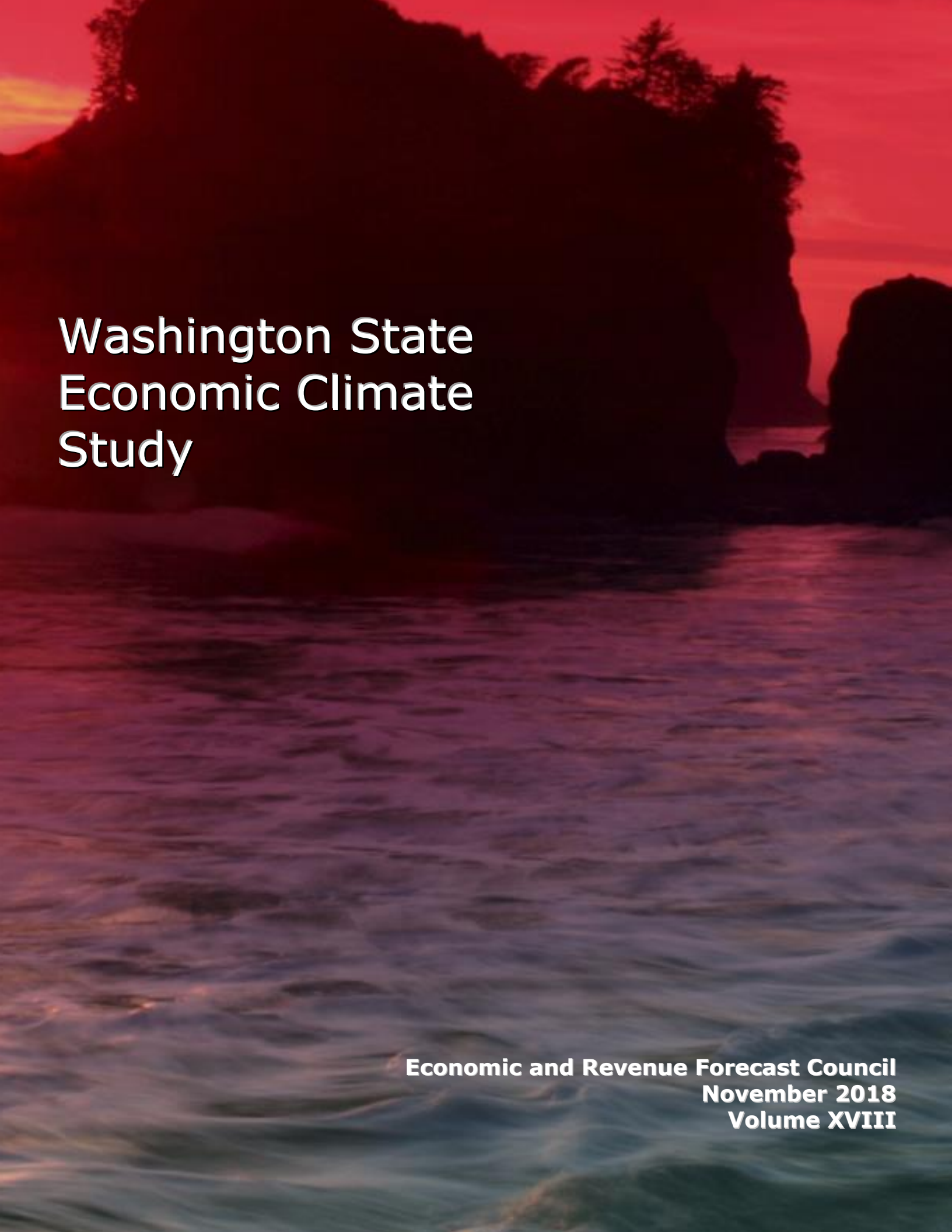

Washington State Economic Climate Study

Economic and Revenue Forecast Council
November 2018
Volume XVIII

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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

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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 2nd best 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 September 2017. 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-seven 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-seven indicators are presented.

Recent Performance

Washington's rank remained at 2nd best

Washington's rank improved in fourteen cases, worsened in twenty cases, and stayed the same in eleven. Two of the four major categories in the climate study improved in rank from last year, one declined, and one remained unchanged.

Innovation Drivers improved from 5th to 4th best in the nation

Washington's rank in *Innovation Drivers* remained at 4th best in the nation. Four of *Innovation Driver*'s indicators improved while seven worsened. Five indicators were unchanged. The Infrastructure subcategory improved the most, two indicators improved and one worsened. Establishment birth rate had the most significant change in terms of rank, dropping seven spots to 22nd best in the nation.

Business Performance worsened from 4th to 8th

Business Performance worsened from 4th to 8th best in the nation. Of the nine indicators updated in *Business Performance*, Washington's rank improved in two, worsened in six, and remained unchanged in one. One indicator improved and five worsened in the subcategory *Business Prosperity*. One indicator improved, one worsened, one remained unchanged, and one was not updated in subcategory *Cost of Doing Business*. Growth in high wage industries had the largest change in rank, dropping from 1st to 9th best in the nation.

Economic Growth and Competitive-ness improved from 7th to 5th highest

Washington's ranking in the *Economic Growth and Competitiveness* category rose from 7th highest to 5th highest in the nation. This was the best performing category in this year's study. Of the ten indicators in this category, four improved, two worsened, and four remained unchanged. Washington's ranking in average wage had the largest change; improving from 8th to 5th highest in the nation.

Quality of Life improved to 18th in the nation

Quality of Life improved two places to 18th in the nation in this year's study. The state's rank improved in four instances, worsened in five, remained unchanged in one. Arrests per Violent Crime was the worst performing indicator, falling from 16th best to 21st best. Drinking water was the most improved indicator, increasing significantly from 42nd to 6th 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 2018 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

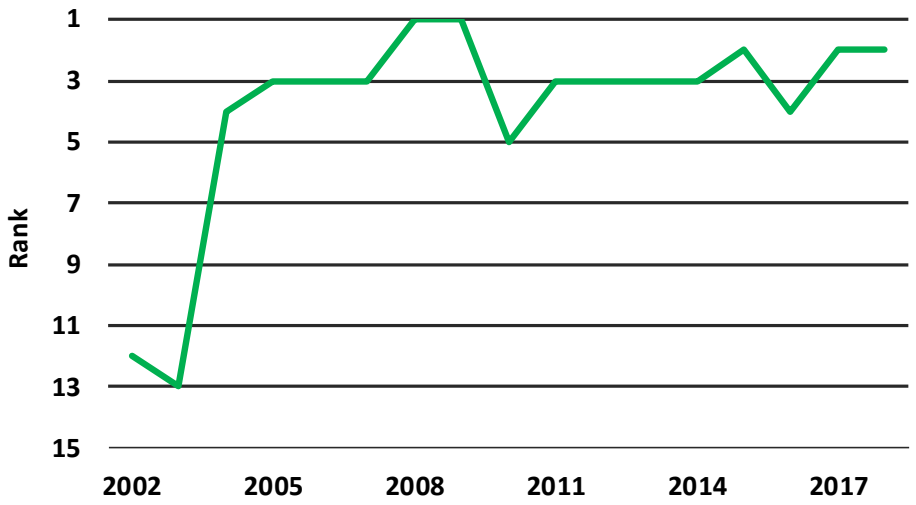
regarding the importance of any given measure in constructing the composite state scores. The drawback to weighting in this manner is that indicators in different chapters have weights that may not appear reasonable when compared. In chapters with only a few indicators, each measure is weighted more 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 South Dakota have composite scores of 23.7 and 24.2, respectively. These scores do not mean that Vermont and South Dakota both rank 24th, they merely both tend to rank about 24th *on average*. In fact, Vermont and South Dakota ranked 15th and 19th respectively in 2018. 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 2018 is Massachusetts with 18.7 while the worst is Alaska 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 ten over the past decade



Source: ERFC, data through 2018

Washington ranked 2nd best in the nation

Washington's 2018 composite score of 19.0 means that Washington tends to rank around 19th 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 19th best state. 19.0 is actually the second lowest composite score in the nation, which makes Washington the 2nd best state in the nation based on the indicators in the 2018 Washington State Economic Climate Study.

Table ES.1: Washington Overall Rank

Year	Rank
2002	12
2003	13
2004	4
2005	3
2006	3
2007	3
2008	1
2009	1
2010	5
2011	3
2012	3
2013	3
2014	3
2015	2
2016	4
2017	2
2018	2

Source: ERFC, data through 2018

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

Indicator/Benchmark	Rank	
	Current	5Y Avg
Innovation Drivers	***4***	***4***
Talent and Workforce		
Total Public Two and Four Year Combined College Participation Rate	31	31
Education Attainment: Completed 9th Grade or Less	23	23
Education Attainment: Completed Four Years of High School or More	16	16
Education Attainment: Completed Bachelor's Degree or More	10	11
Research Doctorates Awarded Per Capita	37	35
Migration Rate	4	6
H-1B Visas	5	3
Entrepreneurship and Investment		
Per Capita University Research and Development Spending	16	19
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	8	6
Establishment Birth Rate	22	20
Infrastructure		
Interstate Miles in Poor Condition	42	43
FAA Air Traffic	44	35
Broadband Adaption	9	6
Unlinked Passenger Trips Per Capita	6	8
Rail Freight Value	18	19
Business Performance	***8***	***5***
Business Prosperity		
Foreign Exports	3	2
Foreign Exports Excluding Transportation Equipment	15	11
High Wage Industries' Share of Total Employment	13	13
Growth in High Wage Industries' Share of Total Employment	9	7
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	2	1
State and Local Tax Collections Per $1,000 Personal Income	19	16
Unemployment Insurance Costs	36	34
Workers' Compensation Premium Costs	36	27

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

Indicator/Benchmark	Rank	
	Current	5y Avg
Economic Growth and Competitiveness	***5***	***9***
Per Capita Personal Income	9	11
Per Capita Personal Income Growth Rate	4	2
Relative Value of $100	38	39
Total Employment Growth Rate	5	7
Median Household Income	8	11
Unemployment Rate	38	31
Housing Affordability Index	37	43
Income Spent on Rent	35	33
Average Wage	5	8
Per Capita GDP	9	9
Quality of Life	***18***	***18***
Property Crime	49	49
Violent Crime	19	19
Arrest Rates for Violent Crime	21	18
Air Quality	25	19
Drinking Water	6	12
Toxins Released	22	18
State Health Index	9	10
State Parks and Recreation Areas	10	11
State Arts	44	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	Unchanged	Worsened
Education Attainment: Completed 9th Grade or Less	Worsened	Unchanged
Education Attainment: Completed Four Years of High School or More	Improved	Unchanged
Education Attainment: Completed Bachelor's Degree or More	Improved	Improved
Research Doctorates Awarded Per Capita	Worsened	Worsened
Migration Rate	Worsened	Unchanged
H-1B Visas	Improved	Worsened
Entrepreneurship and Investment		
Per Capita University Research and Development Spending	Improved	Improved
Per Capita Industry Research and Development Spending	Improved	Unchanged
Per Capita Government Research and Development Spending	Worsened	Worsened
Patents Issued Per 100,000 Residents	Not updated	Not updated
Venture Capital	Improved	Worsened
Establishment Birth Rate	Worsened	Worsened
Infrastructure		
Interstate Miles in Poor Condition	Worsened	Unchanged
FAA Air Traffic	Worsened	Worsened
Broadband Adaption	Not updated	Not updated
Unlinked Passenger Trips Per Capita	Improved	Improved
Rail Freight Value	Improved	Improved
Business Performance		
Business Prosperity		
Foreign Exports	Worsened	Worsened
Foreign Exports Excluding Transportation Equipment	Worsened	Worsened
High Wage Industries' Share of Total Employment	Improved	Improved
Growth in High Wage Industries' Share of Total Employment	Worsened	Worsened
Value Added per Hour of Labor in Manufacturing (weighted)	Improved	Worsened
Value Added per Hour of Labor in Manufacturing (unweighted)	Improved	Worsened
Cost of Doing Business		
Electricity Costs	Worsened	Unchanged
State and Local Tax Collections Per $1,000 Personal Income	Worsened	Worsened
Unemployment Insurance Costs	Improved	Improved
Workers' Compensation Premium Costs	Not Updated	Not Updated
Economic Growth and Competitiveness		
Per Capita Personal Income	Improved	Improved
Per Capita Personal Income Growth Rate	Improved	Improved
Relative Value of $100	Improved	Unchanged
Total Employment Growth Rate	Worsened	Unchanged
Median Household Income	Improved	Unchanged
Unemployment Rate	Improved	Worsened
Housing Affordability Index	Worsened	Improved
Income Spent on Rent	Worsened	Worsened
Average Wage	Improved	Improved
Per Capita GDP	Improved	Unchanged

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

Indicator/Benchmark	Performance	Rank
Quality of Life		
Property Crime	Worsened	Worsened
Violent Crime	Worsened	Worsened
Arrests Per Violent Crime	Worsened	Worsened
Air Quality	Improved	Improved
Drinking Water	Improved	Improved
Toxins Released	Improved	Unchanged
State Health Index	Worsened	Worsened
State Parks and Recreation Areas	Unchanged	Worsened
State Arts	Improved	Improved
Public Library Service	Improved	Improved

Table ES. 4
Executive Summary
Ranking Index

	2014	2015	2016	2017	2018
Alabama	47	47	45	43	42
Alaska	39	42	46	46	50
Arizona	27	25	39	39	37
Arkansas	50	49	49	45	48
California	26	21	19	24	22
Colorado	6	5	7	10	10
Connecticut	15	12	11	15	12
Delaware	16	16	13	14	14
Florida	37	29	37	33	35
Georgia	40	43	35	37	39
Hawaii	32	37	34	38	31
Idaho	29	33	31	30	23
Illinois	28	23	27	28	27
Indiana	19	20	23	18	16
Iowa	4	9	10	9	9
Kansas	17	24	28	27	28
Kentucky	43	44	40	40	43
Louisiana	42	40	48	50	46
Maine	38	39	33	35	36
Maryland	21	28	21	20	11
Massachusetts	10	7	3	3	1
Michigan	24	22	24	13	18
Minnesota	5	3	2	5	3
Mississippi	49	50	50	47	49
Missouri	25	30	25	26	26
Montana	35	36	32	36	33
Nebraska	8	6	8	7	7
Nevada	44	38	41	41	41
New Hampshire	18	19	14	6	6
New Jersey	34	31	29	32	38
New Mexico	48	48	47	49	47
New York	23	27	17	19	21
North Carolina	36	26	26	25	30
North Dakota	1	1	6	8	5
Ohio	22	18	20	23	25
Oklahoma	30	41	43	44	44
Oregon	9	8	5	4	8
Pennsylvania	33	32	38	31	32
Rhode Island	31	34	30	34	29
South Carolina	46	46	42	42	40
South Dakota	20	14	15	12	19
Tennessee	41	35	36	29	34
Texas	11	11	16	21	17
Utah	2	4	1	1	4
Vermont	13	15	22	11	15
Virginia	14	13	9	17	13
Washington	**3**	**2**	**4**	**2**	**2**
West Virginia	45	45	44	48	45
Wisconsin	12	17	18	16	24
Wyoming	7	10	12	22	20

Source: ERFC, data through 2017

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Chapter 1: Innovation Drivers – Summary

