2013-2017
Alabama	4.3	4.2	4.2	4.1	4.1	4.2
Alaska	6.3	6.5	6.1	6.5	6.4	6.3
Arizona	7.2	6.5	6.5	6.4	6.4	6.6
Arkansas	4.9	4.8	4.8	4.6	4.6	4.8
California	5.9	5.8	5.6	5.3	5.3	5.7
Colorado	12.5	12.1	11.6	11.4	11.1	11.9
Connecticut	9.1	8.6	8.3	7.4	6.9	8.3
Delaware	6.6	6.6	6.5	6.6	5.8	6.6
Florida	6.2	5.9	5.6	5.4	4.8	5.8
Georgia	4.2	3.9	3.7	3.7	3.4	3.9
Hawaii	4.7	4.6	4.5	4.4	4.1	4.5
Idaho	9.2	8.8	9.5	9.0	9.1	9.1
Illinois	9.3	8.9	8.7	8.4	8.4	8.8
Indiana	11.8	11.7	11.8	11.2	10.6	11.6
Iowa	9.2	9.0	8.8	8.4	8.0	8.8
Kansas	9.1	8.6	8.6	8.5	8.4	8.7
Kentucky	6.8	6.9	6.9	6.7	6.6	6.8
Louisiana	4.4	4.5	4.5	4.6	4.6	4.5
Maine	7.2	7.0	6.8	6.5	6.4	6.9
Maryland	9.7	9.8	9.7	9.7	9.4	9.7
Massachusetts	9.5	9.3	9.0	9.1	8.0	9.2
Michigan	8.8	8.4	8.2	7.8	7.8	8.3
Minnesota	10.0	9.9	9.6	9.1	8.8	9.7
Mississippi	2.7	2.7	2.6	2.5	2.4	2.6
Missouri	9.3	9.2	9.0	8.8	8.5	9.1
Montana	6.2	5.8	5.9	5.8	5.7	5.9
Nebraska	7.2	7.0	6.8	6.6	6.5	6.9
Nevada	7.5	7.5	7.3	6.9	6.2	7.3
New Hampshire	8.2	7.8	7.5	7.7	7.7	7.8
New Jersey	6.7	6.6	6.3	6.0	5.8	6.4
New Mexico	4.4	4.4	4.4	4.5	4.5	4.4
New York	7.8	7.3	6.8	6.7	6.5	7.1
North Carolina	5.4	5.3	5.1	4.9	4.8	5.2
North Dakota	5.8	5.4	5.2	5.7	4.8	5.5
Ohio	16.0	15.8	15.7	15.9	14.6	15.8
Oklahoma	5.9	5.6	5.6	5.7	6.0	5.7
Oregon	15.4	14.4	14.0	13.5	13.0	14.3
Pennsylvania	5.3	5.2	5.1	5.0	4.8	5.1
Rhode Island	6.8	6.8	6.4	6.1	5.7	6.5
South Carolina	5.6	5.4	5.4	5.1	4.8	5.4
South Dakota	8.3	6.8	6.8	6.9	6.8	7.2
Tennessee	3.9	4.0	4.0	4.0	4.0	4.0
Texas	4.5	4.2	4.2	4.2	4.1	4.3
Utah	12.9	12.7	12.4	11.6	10.9	12.4
Vermont	7.4	7.2	7.1	6.7	6.3	7.1
Virginia	9.2	9.0	8.6	8.1	7.8	8.7
Washington	**12.1**	**11.9**	**11.7**	**11.7**	**11.4**	**11.8**
West Virginia	3.4	3.4	3.4	3.6	3.6	3.4
Wisconsin	11.0	10.5	10.1	9.9	9.6	10.4
Wyoming	8.6	8.4	8.4	8.3	8.1	8.4
U.S. Average*	7.7	7.5	7.3	7.1	6.9	7.3
Washington's Rank	**5**	**5**	**5**	**3**	**3**	**5**

Source: U.S. Institute of Museum and Library Services, Public Libraries in the United States Survey, 2018.

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