- **Washington ranks 4th best in the nation in *Innovation Drivers* this year. Sixteen of the eighteen indicators in this category were updated; four improved, seven worsened, and five remained unchanged.**
- **In the subcategory *Talent and Workforce*, Washington's rank improved in one indicator, worsened in three, and was unchanged in three.**
- **In the subcategory *Entrepreneurship and Investment*, the state's rank improved in one indicator, worsened in three, and remained unchanged in one. One was not updated.**
- **In the subcategory *Infrastructure*, Washington's rank improved in two indicators, worsened in one, and remained unchanged in one. One was not updated.**

Talent and Workforce

Public Two and Four Year College Combined Participation Rate

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

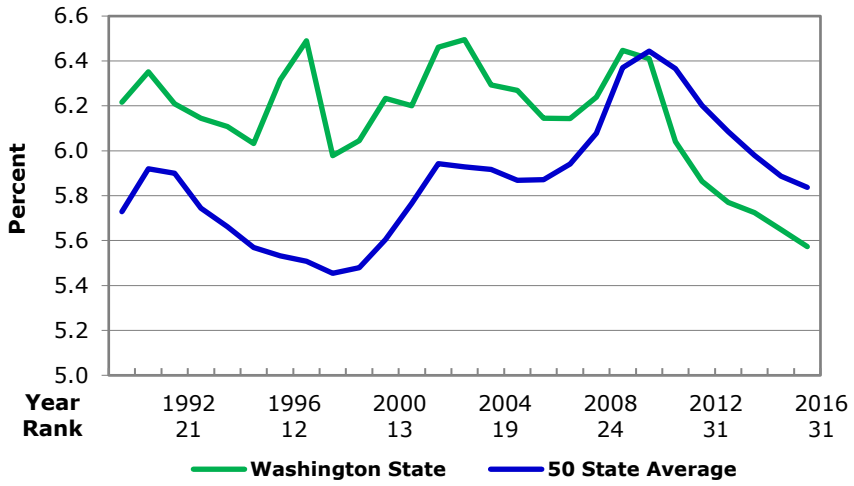
Washington, more than most states, relies heavily on the community college system to provide the first two years of a college education. As a result, Washington and states with similar policies have higher than average two-year participation rates and lower than average four-year participation rates. 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 2016, Washington participation remained the same as 2015 at 5.6 percent, slightly less than the 50-state

average of 5.8. However, this year the states ranking decreased from 30th place to 31st. Washington's average participation rate from 2012-16 is 5.7 percent, just below the 50-state average of 6.0 and ranks 31st 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 2016

Education Attainment: Completed Less than 9th Grade

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

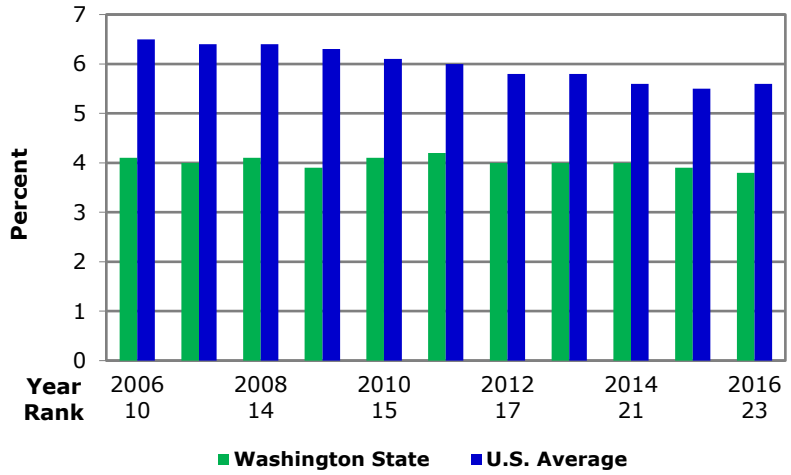
The U.S. Census Bureau, as a part of its annual American Community Survey, tabulates the percent of the population aged 25 years or older than has less than a 9th grade education. The less than 9th grade education indicator gives an important look at the approximate size of the pool of low-skill workers 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 $27,040, 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 2016, 3.8 percent of Washington's population has less than a 9th grade education

In 2016, the Census Bureau reported that 3.8 percent of Washington's population aged 25 years or older had less than a 9th grade education, representing a slight decrease from 2015 of 0.1 percent. The state outperformed the national average of 5.6 percent. Despite Washington's decrease in the number of its residents with less than a high school education, the state's ranking was 23rd in the nation, the same as 2015. The state's five-year average rank was also 23rd. The state's 5-year average of 3.9 percent is lower than the U.S. five-year average of 5.7

percent. So while Washington's ranking has fell, the percent of those who have completed less than 9th grade education is still 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 2016

Education Attainment: Completed Four Years of High School or More

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

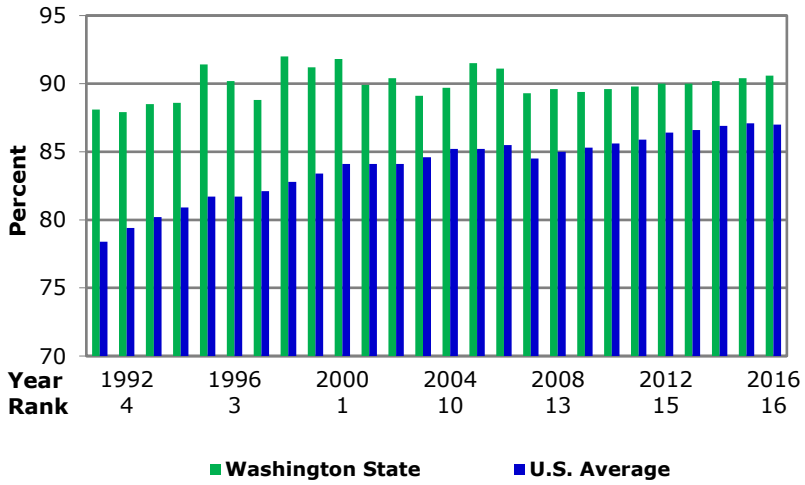
In the annual American Community Survey, the U.S. Census Bureau measures the percent of the population aged 25 years or older that has completed four years of high school. A completed high school level degree is necessary to continue toward associates, bachelors, or other advanced degrees, so this indicator 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 $27,040 while that of a person with only a high school diploma was $37,024 (Bureau of Labor Statistics).

In 2015, Washington's rank stayed at 16th

In Washington 90.6 percent of the population has completed four years of high school or more in 2016, slightly improving from 90.4 percent in 2015. The U.S. average was 87.0 percent in 2016. Washington is above the national average and slightly improving, and the state's rank stayed the same as 2015; 16th overall. 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 90.2 percent, however, remains 3.4 percentage

points higher than the five-year national average of 86.8 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 2016

Education Attainment: Completed Bachelor's Degree or More

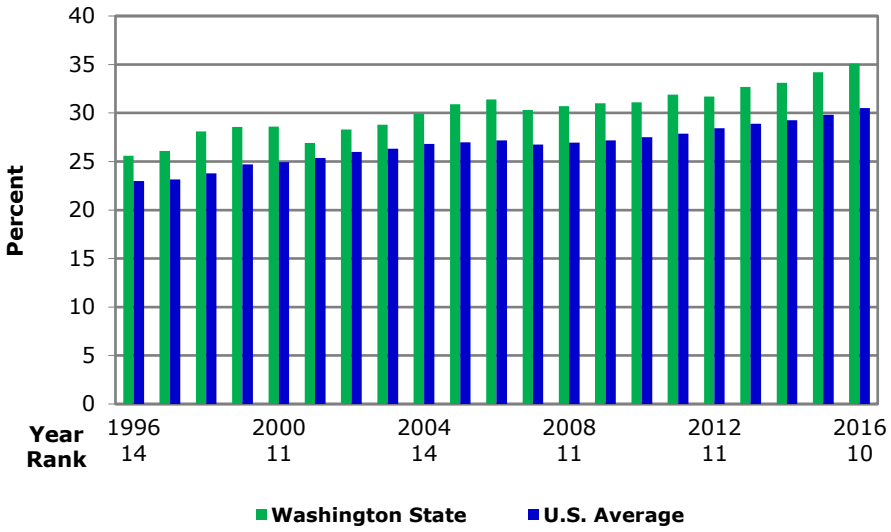
Higher educational attainment is associated with higher earnings

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 $60,996, while the median was $37,024 for those with only a high school diploma (Bureau of Labor Statistics).

The state's 2016 rank increased from 2015

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. The number of residents age 25 or older with a bachelor's degree or more increased in 2016, changing from 34.2 percent in 2015 to 35.1 percent. This is higher than the U.S. average of 30.5 percent. Washington's five-year average is 33.4 percent, placing it at 11th in the nation. The 5 year national average is 29.4 percent.

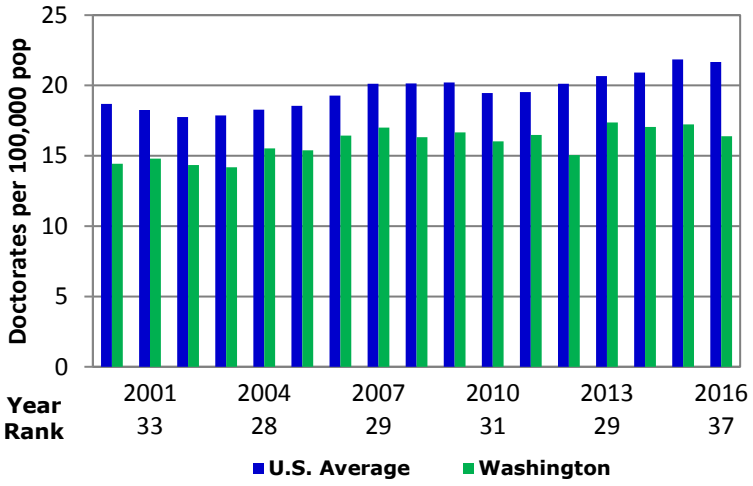
Figure 1.4: Education Attainment: Completed Bachelor's Degree or More



Source: U.S. Department of Commerce, Bureau of the Census; data through 2016

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 2016

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 worsened from 35th in 2015 to 37th in 2016.

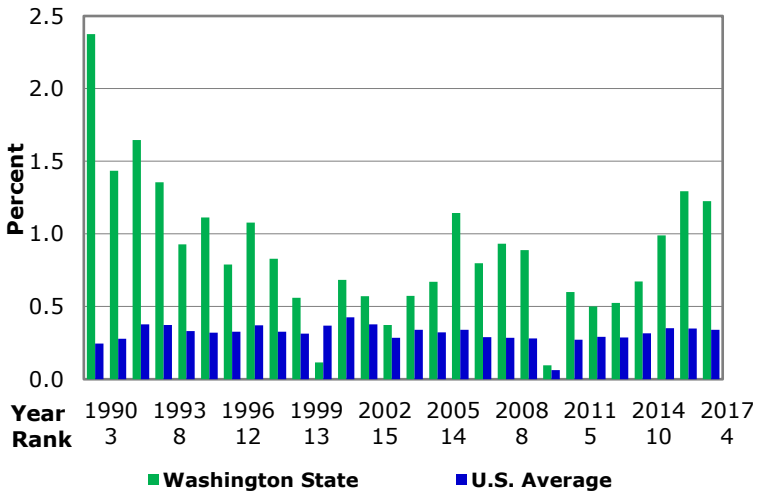
In 2016, the number of individuals who received research doctorates in Washington was 927. Washington awarded 16.4 doctoral degrees per 100,000 population age 18+ in 2016, a 0.8 point decrease from the previous year. Washington's rank worsened, moving from 35th in the nation to 37th. In 2016 the average amount of doctorates awarded per 1,000 people was 21.7. Washington's five-year average of 16.6 research doctorates awarded ranked 32nd among the states and was below the national average of 21.0.

Migration Rate

Washington ranks 4th overall for migration

Washington continues to be a relatively popular destination for international and domestic migration, ranking 4th in terms of total migration in both 2016 and 2017. From 2013 to 2016, the state's migration rate has been incrementally increasing, but dropped from 1.3 percent in 2016 to 1.2 percent in 2017. Washington's 2017 migration rate is significantly higher than the U.S. average migration rate of 0.3 percent. Washington's five-year average migration rate is 0.9 percent, ranking 6th highest among the states listed.

Figure 1.6: Migration Rate



Source: Population Division, U.S. Census Bureau; data through 2017

Over half of the state's population increase came from migration

Washington population growth in 2017 was 1.71 percent, while the U.S. as a whole was 0.7 percent. Natural increases accounted for 27 percent of the state's growth while 73 percent came from migration. Of the state's immigrants, 28 percent were

international and 71 percent were domestic. In the U.S. as a whole, 52 percent of population growth came from natural increase while 48 percent from international migration.

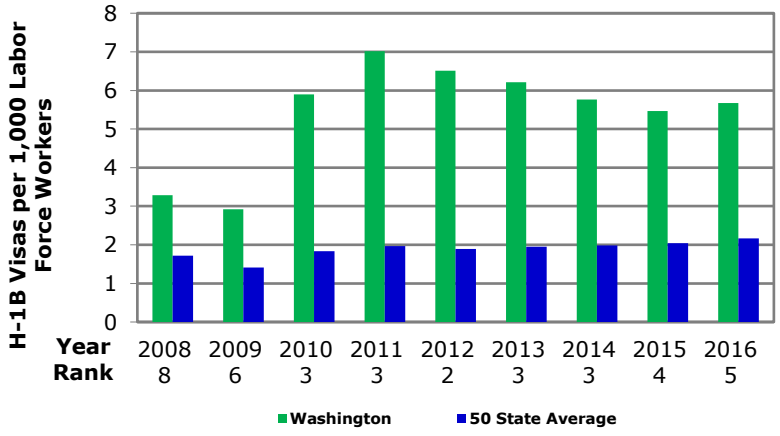
H-1B Visas

In 2016, Washington's ranking dropped to 5th 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 2016, Washington's ranking dropped to 5th in the nation from 4th in 2005. 5.67 out of every 1,000 workers in Washington held an H-1B visa. This is an increase from 5.47 in 2015. 2016 is the first time in 5 years the number of H-1B visas has increased. Washington's five year average is 5.92, the third highest in the nation. This is well above the 50 state average of 2.01. 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 2016

Entrepreneurship and Investment

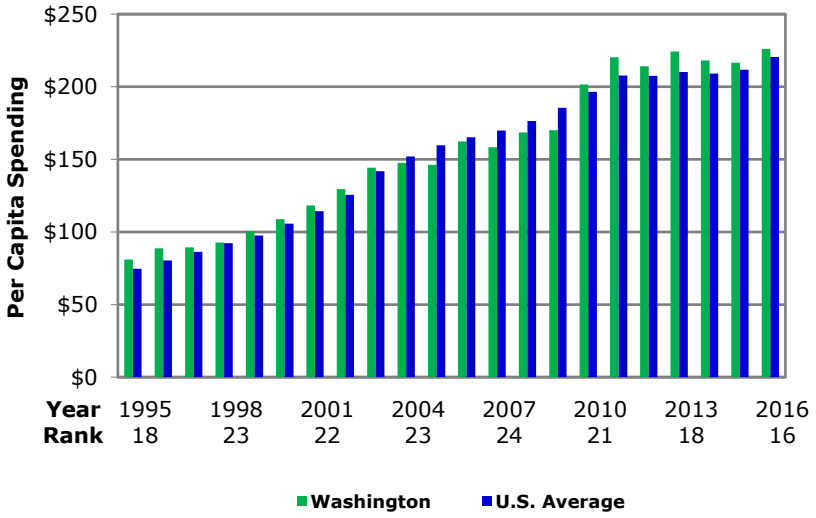
Per Capita Spending in Research and Development, University, Industry, and Government

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

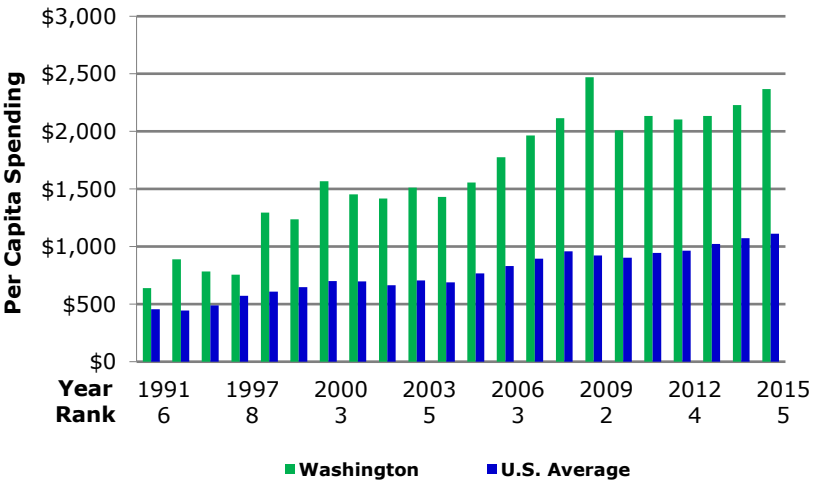
good indication of that state's capacity for innovation. Industrial research and development brings new products and processes for continued growth. University and government research and development can provide basic research to support local technology hubs and can also attract funding from outside of the state.

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



Source: The National Science Foundation; data through 2016

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



Source: The National Science Foundation; data through 2015

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.

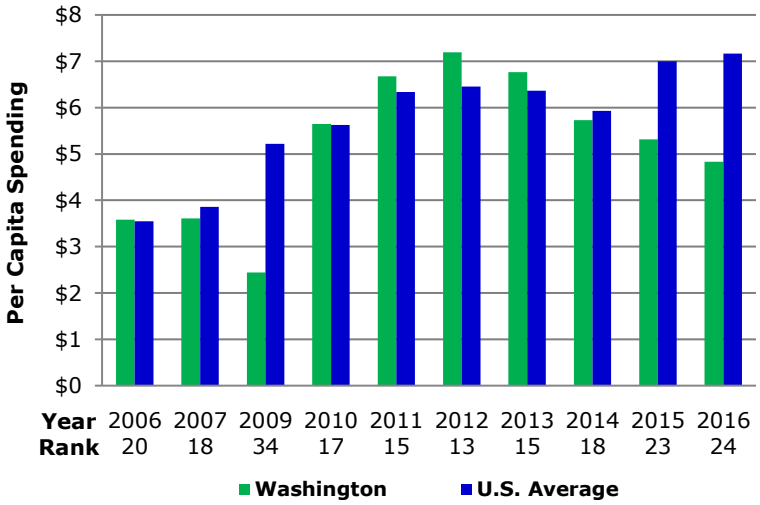
This report indicates the state in which the research and development activity took place regardless of the state of the sponsoring party. The state spending figures for industrial, university, state government, and total research and development spending can be divided by the state populations to derive per capita spending. The most recent year of state spending data available is 2016 for university R&D, 2015 for industry, and 2016 for state government.

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

In 2016, Washington's rank in university R&D spending improved to 16th in the nation. In 2016, Washington universities spent $226 per capita in R&D. Washington remained above the U.S. average of $220 for the sixth year in a row. The five year average for Washington State was $220.

As for industry R&D, Washington ranks 5th in the nation. Washington has kept this ranking for 3 years in a row. Washington's industry R&D for 2015 was $2,368 per capita, up from $2,228 per capita in 2014. The five year average for Washington State is $2,194, well above the 5 year average of $1,023.

Figure 1.10: State Government Research and Development



Source: The National Science Foundation; data through 2016

In 2016, the Washington state government spent $4.83 per capita for R&D. This places Washington at 24th in the nation, dropping one rank from the year before. Government spending in Washington on R&D has been lower than the U.S. average for 3 years. This year the U.S. average was $7.16. The 5 year average for Washington is $5.97, and the U.S. average is $6.58.

Patents Issued Per 100,000 Population

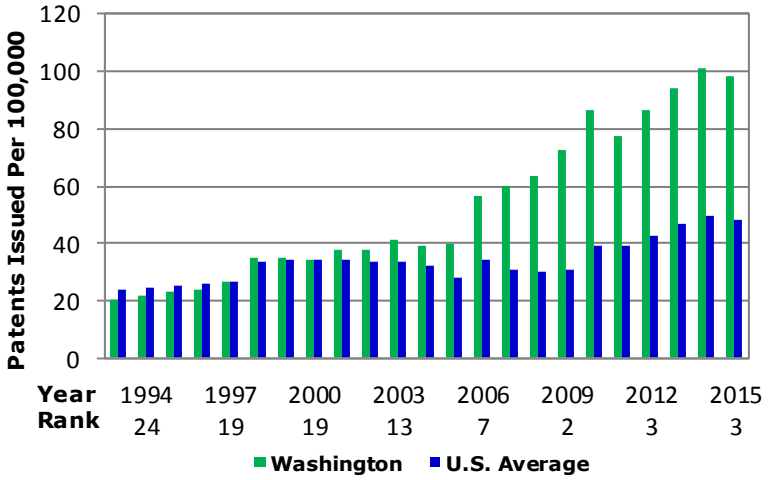
Patents are a good measure of actual innovation

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 actual innovation by private persons, universities, and companies.

Washington ranks 3rd in patents issued

In 2015, Washington had 98.2 patents issued per 100,000 residents. The state's patent issue rate is more than twice the national rate of 48.5, ranking the state 3rd in the nation. The two other states outperforming Washington are California (111.4) and Massachusetts (106.5). The state's 5-year average of 91.5 is also more than twice the national 5-year average of 45.3, 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 2015

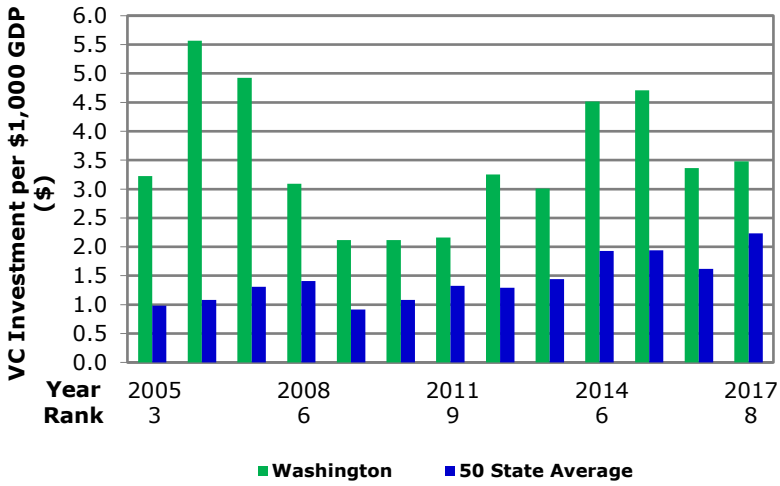
Venture Capital Investment

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 $3.48 in 2017, but Washington's rank fell to 8th in the nation. Even though Washington's ranking fell, $3.48 is still above the U.S. average of $2.23. In 2017, Washington's share of all venture capital activity in the U.S. was 2.07 percent, the 6th largest in the nation. Washington's five year average for venture capital investment per thousand GDP is $3.82, 6th in the nation.

Figure 1.12: Venture Capital Investment



Source: National Venture Capital Association Yearbook, data through 2017

Establishment Birth Rate

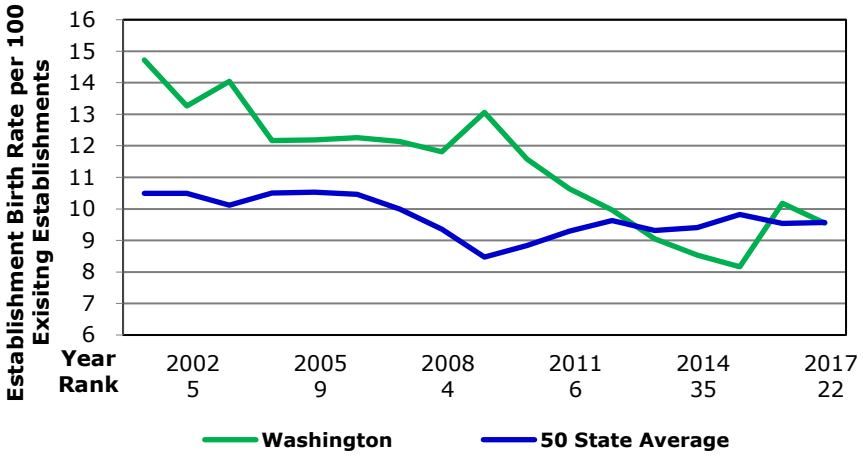
Washington had an establishment birth rate of 9.55 in 2017

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 22nd in establishment birth rate in 2017

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 and even 44th in 2015. This year, Washington's ranking dropped to 22nd in the nation. Washington's establishment birth rate per existing establishments was 9.55 in 2017, down from 10.17 in 2016. This is just below the U.S. average of 9.57. The five year average for Washington is 9.10, 20th 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 2017

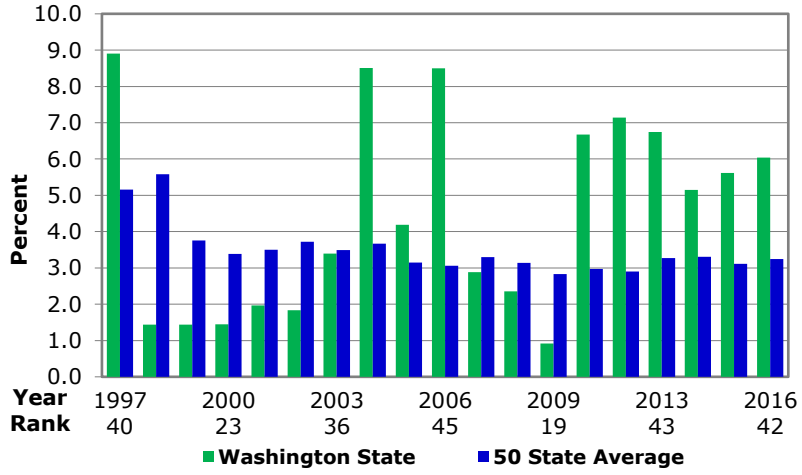
Infrastructure

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 2016

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 highways deteriorated in 2016 but its ranking stayed the same

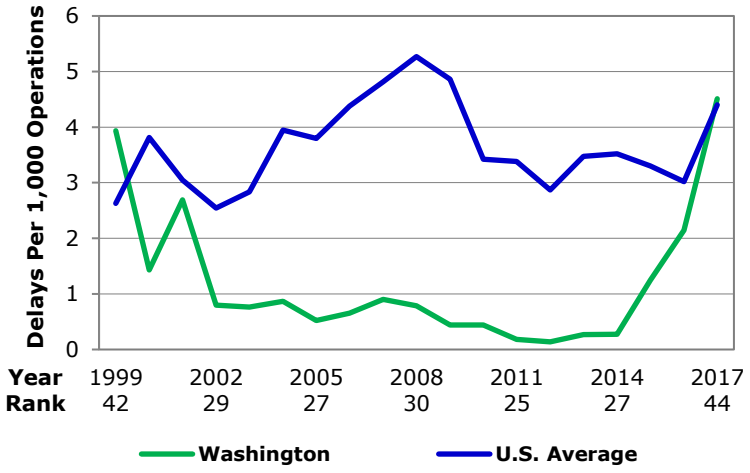
The condition of Washington's roads worsened in 2016, but its ranking stayed at 42nd in the nation. In 2016 6.0 percent of interstate miles were in poor condition, this is 1.9 times more than the U.S. average of 3.2 percent. In 2015, 5.6 percent of Washington's interstate miles were in poor condition, also above the U.S. average of 3.1 percent. The 5 year average is 6.1 percent, placing Washington 43rd in the nation.

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 2017

The number of delays in Washington was 4.5 per 1,000, more than double that of the year before.

In 2017, the number of delays per 1,000 operations was 4.5, over twice the number of 2.1 the year before. This dropped Washington's ranking from 39th place to 44th place. 4.5 is not far from the U.S. average of 4.4, but because 18 states had zero

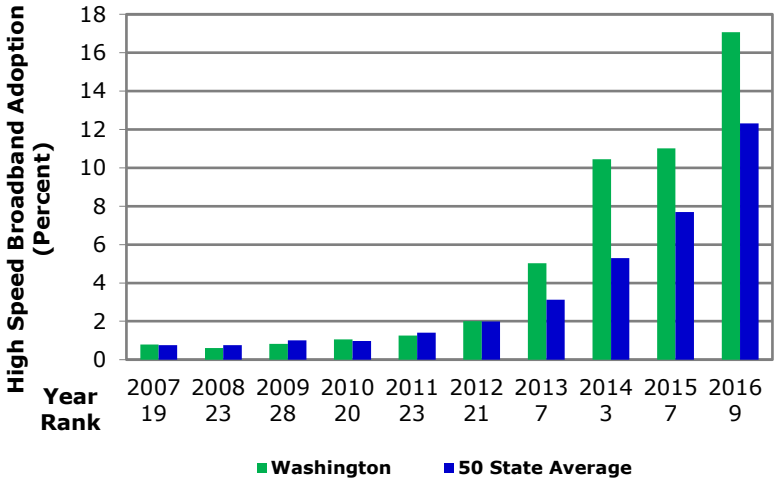
delays per 1,000 operations, Washington is near the bottom of the rankings. This is the first time since 1999 Washington has been above the U.S. average. Washington's five year average is 1.7, below the U.S. average of 3.5.

High Speed Broadband Adoption

In 2015 the FCC updated the definition of "high speed broadband" to 25 mbps downloads

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 high speed broadband is essential to staying economically competitive. Akamai publishes an annual State of the Internet report that includes information on all 50 states and their respective broadband speeds. In 2015 the FCC updated their definition of "high speed broadband" to 25 megabyte per second downloads (mbps). Akamai specifically reports the 25 mbps adoption rate for each state. This indicator measures what percent of a state's total broadband connections are faster than 25 mbps.

Figure 1.16: High Speed Broadband Adoption



Source: Akamai State of the Internet, 2017

In 2016 Washington ranked 9th in the nation in high speed broadband adoption

The "high speed broadband" adoption rate has increased across the nation. In 2016 the 50 state average increased from 7.7 percent to 12.31 percent while Washington's adoption rate increased from 11.02 percent to 17.07 percent. Washington's rank decreased from 7th to 9th in 2016, as other states invested more heavily in "high speed broadband". Since 2012 Washington has averaged an adoption rate of 9.12 percent, which gives the state a ranking of 6th best. The 50 state average over that period is 6.09 percent.

Unlinked Passenger Trips Per Capita

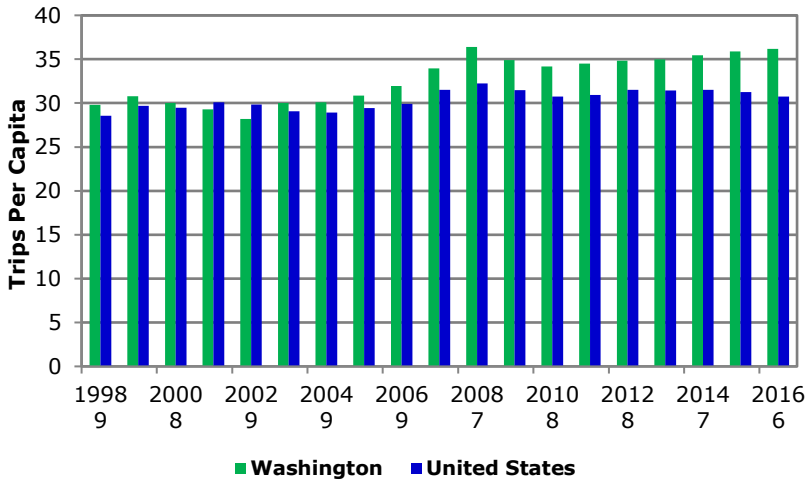
The FTA tracks public transit use

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 7th in public transit use

Washington's ranking improved to 6th in the nation in 2016. Per capita, Washington residents used public transit 36.2 times, which is higher than the U.S. average of 30.7 during the same period. For 16 years Washington has outperformed the U.S. average. Washington's 5 year average is 35.5 trips per capita. The U.S. five year average is 31.4.

Figure 1.17: Unlinked Passenger Trips Per Capita

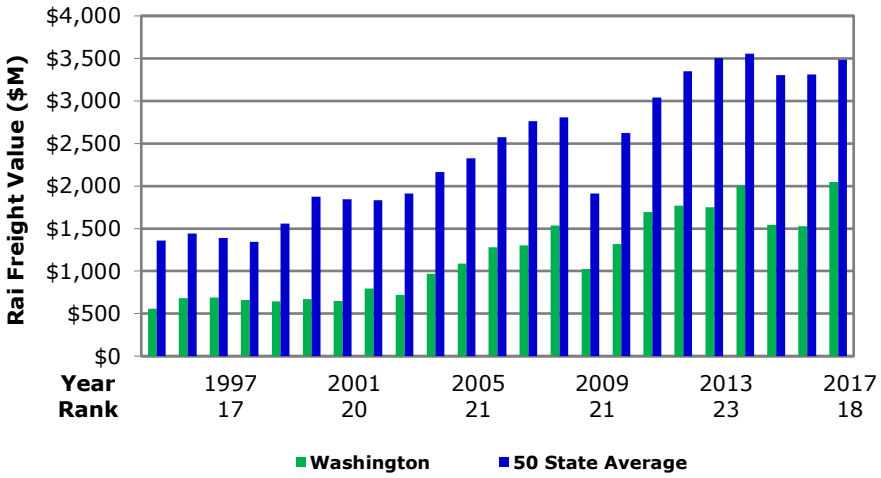


Source: Federal Transit Administration, National Transit Database, data through 2016

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 1.17: Rail Freight Value



Source: United States Department of Transportation, Bureau of Transportation Statistics, 2017

In 2017 Washington moved $2 billion in freight over railways

In 2016 Washington's railways moved $2.0 billion in freight while the 50 state average was $3.48 billion. Washington's rail freight value histroically ranks lower than the U.S. average. Washington's ranking improved from 21st in the nation to 18th. Washington's five year average rail freight value is $1.77 billion, and the U.S. five year average is $3.43 billion.

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

	2012	2013	2014	2015	2016	2012-16
Alabama	6.8	6.7	6.6	6.6	6.7	6.7
Alaska	5.6	5.8	5.4	5.1	4.9	5.4
Arizona	7.3	7.1	6.9	6.9	6.8	7.0
Arkansas	7.0	6.8	6.7	6.6	6.5	6.7
California	7.4	7.4	7.3	7.3	7.4	7.4
Colorado	6.9	6.7	6.5	6.3	6.4	6.6
Connecticut	4.5	4.4	4.3	4.2	4.2	4.3
Delaware	5.8	5.7	5.6	5.5	5.6	5.6
Florida	5.3	5.1	5.0	4.9	4.8	5.0
Georgia	5.7	5.5	5.4	5.4	5.4	5.5
Hawaii	5.5	5.4	5.1	5.0	4.8	5.2
Idaho	6.7	6.4	6.4	5.9	6.0	6.3
Illinois	5.7	5.5	5.4	5.1	5.0	5.3
Indiana	6.7	6.7	6.5	6.4	6.3	6.5
Iowa	7.4	7.1	7.1	7.1	7.1	7.2
Kansas	8.5	8.5	8.4	8.2	8.2	8.4
Kentucky	6.6	6.5	6.3	6.0	6.0	6.3
Louisiana	6.3	6.1	6.0	6.0	5.8	6.0
Maine	4.8	4.6	4.6	4.4	4.4	4.6
Maryland	6.8	6.6	6.6	6.5	6.6	6.6
Massachusetts	4.4	4.3	4.2	4.1	4.0	4.2
Michigan	7.1	6.9	6.7	6.5	6.4	6.7
Minnesota	6.6	6.4	6.2	6.1	6.0	6.3
Mississippi	7.1	6.9	6.7	6.9	6.8	6.9
Missouri	5.6	5.5	5.4	5.3	5.2	5.4
Montana	6.2	6.0	5.9	5.7	5.7	5.9
Nebraska	7.5	7.3	7.1	7.0	7.0	7.2
Nevada	4.9	4.8	4.9	4.7	4.7	4.8
New Hampshire	4.1	4.1	4.1	4.0	3.8	4.0
New Jersey	5.2	5.1	5.1	4.9	4.8	5.0
New Mexico	9.3	9.2	8.7	8.3	8.1	8.7
New York	4.7	4.7	4.7	4.6	4.5	4.6
North Carolina	6.2	6.1	5.9	5.8	5.7	6.0
North Dakota	9.0	8.7	8.5	8.3	8.2	8.5
Ohio	5.9	5.8	5.7	5.6	5.6	5.7
Oklahoma	6.8	6.4	6.2	6.1	6.0	6.3
Oregon	7.0	6.8	6.5	6.3	6.1	6.5
Pennsylvania	4.2	4.2	4.1	4.0	4.0	4.1
Rhode Island	5.2	5.1	5.1	4.9	4.9	5.0
South Carolina	5.7	5.6	5.5	5.3	5.2	5.5
South Dakota	7.0	7.0	6.9	6.8	6.8	6.9
Tennessee	4.7	4.6	4.4	4.4	4.3	4.5
Texas	7.1	7.0	6.9	6.9	6.9	6.9
Utah	8.7	8.4	8.2	8.2	8.2	8.3
Vermont	5.3	5.1	5.1	5.0	5.1	5.1
Virginia	6.5	6.3	6.2	6.1	6.0	6.2
Washington	**5.9**	**5.8**	**5.7**	**5.6**	**5.6**	**5.7**
West Virginia	6.3	6.2	6.0	5.9	5.8	6.0
Wisconsin	6.7	6.5	6.4	6.3	6.2	6.4
Wyoming	8.1	8.0	7.7	7.5	7.3	7.7
50 State Average	6.2	6.1	6.0	5.9	5.8	6.0
Washington's Rank	**31**	**32**	**30**	**30**	**31**	**31**

*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 2016

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

	2012	2013	2014	2015	2016	2012-16
Alabama	5.3	4.9	5.1	4.8	4.8	5.0
Alaska	3.0	3.1	2.7	2.6	2.2	2.7
Arizona	6.4	6.4	6.4	6.0	5.7	6.2
Arkansas	5.4	5.6	5.6	5.3	5.0	5.4
California	10.1	10.1	10.0	9.9	9.7	10.0
Colorado	4.0	3.7	4.1	3.7	3.4	3.8
Connecticut	4.2	4.5	4.2	4.2	4.1	4.2
Delaware	4.1	3.9	3.4	3.8	3.4	3.7
Florida	5.3	5.3	5.2	5.2	5.2	5.2
Georgia	5.6	5.6	5.4	5.0	4.9	5.3
Hawaii	4.3	3.9	4.0	4.1	3.6	4.0
Idaho	4.1	4.3	3.9	3.7	3.2	3.8
Illinois	5.6	5.5	5.2	5.3	5.0	5.3
Indiana	4.0	4.1	3.9	3.8	3.8	3.9
Iowa	3.2	3.1	3.1	3.2	3.2	3.2
Kansas	3.7	4.0	3.9	3.8	3.6	3.8
Kentucky	7.0	6.6	6.6	6.2	5.7	6.4
Louisiana	6.0	5.8	5.7	5.2	5.2	5.6
Maine	3.0	2.9	3.1	2.8	2.7	2.9
Maryland	4.4	4.1	4.1	4.2	4.0	4.2
Massachusetts	4.7	4.9	5.0	4.5	4.5	4.7
Michigan	3.2	3.3	3.2	3.0	3.0	3.1
Minnesota	3.1	3.1	3.0	3.0	3.0	3.0
Mississippi	5.7	6.3	5.8	5.8	4.8	5.7
Missouri	3.9	3.7	3.6	3.6	3.3	3.6
Montana	2.0	2.2	2.2	2.0	1.9	2.1
Nebraska	4.0	4.4	4.3	3.9	4.1	4.1
Nevada	6.0	6.0	6.1	6.4	6.1	6.1
New Hampshire	2.4	2.9	2.6	1.9	2.2	2.4
New Jersey	5.3	5.5	5.2	5.2	5.1	5.3
New Mexico	6.9	7.4	6.6	6.7	6.1	6.7
New York	6.7	6.8	6.7	6.6	6.3	6.6
North Carolina	5.8	5.4	5.0	5.0	4.6	5.2
North Dakota	4.0	4.1	3.3	3.7	2.8	3.6
Ohio	3.1	3.2	3.0	3.0	2.8	3.0
Oklahoma	4.6	4.4	4.2	4.3	4.0	4.3
Oregon	3.7	4.1	4.2	3.7	3.7	3.9
Pennsylvania	3.6	3.6	3.5	3.3	3.2	3.4
Rhode Island	6.4	6.1	5.7	5.5	5.2	5.8
South Carolina	5.2	5.0	4.5	4.4	4.4	4.7
South Dakota	4.3	3.5	3.4	3.4	3.2	3.6
Tennessee	5.7	5.6	5.4	5.3	4.8	5.4
Texas	9.2	9.1	9.0	8.9	8.6	9.0
Utah	3.0	2.9	3.0	2.9	2.9	2.9
Vermont	2.9	3.2	2.8	2.8	2.5	2.8
Virginia	5.0	4.7	4.8	4.5	4.3	4.7
Washington	**4.0**	**4.0**	**4.0**	**3.9**	**3.8**	**3.9**
West Virginia	5.6	5.4	5.0	4.5	4.4	5.0
Wisconsin	3.3	3.1	3.0	3.0	2.7	3.0
Wyoming	2.3	1.5	2.2	2.0	1.5	1.9
U.S. Average	5.8	5.8	5.6	5.5	5.6	5.7
Washington's Rank	**17**	**19**	**21**	**23**	**23**	**23**

Source: U.S. Department of Commerce, Bureau of the Census: Educational Attainment, 2016
* 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)*

	2012	2013	2014	2015	2016	2012-16
Alabama	82.6	83.1	83.7	84.3	84.8	83.7
Alaska	91.6	91.6	91.8	92.1	92.3	91.9
Arizona	85.4	85.7	85.9	86.0	86.2	85.8
Arkansas	83.3	83.7	84.3	84.8	85.2	84.3
California	81.0	81.2	81.5	81.8	82.1	81.5
Colorado	89.9	90.2	90.4	90.7	91.0	90.4
Connecticut	89.0	89.2	89.5	89.9	90.1	89.5
Delaware	87.7	87.7	88.0	88.4	88.8	88.1
Florida	85.8	86.1	86.5	86.9	87.2	86.5
Georgia	84.4	84.7	85.0	85.4	85.8	85.1
Hawaii	90.3	90.4	90.7	91.0	91.3	90.7
Idaho	88.6	88.8	89.1	89.5	90.0	89.2
Illinois	87.0	87.3	87.6	87.9	88.3	87.6
Indiana	87.0	87.2	87.6	87.8	88.1	87.5
Iowa	90.7	91.0	91.3	91.5	91.7	91.2
Kansas	89.7	89.8	90.0	90.2	90.3	90.0
Kentucky	82.4	83.0	83.5	84.2	84.6	83.5
Louisiana	82.2	82.6	82.8	83.4	83.8	83.0
Maine	90.6	91.1	91.3	91.6	91.9	91.3
Maryland	88.5	88.7	89.0	89.4	89.6	89.0
Massachusetts	89.1	89.4	89.5	89.8	90.1	89.6
Michigan	88.7	88.9	89.3	89.6	89.9	89.3
Minnesota	91.9	92.1	92.3	92.4	92.6	92.3
Mississippi	81.0	81.5	81.9	82.3	83.0	81.9
Missouri	87.2	87.6	88.0	88.4	88.8	88.0
Montana	91.9	92.1	92.4	92.8	92.9	92.4
Nebraska	90.4	90.5	90.5	90.7	90.7	90.6
Nevada	84.4	84.6	84.9	85.1	85.4	84.9
New Hampshire	91.4	91.8	92.0	92.3	92.6	92.0
New Jersey	87.9	88.1	88.4	88.6	88.9	88.4
New Mexico	83.4	83.6	84.0	84.2	84.6	84.0
New York	84.9	85.2	85.4	85.6	85.9	85.4
North Carolina	84.5	84.9	85.4	85.8	86.3	85.4
North Dakota	90.5	90.9	91.3	91.7	92.0	91.3
Ohio	88.2	88.5	88.8	89.1	89.5	88.8
Oklahoma	86.2	86.4	86.7	86.9	87.3	86.7
Oregon	89.2	89.4	89.5	89.8	90.0	89.6
Pennsylvania	88.3	88.7	89.0	89.2	89.5	88.9
Rhode Island	84.8	85.2	85.4	86.2	87.0	85.7
South Carolina	84.0	84.5	85.0	85.6	86.0	85.0
South Dakota	90.1	90.4	90.7	90.9	91.2	90.7
Tennessee	83.9	84.4	84.9	85.5	86.0	84.9
Texas	80.8	81.2	81.6	81.9	82.3	81.6
Utah	90.6	90.9	91.0	91.2	91.5	91.0
Vermont	91.3	91.4	91.6	91.8	91.9	91.6
Virginia	86.9	87.5	87.9	88.3	88.6	87.8
Washington	**90.0**	**90.0**	**90.2**	**90.4**	**90.6**	**90.2**
West Virginia	83.4	83.9	84.4	85.0	85.3	84.4
Wisconsin	90.2	90.4	90.8	91.0	91.4	90.8
Wyoming	92.1	92.4	92.3	92.3	92.4	92.3
U.S. Average	86.4	86.6	86.9	87.1	87.0	86.8
Washington's Rank	**15**	**16**	**16**	**16**	**16**	**16**

Source: U.S. Department of Commerce, Bureau of the Census: Educational Attainment in the US: 2016.
*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)*

	2012	2013	2014	2015	2016	2012-16
Alabama	23.3	23.5	23.5	24.2	24.7	23.84
Alaska	28.0	28.0	28.0	29.7	29.6	28.7
Arizona	27.3	27.4	27.6	27.7	28.9	27.8
Arkansas	21.0	20.6	21.4	21.8	22.4	21.4
California	30.9	31.0	31.7	32.3	32.9	31.8
Colorado	37.5	37.8	38.3	39.2	39.9	38.5
Connecticut	37.1	37.2	38.0	38.3	38.6	37.8
Delaware	29.5	29.8	30.6	30.9	31.0	30.4
Florida	26.8	27.2	27.3	28.4	28.6	27.7
Georgia	28.2	28.3	29.1	29.9	30.5	29.2
Hawaii	30.1	31.2	31.0	31.4	31.9	31.1
Idaho	25.5	26.2	25.0	26.0	27.6	26.1
Illinois	31.6	32.1	32.8	32.9	34.0	32.7
Indiana	23.4	23.8	24.7	24.9	25.6	24.5
Iowa	26.3	26.4	27.7	26.8	28.4	27.1
Kansas	30.4	31.1	31.5	31.7	32.8	31.5
Kentucky	21.8	22.6	22.2	23.3	23.4	22.7
Louisiana	22.0	22.5	22.9	23.2	23.4	22.8
Maine	28.0	28.2	29.4	30.1	30.1	29.2
Maryland	36.9	37.4	38.2	38.8	39.3	38.1
Massachusetts	39.3	40.3	41.2	41.5	42.7	41.0
Michigan	26.0	26.9	27.4	27.8	28.3	27.3
Minnesota	33.2	33.5	34.3	34.7	34.8	34.1
Mississippi	20.7	20.4	21.1	20.8	21.8	21.0
Missouri	26.4	27.0	27.5	27.8	28.5	27.4
Montana	29.4	29.0	29.3	30.6	31.0	29.9
Nebraska	29.0	29.4	29.5	30.2	31.4	29.9
Nevada	22.4	22.5	23.1	23.6	23.5	23.0
New Hampshire	34.6	34.6	35.0	35.7	36.6	35.3
New Jersey	36.2	36.6	37.4	37.6	38.6	37.3
New Mexico	26.1	26.4	26.4	26.5	27.2	26.5
New York	33.4	34.1	34.5	35.0	35.7	34.5
North Carolina	27.4	28.4	28.7	29.4	30.4	28.9
North Dakota	27.9	27.1	27.4	29.1	29.6	28.2
Ohio	25.2	26.1	26.6	26.8	27.5	26.4
Oklahoma	23.8	23.8	24.2	24.6	25.2	24.3
Oregon	29.9	30.7	30.8	32.2	32.7	31.3
Pennsylvania	27.8	28.7	29.0	29.7	30.8	29.2
Rhode Island	31.4	32.4	30.4	32.7	34.1	32.2
South Carolina	25.1	26.1	26.3	26.8	27.2	26.3
South Dakota	26.3	26.6	27.8	27.5	28.9	27.4
Tennessee	24.3	24.8	25.3	25.7	26.1	25.2
Texas	26.7	27.5	27.8	28.4	28.9	27.9
Utah	30.7	31.3	31.1	31.8	32.6	31.5
Vermont	35.8	35.7	34.9	36.9	36.4	35.9
Virginia	35.5	36.1	36.7	37.0	38.1	36.7
Washington	**31.7**	**32.7**	**33.1**	**34.2**	**35.1**	**33.4**
West Virginia	18.6	18.9	19.2	19.6	20.8	19.4
Wisconsin	27.1	27.7	28.4	28.4	29.5	28.2
Wyoming	24.7	26.6	26.6	26.2	27.1	26.2
U.S. Average	28.4	28.9	29.2	29.8	30.5	29.4
Washington's Rank	**11**	**11**	**11**	**11**	**10**	**11**

Source: U.S. Department of Commerce, Bureau of the Census: Educational Attainment in the United States, 2016
* 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+

	2012	2013	2014	2015	2016	2011-15
Alabama	17.6	17.3	17.9	18.5	19.1	18.1
Alaska	9.2	9.5	8.9	7.4	8.7	8.7
Arizona	18.0	18.0	17.4	18.7	16.8	17.8
Arkansas	8.7	9.9	9.3	9.8	10.9	9.7
California	21.0	21.6	20.9	20.2	20.3	20.8
Colorado	20.5	22.5	22.9	23.9	25.0	23.0
Connecticut	25.0	25.7	26.0	27.6	26.9	26.2
Delaware	30.1	25.8	26.7	30.3	37.4	30.1
Florida	14.1	14.1	14.4	14.6	13.9	14.2
Georgia	18.4	18.1	18.8	19.2	18.8	18.7
Hawaii	17.8	20.9	17.6	21.4	17.9	19.1
Idaho	8.5	11.8	11.1	9.4	8.7	9.9
Illinois	24.4	25.8	24.2	25.0	24.6	24.8
Indiana	26.1	27.9	28.1	31.4	30.0	28.7
Iowa	32.5	33.0	30.8	28.6	29.6	30.9
Kansas	21.5	23.6	22.2	26.3	23.4	23.4
Kentucky	6.3	5.2	6.0	14.7	14.0	9.2
Louisiana	18.9	18.7	17.4	17.7	18.4	18.2
Maine	5.5	4.6	7.1	6.7	7.0	6.2
Maryland	28.2	30.4	27.9	30.1	27.3	28.8
Massachusetts	50.6	52.0	52.7	52.2	53.3	52.2
Michigan	12.8	12.8	14.4	25.5	24.6	18.0
Minnesota	27.9	29.7	32.5	31.4	34.6	31.2
Mississippi	20.4	19.8	18.6	19.7	19.8	19.6
Missouri	18.3	18.6	19.1	20.9	19.5	19.3
Montana	11.7	12.5	13.4	15.7	14.5	13.6
Nebraska	20.1	25.9	25.9	26.1	27.1	25.0
Nevada	9.7	9.9	9.1	9.5	10.1	9.7
New Hampshire	13.0	15.3	16.6	15.3	14.2	14.9
New Jersey	14.6	15.1	16.7	16.2	15.3	15.6
New Mexico	19.3	20.7	21.3	21.8	19.2	20.5
New York	26.2	27.2	27.9	26.3	27.0	26.9
North Carolina	20.8	22.2	22.1	21.9	23.1	22.0
North Dakota	25.1	25.0	27.8	30.0	31.8	28.0
Ohio	20.3	20.5	21.6	22.2	22.8	21.5
Oklahoma	16.3	16.8	17.7	17.5	18.2	17.3
Oregon	15.6	14.9	14.1	15.4	14.1	14.8
Pennsylvania	25.0	25.0	25.7	26.0	26.9	25.7
Rhode Island	39.0	36.8	39.5	37.4	38.3	38.2
South Carolina	13.4	13.3	14.4	15.4	14.1	14.1
South Dakota	12.2	11.9	15.7	17.0	17.3	14.8
Tennessee	16.4	16.5	17.6	17.7	17.9	17.2
Texas	15.6	15.2	16.4	20.1	19.3	17.3
Utah	25.2	26.1	24.9	27.1	25.2	25.7
Vermont	12.3	14.5	14.5	14.6	14.8	14.1
Virginia	22.3	24.4	24.1	23.5	23.3	23.5
Washington	**15.0**	**17.4**	**17.1**	**17.2**	**16.4**	**16.6**
West Virginia	13.9	13.3	13.1	14.8	16.7	14.3
Wisconsin	24.5	23.0	24.9	25.0	24.6	24.4
Wyoming	14.1	14.8	23.1	19.0	18.1	17.8
U.S. Average	20.1	20.7	20.9	21.9	21.7	21.0
Washington Rank	**34**	**29**	**33**	**35**	**37**	**35**

Source: National Science Foundation, National Center for Science and Engineering Statistics, Survey of Earned Doctorates, 2016.

Table 1.6
Innovation Drivers

Migration Rate

(Percent)*

	2013	2014	2015	2016	2017	2013-17
Alabama	0.1	0.1	0.1	0.1	0.2	0.1
Alaska	-0.2	-1.0	-0.8	-0.4	-1.1	-0.7
Arizona	0.6	0.8	0.9	1.1	1.1	0.9
Arkansas	0.0	0.0	0.1	0.2	0.3	0.1
California	0.2	0.3	0.2	0.1	0.1	0.2
Colorado	0.9	0.9	1.3	1.1	0.8	1.0
Connecticut	0.0	-0.2	-0.3	-0.3	-0.1	-0.2
Delaware	0.6	0.7	0.7	0.7	0.8	0.7
Florida	1.1	1.4	1.7	1.8	1.5	1.5
Georgia	0.2	0.5	0.6	0.6	0.6	0.5
Hawaii	0.5	0.1	0.1	-0.3	-0.5	0.0
Idaho	0.3	0.6	0.5	1.2	1.5	0.9
Illinois	-0.3	-0.5	-0.6	-0.6	-0.6	-0.5
Indiana	0.1	0.0	-0.1	0.0	0.2	0.1
Iowa	0.2	0.2	0.1	0.1	0.1	0.1
Kansas	-0.2	-0.2	-0.2	-0.4	-0.3	-0.3
Kentucky	0.1	0.0	0.0	0.1	0.2	0.1
Louisiana	0.1	0.0	0.0	-0.1	-0.4	-0.1
Maine	0.0	0.1	0.0	0.3	0.5	0.2
Maryland	0.2	0.2	0.1	0.0	0.1	0.1
Massachusetts	0.5	0.4	0.3	0.2	0.3	0.4
Michigan	-0.1	-0.1	-0.1	0.0	0.1	0.0
Minnesota	0.2	0.1	0.1	0.3	0.4	0.2
Mississippi	-0.1	-0.2	-0.3	-0.2	-0.3	-0.2
Missouri	0.0	0.0	0.0	0.0	0.1	0.0
Montana	0.6	0.5	0.5	0.7	0.9	0.6
Nebraska	0.1	0.1	0.1	0.2	0.1	0.1
Nevada	0.7	1.1	1.3	1.5	1.5	1.2
New Hampshire	0.0	0.4	0.1	0.3	0.5	0.3
New Jersey	0.0	0.0	-0.2	-0.1	0.0	-0.1
New Mexico	-0.4	-0.5	-0.4	-0.2	-0.2	-0.4
New York	0.0	-0.1	-0.2	-0.3	-0.3	-0.2
North Carolina	0.6	0.5	0.7	0.8	0.8	0.7
North Dakota	2.4	1.5	1.5	-0.6	-0.7	0.8
Ohio	0.0	0.0	-0.1	0.0	0.1	0.0
Oklahoma	0.5	0.3	0.4	0.1	-0.1	0.2
Oregon	0.4	0.7	1.1	1.4	1.1	1.0
Pennsylvania	0.0	0.0	-0.1	-0.1	0.1	0.0
Rhode Island	-0.1	0.1	0.0	0.1	0.1	0.0
South Carolina	0.7	1.0	1.1	1.2	1.1	1.0
South Dakota	0.6	0.2	0.0	0.3	0.4	0.3
Tennessee	0.4	0.5	0.5	0.6	0.8	0.6
Texas	0.7	1.0	1.0	0.9	0.7	0.9
Utah	0.4	0.1	0.4	0.8	0.7	0.5
Vermont	0.0	-0.1	-0.2	-0.2	0.0	-0.1
Virginia	0.4	0.2	0.1	0.1	0.2	0.2
Washington	**0.5**	**0.7**	**1.0**	**1.3**	**1.2**	**0.9**
West Virginia	-0.1	-0.2	-0.3	-0.4	-0.5	-0.3
Wisconsin	0.0	-0.1	-0.1	-0.1	0.1	0.0
Wyoming	0.5	-0.4	0.0	-0.7	-1.4	-0.4
U.S. Average*	0.3	0.3	0.4	0.4	0.3	0.3
Washington's Rank	**12**	**10**	**8**	**4**	**4**	**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

	2012	2013	2014	2015	2016	2012-16
Alabama	0.58	0.62	0.72	0.72	0.67	0.66
Alaska	0.65	0.76	0.84	0.91	0.88	0.81
Arizona	1.78	2.08	1.81	1.88	2.07	1.93
Arkansas	1.07	1.38	1.30	1.47	1.75	1.40
California	3.98	4.26	4.86	5.28	5.77	4.83
Colorado	1.26	1.49	1.67	1.74	1.88	1.61
Connecticut	3.93	4.00	3.86	3.96	3.82	3.91
Delaware	2.48	3.00	3.52	3.81	3.76	3.32
Florida	2.69	2.67	2.52	2.42	2.84	2.63
Georgia	1.87	2.20	2.43	2.52	2.55	2.31
Hawaii	1.16	1.22	1.21	1.13	2.76	1.50
Idaho	0.59	0.62	0.74	0.66	0.66	0.65
Illinois	2.79	3.20	3.47	3.72	3.62	3.36
Indiana	1.11	1.19	1.20	1.35	1.32	1.23
Iowa	0.88	0.88	1.09	1.08	1.01	0.99
Kansas	1.01	1.04	1.19	1.33	1.40	1.19
Kentucky	0.78	0.84	0.83	0.87	0.86	0.84
Louisiana	0.64	0.63	0.70	0.72	0.77	0.69
Maine	1.00	0.81	0.86	0.97	0.88	0.91
Maryland	2.29	2.25	2.21	2.12	2.15	2.20
Massachusetts	5.18	5.35	5.49	5.82	6.04	5.58
Michigan	6.47	4.66	2.73	2.70	2.87	3.89
Minnesota	1.78	1.86	1.97	2.04	1.97	1.92
Mississippi	0.31	0.32	0.47	0.43	0.46	0.40
Missouri	0.96	0.97	1.04	1.03	1.05	1.01
Montana	0.26	0.31	0.27	0.30	0.42	0.31
Nebraska	0.77	1.76	3.38	3.81	4.51	2.85
Nevada	0.65	0.75	0.82	0.78	1.83	0.97
New Hampshire	1.79	1.67	1.79	1.93	1.87	1.81
New Jersey	5.88	6.35	6.69	7.22	7.53	6.73
New Mexico	0.91	0.88	0.70	0.65	0.91	0.81
New York	7.23	6.82	6.74	6.59	6.70	6.82
North Carolina	1.48	1.77	1.87	1.95	2.06	1.83
North Dakota	0.88	0.94	0.92	0.82	0.93	0.90
Ohio	1.48	1.55	1.59	1.68	1.66	1.59
Oklahoma	0.58	0.58	0.75	0.70	0.63	0.65
Oregon	1.50	1.74	1.78	1.88	1.85	1.75
Pennsylvania	1.70	1.76	1.91	1.92	1.96	1.85
Rhode Island	1.70	2.14	2.35	2.55	2.60	2.27
South Carolina	0.69	0.71	0.73	0.72	0.73	0.72
South Dakota	0.49	0.48	0.57	0.59	0.56	0.54
Tennessee	0.86	1.05	1.12	1.14	1.13	1.06
Texas	3.38	3.41	3.16	3.31	3.38	3.33
Utah	0.97	1.05	1.14	1.10	1.12	1.08
Vermont	3.42	2.94	1.76	1.42	1.38	2.19
Virginia	2.42	2.55	2.60	2.76	2.80	2.63
Washington	**6.51**	**6.21**	**5.76**	**5.47**	**5.67**	**5.92**
West Virginia	0.42	0.38	0.39	0.44	0.42	0.41
Wisconsin	1.09	1.13	1.26	1.35	1.37	1.24
Wyoming	0.37	0.38	0.40	0.42	0.35	0.39
50 State Average	1.89	1.95	1.98	2.04	2.16	2.01
Washington's Rank	**2**	**3**	**3**	**4**	**5**	**3**

Source: Department of Homeland Security, 2018

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

	2012	2013	2014	2015	2016	2012-16
Alabama	173	174	168	186	195	179
Alaska	249	250	237	221	226	237
Arizona	159	161	156	162	168	161
Arkansas	98	100	96	99	100	99
California	221	218	217	222	226	221
Colorado	258	238	231	234	249	242
Connecticut	263	294	295	304	328	297
Delaware	203	213	207	203	207	207
Florida	113	111	114	118	122	116
Georgia	190	196	193	201	211	198
Hawaii	241	244	236	233	223	235
Idaho	92	89	88	89	92	90
Illinois	183	194	181	186	187	186
Indiana	200	203	199	200	213	203
Iowa	234	231	249	243	260	243
Kansas	183	189	189	193	192	189
Kentucky	134	125	121	121	125	125
Louisiana	152	145	143	142	146	146
Maine	90	79	96	81	75	84
Maryland	570	579	598	624	631	600
Massachusetts	483	526	518	541	556	525
Michigan	224	229	226	235	249	233
Minnesota	161	166	169	169	174	168
Mississippi	160	139	137	137	152	145
Missouri	182	178	173	177	184	179
Montana	196	184	178	177	188	184
Nebraska	236	238	242	245	252	243
Nevada	56	55	54	55	65	57
New Hampshire	277	268	275	269	285	275
New Jersey	125	132	126	123	129	127
New Mexico	192	194	198	188	180	190
New York	273	280	285	288	307	287
North Carolina	275	278	283	280	289	281
North Dakota	307	303	301	289	300	300
Ohio	184	187	186	185	189	186
Oklahoma	115	109	108	107	125	113
Oregon	186	180	178	179	186	182
Pennsylvania	254	263	260	262	309	270
Rhode Island	471	455	424	429	438	443
South Carolina	135	136	136	136	139	136
South Dakota	155	139	124	121	124	133
Tennessee	159	159	173	163	164	164
Texas	178	182	182	185	188	183
Utah	218	238	236	246	188	225
Vermont	192	193	183	192	194	191
Virginia	168	172	166	169	174	170
Washington	**214**	**224**	**218**	**217**	**226**	**220**
West Virginia	109	106	106	108	109	108
Wisconsin	259	247	245	239	253	249
Wyoming	114	112	88	97	192	121
U.S. average	208	210	209	212	220	212
Washington's Rank	**19**	**18**	**18**	**19**	**16**	**19**

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

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

	2011	2012	2013	2014	2015	2011-15
Alabama	392	267	324	405	322	342
Alaska	116	53	62	77	89	80
Arizona	763	758	787	820	811	788
Arkansas	117	103	97	107	101	105
California	1,992	2,149	2,331	2,545	2,766	2,356
Colorado	842	792	859	852	802	829
Connecticut	2,089	2,041	2,223	2,526	2,374	2,251
Delaware	2,310	2,634	2,497	2,696	2,840	2,595
Florida	314	269	296	291	287	291
Georgia	391	391	403	460	452	419
Hawaii	183	135	152	138	130	148
Idaho	740	677	769	888	942	803
Illinois	936	1,010	1,016	960	988	982
Indiana	945	925	987	895	946	939
Iowa	755	573	664	676	814	697
Kansas	526	718	671	667	732	663
Kentucky	293	245	291	263	292	277
Louisiana	100	79	77	83	86	85
Maine	222	207	275	281	224	242
Maryland	873	684	804	858	856	815
Massachusetts	2,378	2,626	2,592	3,123	3,162	2,776
Michigan	1,383	1,508	1,609	1,722	1,728	1,590
Minnesota	1,155	1,156	1,221	1,279	1,244	1,211
Mississippi	79	92	71	90	72	81
Missouri	NA	1,159	1,188	1,109	1,001	1,114
Montana	136	105	91	201	219	150
Nebraska	345	312	336	314	305	322
Nevada	235	230	188	223	132	202
New Hampshire	1,569	1,406	1,546	1,536	1,452	1,502
New Jersey	1,575	1,780	1,573	1,537	1,575	1,608
New Mexico	227	214	249	240	241	234
New York	618	598	610	699	773	660
North Carolina	641	641	821	814	854	754
North Dakota	381	317	317	367	280	332
Ohio	606	672	702	772	779	706
Oklahoma	160	121	131	157	169	148
Oregon	1,198	1,324	1,438	1,624	1,583	1,433
Pennsylvania	763	730	842	846	809	798
Rhode Island	515	427	542	514	711	542
South Carolina	299	342	213	226	263	269
South Dakota	165	135	195	159	163	163
Tennessee	224	223	219	243	238	229
Texas	597	581	587	607	632	601
Utah	866	748	1,016	956	1,097	936
Vermont	597	745	649	483	396	574
Virginia	686	581	538	600	536	588
Washington	**2,135**	**2,103**	**2,134**	**2,228**	**2,368**	**2,194**
West Virginia	133	164	165	151	109	145
Wisconsin	710	723	737	745	812	745
Wyoming	81	52	48	101	302	117
U.S. average	946	965	1022	1072	1111	1,023
Washington's Rank	**3**	**4**	**5**	**5**	**5**	**5**

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

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

	2012	2013	2014	2015	2016	2012-16
Alabama	3.60	2.75	3.83	5.05	5.10	4.07
Alaska	7.48	9.08	16.33	15.26	13.58	12.35
Arizona	3.49	4.20	2.81	2.20	2.27	2.99
Arkansas	5.26	5.59	5.06	5.59	5.77	5.45
California	10.56	9.05	9.20	14.58	14.61	11.60
Colorado	2.88	2.75	2.95	3.00	3.01	2.92
Connecticut	11.12	11.39	13.17	15.53	13.79	13.00
Delaware	5.06	5.11	2.40	2.33	2.83	3.55
Florida	7.07	6.06	7.89	9.45	7.55	7.61
Georgia	1.29	1.27	1.17	0.99	1.27	1.20
Hawaii	8.00	9.30	9.26	8.08	12.62	9.45
Idaho	7.39	8.03	7.89	7.84	8.63	7.96
Illinois	1.39	1.40	1.94	2.40	1.32	1.69
Indiana	1.17	1.55	3.58	1.51	1.96	1.95
Iowa	5.25	6.27	3.33	3.62	3.93	4.48
Kansas	2.14	1.97	1.84	1.88	2.20	2.01
Kentucky	4.54	4.49	3.30	5.83	6.63	4.96
Louisiana	3.94	3.40	4.04	6.89	5.82	4.82
Maine	5.34	4.60	5.16	9.50	8.59	6.64
Maryland	3.72	4.97	5.02	4.14	4.39	4.45
Massachusetts	0.59	0.68	2.70	3.34	3.43	2.15
Michigan	1.27	1.30	1.24	1.28	1.72	1.36
Minnesota	2.14	2.74	3.55	3.91	4.14	3.30
Mississippi	2.10	1.63	0.44	0.26	0.78	1.04
Missouri	2.17	2.16	2.49	2.75	2.42	2.40
Montana	6.82	6.49	10.22	10.08	17.32	10.19
Nebraska	3.43	3.90	3.52	2.89	4.01	3.55
Nevada	0.42	0.59	1.21	1.08	1.94	1.05
New Hampshire	1.70	1.35	1.09	1.21	1.14	1.30
New Jersey	3.36	3.86	3.40	3.77	3.40	3.56
New Mexico	0.86	0.97	2.00	1.96	2.29	1.62
New York	19.48	19.39	19.07	18.70	20.41	19.41
North Carolina	3.33	3.11	2.27	3.44	3.66	3.16
North Dakota	8.60	10.19	14.60	12.73	11.21	11.47
Ohio	13.28	16.28	8.18	8.13	8.55	10.88
Oklahoma	6.06	7.33	7.86	7.67	8.53	7.49
Oregon	5.65	5.89	7.49	7.96	6.08	6.61
Pennsylvania	6.31	5.20	2.77	5.87	5.72	5.17
Rhode Island	1.93	1.56	3.06	2.46	3.19	2.44
South Carolina	15.36	10.02	4.62	5.60	6.15	8.35
South Dakota	4.14	4.35	5.97	4.93	5.24	4.92
Tennessee	0.67	0.53	0.67	0.58	1.06	0.70
Texas	5.64	6.99	6.02	6.74	9.14	6.91
Utah	16.60	18.50	12.41	12.79	10.34	14.13
Vermont	2.64	2.92	3.26	3.52	1.67	2.80
Virginia	4.07	4.36	4.62	5.22	3.99	4.45
Washington	**7.19**	**6.77**	**5.73**	**5.31**	**4.83**	**5.97**
West Virginia	18.10	10.27	6.07	5.89	4.50	8.97
Wisconsin	3.12	3.70	2.55	2.52	2.33	2.84
Wyoming	11.93	11.16	11.05	8.80	7.24	10.04
U.S. Average	6.45	6.36	5.93	7.00	7.16	6.58
Washington's Rank	**13**	**15**	**18**	**23**	**24**	**19**

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

Table 1.11
Innovation Drivers
Patents Issued
Per 100,000 Residents

	2011	2012	2013	2014	2015	2011-15
Alabama	8.7	9.9	11.9	11.5	10.7	10.5
Alaska	4.4	6.3	7.5	6.9	6.2	6.3
Arizona	34.8	36.2	36.6	39.7	40.1	37.5
Arkansas	6.4	8.1	7.7	8.7	10.3	8.2
California	81.6	91.1	101.9	112.6	111.4	99.7
Colorado	46.8	52.9	60.3	66.4	63.6	58.0
Connecticut	59.1	63.9	66.1	69.6	65.9	64.9
Delaware	50.3	52.9	51.5	49.8	39.7	48.9
Florida	20.1	23.0	24.3	25.2	24.2	23.4
Georgia	22.5	25.2	28.6	29.5	28.1	26.8
Hawaii	9.3	9.4	10.4	11.3	11.6	10.4
Idaho	68.7	61.3	63.8	63.9	54.9	62.5
Illinois	35.7	39.4	41.6	46.0	45.6	41.7
Indiana	25.1	30.0	33.0	34.3	34.4	31.4
Iowa	27.9	29.7	32.2	34.0	34.5	31.7
Kansas	28.0	38.1	37.6	35.7	34.4	34.8
Kentucky	12.6	14.1	14.2	16.2	16.2	14.7
Louisiana	8.0	9.7	9.5	10.5	9.5	9.4
Maine	15.2	16.7	18.3	16.7	17.0	16.8
Maryland	28.1	29.1	31.8	33.6	32.7	31.1
Massachusetts	83.6	91.9	100.9	104.8	106.5	97.5
Michigan	44.5	50.5	57.0	58.7	62.3	54.6
Minnesotta	79.0	79.5	88.3	93.1	88.4	85.7
Mississippi	5.8	5.4	6.0	5.9	5.8	5.8
Missouri	16.7	19.3	21.5	23.4	20.6	20.3
Montana	11.4	13.2	12.5	13.6	16.3	13.4
Nebraska	13.4	18.1	18.2	21.1	17.8	17.7
Nevada	24.8	32.0	35.9	34.1	27.3	30.8
New Hampshire	61.1	59.9	67.7	71.7	69.4	66.0
New Jersey	48.4	52.5	59.0	61.6	56.1	55.5
New Mexico	19.8	21.3	22.6	21.3	21.8	21.4
New York	40.2	43.6	47.5	49.5	47.4	45.7
North Carolina	29.9	33.4	35.1	37.3	36.4	34.4
North Dakota	13.9	14.0	18.1	16.2	16.8	15.8
Ohio	33.8	35.6	37.1	37.8	37.0	36.3
Oklahoma	14.0	13.6	15.7	16.2	15.3	14.9
Oregon	61.3	63.1	67.8	73.5	69.4	67.0
Pennsylvania	28.7	30.5	34.1	35.0	33.0	32.3
Rhode Island	33.4	39.4	38.9	42.4	37.2	38.3
South Carolina	17.0	20.7	20.4	20.7	21.6	20.1
South Dakota	12.9	15.5	16.1	15.0	14.9	14.9
Tennessee	16.9	16.5	17.1	18.0	17.1	17.1
Texas	31.4	34.2	37.1	39.6	38.4	36.1
Utah	43.1	46.5	48.7	51.8	53.2	48.7
Vermont	85.5	80.8	87.9	97.3	75.1	85.3
Virginia	21.5	22.2	24.6	26.2	26.5	24.2
Washington	**77.1**	**86.8**	**94.2**	**101.2**	**98.2**	**91.5**
West Virginia	5.9	7.6	8.3	7.4	7.4	7.3
Wisconsin	37.7	40.0	43.6	46.0	44.5	42.4
Wyoming	13.0	21.7	23.0	22.4	19.5	19.9
U.S. Average	38.9	42.7	46.7	49.8	48.5	45.3
Washington's Rank	**5**	**3**	**3**	**3**	**3**	**3**

Source: U.S. Patent and Trademark Office, U.S. Census Bureau, 2015

Table 1.12
Innovation Drivers
Venture Capital Investment
Dollars per Thousand GDP

	2013	2014	2015	2016	2017	2013-17
Alabama	0.49	0.21	0.26	0.24	0.37	0.31
Alaska	0.02	1.60	0.04	0.05	0.04	0.35
Arizona	1.55	1.45	1.08	0.98	0.76	1.16
Arkansas	1.05	0.27	0.21	0.31	0.26	0.42
California	9.64	15.58	16.93	14.62	15.79	14.51
Colorado	2.47	3.89	4.16	2.82	3.56	3.38
Connecticut	1.61	2.83	1.89	1.57	2.06	1.99
Delaware	3.33	6.25	2.58	1.26	1.39	2.96
Florida	1.46	1.51	1.13	1.81	1.57	1.50
Georgia	1.70	1.45	2.09	1.46	2.16	1.77
Hawaii	0.30	0.34	0.13	0.37	0.26	0.28
Idaho	0.38	0.37	1.27	0.24	17.08	3.87
Illinois	0.97	1.99	1.76	1.62	2.37	1.74
Indiana	0.25	0.77	0.51	0.50	0.46	0.50
Iowa	0.32	0.48	0.24	0.42	0.32	0.36
Kansas	0.38	0.44	0.97	0.15	0.45	0.48
Kentucky	0.16	0.34	0.27	0.47	0.43	0.33
Louisiana	0.13	0.06	0.16	0.09	0.40	0.17
Maine	0.97	0.58	1.41	0.41	4.02	1.48
Maryland	1.70	1.27	2.11	1.37	1.68	1.63
Massachusetts	10.07	11.41	16.58	12.01	17.01	13.42
Michigan	0.60	0.77	1.06	0.52	0.66	0.72
Minnesota	1.60	1.65	1.82	1.42	1.61	1.62
Mississippi	0.04	0.04	0.10	0.06	0.01	0.05
Missouri	0.73	1.22	1.00	1.00	0.83	0.95
Montana	0.29	1.41	0.88	0.99	1.72	1.06
Nebraska	0.17	0.37	1.15	0.15	0.69	0.51
Nevada	0.80	1.20	0.62	1.14	0.78	0.91
New Hampshire	1.80	2.16	3.15	1.73	1.01	1.97
New Jersey	0.89	1.18	1.97	0.89	1.32	1.25
New Mexico	0.77	0.45	1.28	0.34	1.03	0.78
New York	3.11	5.16	5.90	4.95	7.93	5.41
North Carolina	1.29	1.13	2.73	1.48	1.67	1.66
North Dakota	1.14	0.09	0.02	0.21	0.18	0.33
Ohio	0.79	0.81	0.83	0.58	0.80	0.76
Oklahoma	0.08	0.19	0.24	0.04	0.11	0.13
Oregon	1.06	1.36	1.30	1.35	1.52	1.32
Pennsylvania	0.82	1.92	1.37	1.50	1.20	1.36
Rhode Island	2.40	1.23	0.40	0.72	1.38	1.23
South Carolina	0.37	0.83	0.32	0.25	0.38	0.43
South Dakota	0.31	0.16	0.54	1.85	0.11	0.59
Tennessee	1.20	1.14	1.07	1.15	0.77	1.07
Texas	1.51	1.63	1.57	1.23	1.07	1.40
Utah	3.14	7.31	4.48	7.48	6.34	5.75
Vermont	1.90	2.97	0.63	1.66	0.30	1.49
Virginia	1.35	1.30	1.07	1.15	1.54	1.28
Washington	**3.01**	**4.51**	**4.71**	**3.36**	**3.48**	**3.82**
West Virginia	0.38	0.08	0.03	0.13	0.01	0.13
Wisconsin	0.43	0.87	0.74	0.78	0.34	0.63
Wyoming	1.06	0.17	0.21	0.04	0.29	0.36
50 State Average	1.44	1.93	1.94	1.62	2.23	1.73
Washington's Rank	**6**	**6**	**4**	**5**	**8**	**6**

Source: National Venture Capital Assoiciation Yearbook, 2018

Table 1.13
Innovation Drivers
Establishment Birth Rate
Per 100 Existing Establishments

	2013	2014	2015	2016	2017	2013-17
Alabama	8.57	8.24	8.39	8.48	8.47	8.43
Alaska	9.21	9.47	9.47	9.22	9.93	9.46
Arizona	10.51	10.63	11.97	11.46	11.58	11.23
Arkansas	8.75	8.48	9.51	9.14	8.90	8.96
California	11.81	11.84	12.54	12.32	12.01	12.10
Colorado	11.20	11.79	11.60	12.17	11.41	11.63
Connecticut	7.59	7.52	7.78	7.35	7.72	7.59
Delaware	10.33	10.95	10.31	10.40	10.74	10.54
Florida	11.85	11.83	12.43	12.07	11.39	11.91
Georgia	9.73	10.08	10.47	10.72	11.00	10.40
Hawaii	8.56	8.67	9.18	9.03	9.08	8.90
Idaho	11.78	11.66	12.52	12.19	12.15	12.06
Illinois	6.80	7.90	9.05	7.99	9.66	8.28
Indiana	7.81	8.07	8.37	7.83	7.93	8.00
Iowa	8.56	7.82	7.94	8.20	8.27	8.16
Kansas*	9.22	8.92	9.53	10.98	8.82	9.49
Kentucky	9.09	8.99	8.51	8.44	8.15	8.63
Louisiana	8.58	8.43	8.45	7.91	8.00	8.28
Maine	8.46	8.29	8.80	8.99	9.95	8.90
Maryland	9.00	9.30	9.79	9.28	9.30	9.33
Massachusetts	9.49	11.53	10.50	9.96	10.37	10.37
Michigan	8.44	8.39	7.71	7.65	7.51	7.94
Minnesota	7.51	8.03	8.72	8.22	7.90	8.07
Mississippi	7.73	7.98	8.08	8.31	7.97	8.01
Missouri	9.51	10.39	10.97	10.37	12.72	10.79
Montana	9.29	8.64	10.43	9.37	9.50	9.45
Nebraska	10.41	10.05	9.62	9.22	9.21	9.70
Nevada	12.01	11.84	12.26	12.28	12.62	12.20
New Hampshire	9.45	9.39	10.13	9.69	9.87	9.71
New Jersey	10.27	9.75	11.34	10.41	9.44	10.24
New Mexico	9.57	10.87	10.39	9.92	9.99	10.15
New York	9.51	9.32	9.73	9.42	9.40	9.48
North Carolina	9.20	9.35	10.24	10.24	9.78	9.76
North Dakota	12.22	11.02	9.81	8.84	8.95	10.17
Ohio	7.56	7.75	7.94	7.86	7.59	7.74
Oklahoma	9.65	9.51	9.17	8.99	9.45	9.35
Oregon	9.44	9.59	9.31	9.23	9.53	9.42
Pennsylvania	8.65	8.23	8.55	8.22	8.14	8.36
Rhode Island	9.21	9.66	10.36	9.54	10.00	9.75
South Carolina	9.08	9.55	9.63	9.55	9.75	9.51
South Dakota	8.25	8.60	8.66	8.45	8.70	8.53
Tennessee	9.19	9.08	9.54	9.58	9.42	9.36
Texas	10.03	10.07	10.57	10.75	10.94	10.47
Utah	11.62	12.04	12.35	12.25	12.61	12.17
Vermont	8.27	8.62	8.29	8.68	8.29	8.43
Virginia	8.31	8.33	14.27	9.54	8.84	9.86
Washington	**9.06**	**8.53**	**8.16**	**10.17**	**9.55**	**9.10**
West Virginia	7.12	7.88	7.68	7.52	7.69	7.58
Wisconsin	8.71	8.64	8.88	9.11	8.87	8.84
Wyoming	9.49	9.08	11.36	9.62	9.61	9.83
U.S. Average	9.31	9.41	9.83	9.54	9.57	9.53
Washington's Rank	**30**	**35**	**44**	**15**	**22**	**20**

Source: BLS Quarterly Census of Employment and Wages

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

	2012	2013	2014	2015	2016	2012-16
Alabama	3.6	4.1	3.3	3.3	2.4	3.3
Alaska	9.6	10.5	9.6	8.5	10.1	9.7
Arizona	1.2	1.4	1.6	1.0	1.4	1.3
Arkansas	6.9	6.2	5.0	4.8	6.1	5.8
California	10.0	10.0	10.8	5.3	8.6	8.9
Colorado	4.0	6.4	5.6	5.3	5.8	5.4
Connecticut	4.3	3.5	3.8	3.4	2.4	3.5
Delaware	7.8	10.3	10.3	1.9	11.2	8.3
Florida	0.5	0.6	0.6	0.6	0.6	0.6
Georgia	0.0	2.5	2.4	2.2	2.2	1.9
Hawaii	29.8	31.5	22.2	25.1	21.8	26.1
Idaho	4.6	2.8	1.7	1.9	1.5	2.5
Illinois	0.0	0.0	0.4	0.4	0.4	0.2
Indiana	5.9	5.4	5.1	5.3	5.1	5.4
Iowa	1.4	4.4	3.5	1.7	2.7	2.7
Kansas	0.2	0.0	1.1	1.2	0.5	0.6
Kentucky	0.4	0.6	0.6	1.4	0.9	0.8
Louisiana	8.6	8.2	6.6	8.0	7.4	7.8
Maine	0.2	0.2	0.1	0.8	1.0	0.5
Maryland	6.1	5.8	5.5	5.7	5.0	5.6
Massachusetts	5.2	4.8	0.0	5.0	4.3	3.8
Michigan	5.0	5.8	6.4	6.0	5.2	5.7
Minnesota	4.4	4.4	3.8	4.2	2.8	3.9
Mississippi	1.3	2.3	2.8	3.1	3.9	2.7
Missouri	1.5	1.3	1.6	1.6	1.4	1.5
Montana	1.5	0.9	0.7	0.9	0.9	1.0
Nebraska	0.1	0.3	0.3	0.9	1.1	0.5
Nevada	2.0	2.0	13.2	1.0	1.2	3.9
New Hampshire	1.7	1.2	0.6	0.2	0.2	0.8
New Jersey	9.8	8.6	8.7	9.0	9.0	9.0
New Mexico	0.2	0.8	0.9	1.0	1.3	0.8
New York	6.7	7.1	7.5	7.9	7.3	7.3
North Carolina	2.5	1.6	1.2	1.2	1.6	1.6
North Dakota	0.0	0.2	0.2	0.2	0.3	0.2
Ohio	2.1	0.9	0.9	2.8	3.2	2.0
Oklahoma	2.2	2.1	2.3	4.3	3.9	3.0
Oregon	2.0	2.1	1.7	2.0	1.4	1.8
Pennsylvania	1.3	1.0	2.8	2.9	2.9	2.2
Rhode Island	1.1	0.3	1.2	4.1	1.9	1.7
South Carolina	0.4	0.3	0.3	1.1	2.4	0.9
South Dakota	0.2	0.2	0.2	0.8	1.0	0.5
Tennessee	1.1	1.1	1.2	1.0	1.1	1.1
Texas	1.9	3.3	2.5	2.8	2.9	2.7
Utah	0.1	0.1	0.0	0.8	0.8	0.4
Vermont	0.2	0.2	0.1	0.1	0.2	0.2
Virginia	1.0	4.1	2.6	2.1	1.6	2.3
Washington	**7.1**	**6.7**	**5.1**	**5.6**	**6.0**	**6.1**
West Virginia	2.7	1.0	1.0	2.0	1.7	1.7
Wisconsin	1.4	5.0	4.9	6.0	4.9	4.4
Wyoming	0.5	1.9	2.1	2.0	1.8	1.7
U.S. Average	2.9	3.3	3.3	3.1	3.2	3.1
Washington's Rank	**44**	**43**	**39**	**42**	**42**	**43**

Source: Federal Highway Administration, Highway Statistics, Table HM-64, October 2017

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

	2013	2014	2015	2016	2017	2013-17
Alabama	0.0	0.0	0.0	0.0	0.0	0.0
Alaska	0.2	0.2	0.2	0.1	0.2	0.2
Arizona	1.0	1.0	1.4	2.1	1.4	1.4
Arkansas	0.0	0.0	0.0	0.0	0.0	0.0
California	2.4	2.9	3.2	3.5	6.0	3.6
Colorado	2.2	2.1	2.1	1.5	1.4	1.9
Connecticut	0.0	0.0	0.1	0.0	0.0	0.0
Delaware	0.0	0.0	0.0	0.0	0.0	0.0
Florida	1.9	3.1	1.8	2.0	2.8	2.3
Georgia	3.8	2.7	2.8	2.1	2.5	2.8
Hawaii	0.1	0.1	0.1	0.1	0.1	0.1
Idaho	0.0	0.0	0.0	0.3	0.1	0.1
Illinois	8.2	10.7	6.5	5.0	4.1	6.9
Indiana	0.3	0.3	0.4	0.3	0.4	0.3
Iowa	0.0	0.0	0.0	0.0	0.0	0.0
Kansas	0.3	0.3	0.3	0.2	0.3	0.3
Kentucky	0.4	0.2	0.3	0.1	0.4	0.3
Louisiana	0.1	0.0	0.0	0.0	0.0	0.0
Maine	0.0	0.0	0.0	0.1	0.0	0.0
Maryland	1.6	2.4	3.5	0.8	1.2	1.9
Massachusetts	6.5	8.8	10.4	6.8	20.2	10.6
Michigan	2.9	1.7	1.4	0.8	1.2	1.6
Minnesota	0.8	1.1	2.2	2.2	0.9	1.4
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	4.2	3.1	3.6	4.0	4.1	3.8
New Hampshire	1.4	1.3	1.1	1.1	1.4	1.3
New Jersey	40.8	38.8	28.0	29.1	66.0	40.5
New Mexico	0.2	0.4	0.5	0.6	0.7	0.5
New York	13.3	12.1	13.3	13.8	17.7	14.0
North Carolina	5.7	3.7	4.7	3.4	4.7	4.5
North Dakota	0.0	0.0	0.0	0.0	0.0	0.0
Ohio	2.7	2.4	2.1	1.3	2.0	2.1
Oklahoma	0.0	0.0	0.0	0.0	0.0	0.0
Oregon	0.1	0.1	0.2	0.2	0.2	0.1
Pennsylvania	20.8	16.3	14.4	7.3	14.0	14.6
Rhode Island	0.1	0.1	0.1	0.0	0.3	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	0.3	0.2	0.2	0.3	0.6	0.3
Texas	1.5	2.0	2.5	2.5	2.7	2.2
Utah	0.7	0.4	0.4	0.4	0.5	0.4
Vermont	0.0	0.0	0.1	0.1	0.1	0.0
Virginia	4.0	3.3	3.2	2.7	4.3	3.5
Washington	**0.3**	**0.3**	**1.2**	**2.1**	**4.5**	**1.7**
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	3.5	3.3	3.0	4.4	3.5
Washington Rank	**27**	**27**	**32**	**39**	**44**	**35**

Source: FAA Air Traffic System Management, Air Traffic Activity and Delay Report, 2017

Table 1.16
Innovation Drivers
High Speed Broadband Adoption
(Percent)

	2012	2013	2014	2015	2016	2012-16
Alabama	0.84	1.60	3.18	5.38	9.90	4.18
Alaska	0.34	0.70	1.31	2.40	6.57	2.26
Arizona	1.04	2.09	4.36	7.67	13.54	5.74
Arkansas	0.64	1.53	2.93	3.88	6.17	3.03
California	2.50	4.05	6.11	9.43	15.17	7.45
Colorado	1.36	2.45	4.30	7.23	11.44	5.35
Connecticut	3.33	3.81	6.45	9.06	15.23	7.58
Delaware	5.23	5.13	11.16	21.65	23.09	13.25
Florida	1.13	2.02	3.99	6.72	12.86	5.34
Georgia	0.86	2.65	7.30	7.87	12.27	6.19
Hawaii	1.25	1.77	2.12	3.70	6.51	3.07
Idaho	1.27	2.01	3.33	4.92	5.87	3.48
Illinois	1.43	2.95	5.02	8.19	12.43	6.00
Indiana	3.21	3.72	5.90	8.34	12.05	6.64
Iowa	2.62	3.15	4.35	6.05	8.40	4.91
Kansas	0.80	1.71	3.22	5.30	9.14	4.03
Kentucky	0.60	0.78	1.30	2.22	5.26	2.03
Louisiana	0.65	1.34	2.58	4.60	8.30	3.49
Maine	2.00	2.21	3.23	4.48	6.58	3.70
Maryland	1.86	3.30	6.57	11.08	20.15	8.59
Massachusetts	2.47	5.77	8.68	12.88	21.38	10.24
Michigan	2.22	3.46	6.37	9.93	14.49	7.30
Minnesota	2.95	4.08	6.10	8.68	12.64	6.89
Mississippi	0.99	1.45	2.72	4.13	6.13	3.08
Missouri	0.87	2.01	4.60	7.33	10.42	5.05
Montana	0.96	1.62	3.32	5.42	7.98	3.86
Nebraska	1.46	3.07	5.51	7.51	10.22	5.56
Nevada	1.47	2.22	4.61	8.53	14.81	6.33
New Hampshire	3.41	4.82	6.06	8.43	14.77	7.50
New Jersey	1.29	2.80	5.74	10.02	20.14	8.00
New Mexico	1.51	2.01	2.98	4.33	8.17	3.80
New York	2.20	3.79	6.00	10.06	18.11	8.03
North Carolina	2.78	3.48	4.45	6.09	10.81	5.52
North Dakota	4.51	5.86	7.15	9.03	12.62	7.83
Ohio	1.48	5.65	10.77	1.86	6.01	5.15
Oklahoma	2.04	2.34	4.00	6.00	10.54	4.98
Oregon	2.44	4.21	6.76	9.78	15.51	7.74
Pennsylvania	2.44	3.99	6.34	9.93	16.89	7.92
Rhode Island	2.14	2.86	6.42	11.50	22.70	9.13
South Carolina	1.84	2.61	3.78	5.19	9.17	4.52
South Dakota	1.18	2.59	5.61	7.16	11.25	5.56
Tennessee	1.37	2.52	5.20	7.53	12.44	5.81
Texas	1.31	2.85	4.80	7.44	11.32	5.55
Utah	6.03	7.64	9.90	13.55	17.48	10.92
Vermont	3.88	4.57	5.38	8.37	14.72	7.38
Virginia	3.72	6.09	7.58	11.68	19.26	9.66
Washington	**2.01**	**5.03**	**10.45**	**11.02**	**17.07**	**9.12**
West Virginia	1.82	2.15	3.54	5.55	8.09	4.23
Wisconsin	2.80	4.28	6.77	9.30	10.39	6.71
Wyoming	0.78	1.88	4.46	6.42	9.29	4.56
50 State Average	1.99	3.13	5.29	7.70	12.31	6.09
Washington's Rank	**21**	**7**	**3**	**7**	**9**	**6**

Source: Akamai State of the Internet, 2017

Table 1.17
Innovation Drivers
Unlinked Passenger Trips
(Per Capita)

	2012	2013	2014	2015	2016	2012-16
Alabama	1.4	1.6	1.6	1.8	1.7	1.6
Alaska	7.0	6.9	6.8	9.3	8.8	7.8
Arizona	14.5	15.1	14.7	14.4	13.0	14.3
Arkansas	2.0	2.0	2.0	2.2	2.1	2.1
California	37.1	37.4	37.6	36.8	35.6	36.9
Colorado	20.6	20.8	21.2	23.0	23.3	21.8
Connecticut	12.5	12.5	12.7	12.7	12.7	12.6
Delaware	12.6	12.1	11.7	10.9	9.8	11.4
Florida	14.4	14.6	14.3	13.8	12.6	13.9
Georgia	16.8	16.1	15.8	16.5	15.7	16.2
Hawaii	55.5	52.0	49.6	52.8	51.9	52.3
Idaho	1.9	1.7	1.5	2.1	1.9	1.8
Illinois	53.5	52.3	51.4	51.8	50.0	51.8
Indiana	5.2	5.3	5.3	5.4	5.2	5.3
Iowa	7.3	7.3	7.7	9.2	8.9	8.1
Kansas	2.5	2.6	2.6	3.1	2.5	2.7
Kentucky	6.2	6.2	5.6	6.1	5.8	5.9
Louisiana	8.8	8.3	7.5	7.3	7.2	7.8
Maine	4.2	4.1	4.0	5.0	5.2	4.5
Maryland	25.4	24.2	25.1	25.8	25.0	25.1
Massachusetts	64.7	63.3	65.1	65.4	64.9	64.7
Michigan	10.2	10.0	9.3	9.7	9.6	9.8
Minnesota	19.0	19.1	19.4	20.2	19.5	19.5
Mississippi	0.6	0.7	0.6	1.5	1.5	1.0
Missouri	16.8	11.3	11.6	11.4	10.6	12.3
Montana	2.5	2.4	2.4	3.9	4.4	3.1
Nebraska	3.5	3.5	3.6	3.7	3.6	3.6
Nevada	26.7	26.7	26.2	28.4	27.9	27.2
New Hampshire	2.4	2.9	3.0	3.3	3.3	3.0
New Jersey	45.4	44.0	45.8	46.6	46.6	45.7
New Mexico	7.8	7.9	7.9	8.4	7.8	8.0
New York	197.9	201.6	204.9	199.8	200.2	200.9
North Carolina	7.3	7.4	7.4	7.5	7.2	7.4
North Dakota	3.4	3.5	3.5	4.0	3.8	3.6
Ohio	9.8	9.7	9.8	9.8	9.4	9.7
Oklahoma	2.0	2.0	2.1	3.0	2.9	2.4
Oregon	32.5	31.8	31.6	32.3	31.5	31.9
Pennsylvania	36.8	36.1	35.3	35.3	36.0	35.9
Rhode Island	19.4	19.5	19.4	17.5	17.2	18.6
South Carolina	2.5	2.4	2.3	2.6	2.4	2.4
South Dakota	1.9	1.8	1.7	3.4	3.3	2.4
Tennessee	4.7	4.8	4.4	5.0	4.9	4.8
Texas	11.2	11.0	10.6	10.4	10.0	10.6
Utah	15.7	16.1	16.6	17.0	16.3	16.3
Vermont	4.4	4.4	4.1	11.6	9.1	6.7
Virginia	9.2	8.9	8.8	8.9	8.5	8.8
Washington	**34.8**	**35.0**	**35.4**	**35.9**	**36.2**	**35.5**
West Virginia	4.5	4.6	4.6	5.1	4.6	4.7
Wisconsin	12.9	12.3	12.1	12.1	12.0	12.3
Wyoming	0.8	0.8	0.9	4.4	4.5	2.3
U.S. Average	31.5	31.4	31.5	31.3	30.7	31.4
Washington's Rank	**8**	**8**	**7**	**7**	**6**	**8**

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

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

	2013	2014	2015	2016	2017	2012-17
Alabama	3,111	3,332	3,276	3,253	3,339	3,262
Alaska	22	44	13	31	17	25
Arizona	2,101	3,245	3,589	2,544	1,927	2,681
Arkansas	1,228	832	637	612	742	810
California	20,373	23,200	24,894	27,786	26,916	24,634
Colorado	942	534	370	433	488	553
Connecticut	928	752	676	757	1,050	832
Delaware	782	1,331	305	155	475	610
Florida	1,626	1,295	1,196	1,183	1,165	1,293
Georgia	2,708	3,144	2,692	2,546	2,453	2,709
Hawaii	0.36	0.09	0.19	0.36	0.60	0.32
Idaho	620	670	544	552	631	604
Illinois	8,964	8,900	8,566	8,535	9,543	8,901
Indiana	6,174	5,996	5,400	5,240	6,219	5,806
Iowa	3,192	3,238	2,580	2,933	3,083	3,005
Kansas	1,839	1,872	1,452	1,349	1,314	1,565
Kentucky	4,251	4,190	3,694	4,759	5,090	4,397
Louisiana	3,415	3,395	2,663	2,244	2,841	2,912
Maine	540	437	328	306	264	375
Maryland	606	662	478	453	437	527
Massachusetts	854	836	620	535	659	701
Michigan	48,395	45,031	46,509	50,025	52,149	48,422
Minnesota	2,848	3,077	2,483	2,121	2,238	2,553
Mississippi	1,642	1,695	1,453	1,553	1,409	1,550
Missouri	2,278	2,468	2,459	3,008	3,349	2,712
Montana	252	323	236	200	282	259
Nebraska	1,067	1,233	1,085	1,202	1,397	1,197
Nevada	445	446	337	310	316	370
New Hampshire	108	112	91	128	100	108
New Jersey	1,982	2,219	1,999	2,072	2,293	2,113
New Mexico	297	227	104	95	108	166
New York	2,263	1,801	1,467	1,343	1,313	1,637
North Carolina	1,494	1,489	1,371	1,210	1,293	1,371
North Dakota	1,927	2,704	1,541	992	928	1,618
Ohio	5,232	5,903	5,433	5,020	4,522	5,222
Oklahoma	537	474	330	327	379	409
Oregon	2,029	1,640	1,370	1,006	1,280	1,465
Pennsylvania	2,946	3,229	2,589	2,606	2,943	2,863
Rhode Island	80	74	71	82	88	79
South Carolina	1,555	1,471	1,464	1,532	1,458	1,496
South Dakota	394	309	411	222	321	331
Tennessee	4,516	4,916	4,470	3,827	4,347	4,415
Texas	21,719	21,259	17,634	14,555	16,254	18,284
Utah	381	446	594	559	559	508
Vermont	253	243	181	144	176	199
Virginia	774	731	584	570	527	637
Washington	**1,751**	**2,002**	**1,542**	**1,529**	**2,048**	**1,774**
West Virginia	973	984	702	699	614	794
Wisconsin	2,512	2,715	2,486	2,196	2,624	2,506
Wyoming	334	720	251	213	174	338
50 State Average	3,505	3,557	3,304	3,311	3,483	3,432
Washington Rank	**23**	**20**	**19**	**21**	**18**	**19**

Source: United States Department of Transportation, Bureau of Transportation Statistics, 2017

Chapter 2: Business Performance – Summary

- **Washington rank fell from 4th to 8th best in the nation in *Business Performance* this year.**
- **Of the ten indicators in this category, two improved, six worsened and one was unchanged. One indicator was 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 one indicator and worsened in five.**
- **In the subcategory *Cost of Doing Business*, one indicator improved, one worsened, one was unchanged, and one was not updated.**

Business Prosperity

Foreign Exports Inclusive and Exclusive of Transportation Equipment

In 2017 Washington's foreign exports totalled 18.3 percent of personal income, ranking 3rd in the nation.

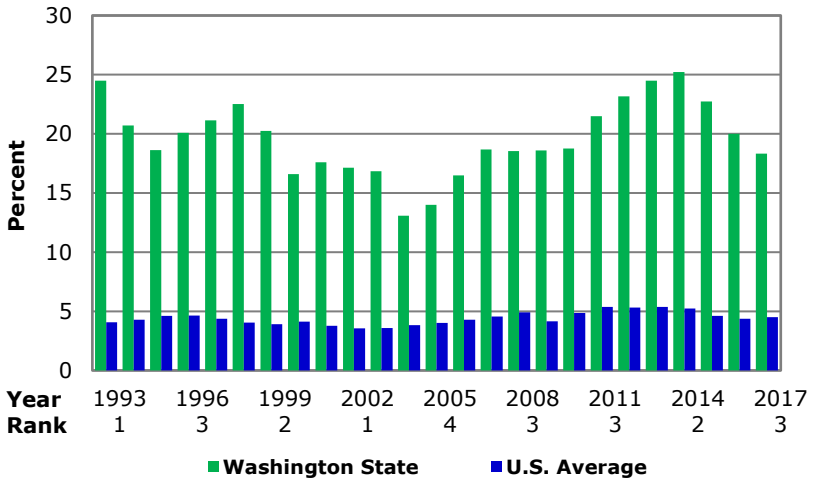
In 2017 Washington's ranking in foreign exports as a percent of personal income decreased to 3rd place from 2nd the year before. Washington's foreign exports were 18.33 percent of personal income in 2017. Despite the decrease, Washington's rate remains well above the national average of 4.51 percent. Number-one-ranked Louisiana had exports constituting 27.98 percent of personal income. Washington is 3rd in its five-year ranking with 22.16 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 7.93 percent of personal income in 2017. Even when not including transportation equipment, this number is above the U.S. average of 7.73

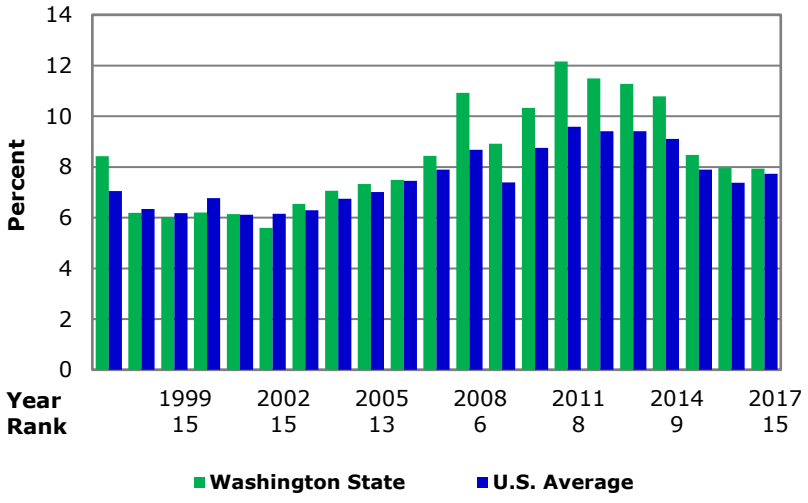
percent. However, the state's ranking dropped to from 11th in 2016 to 15th in 2017. For the past five years Washington has been ranked 11th in the nation for foreign exports as a percent of personal income excluding transportation equipment.

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 2017

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 2017

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

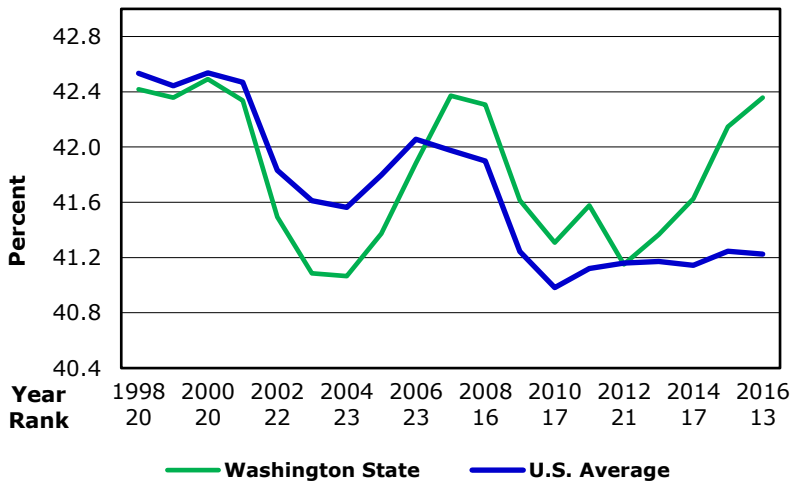
track and credit to specific states. Software, one of Washington's main exports, is classified as a service when it is not exported on physical media and is therefore not included in the Census measure. As software giant Microsoft contributes greatly to state personal income while the majority of its 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 2016

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

In 2016, overall average wages and salaries in the United States was $53,870 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.

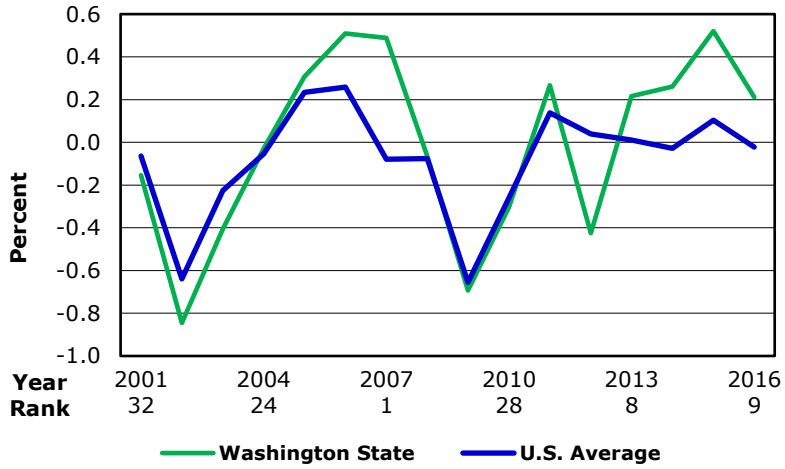
WA's above average growth can be attributed to IT, construction, and aerospace

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 1.2% (Washington was 42.4% and the U.S. was 41.2%). Over this period, Washington's rank improved from 21st highest in the nation to 13th.

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



Source: BEA, Washington State Office of the Forecast Council; data through 2016

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.

Value Added Per Hour of Labor in Manufacturing

Value added is the difference between raw and final goods value

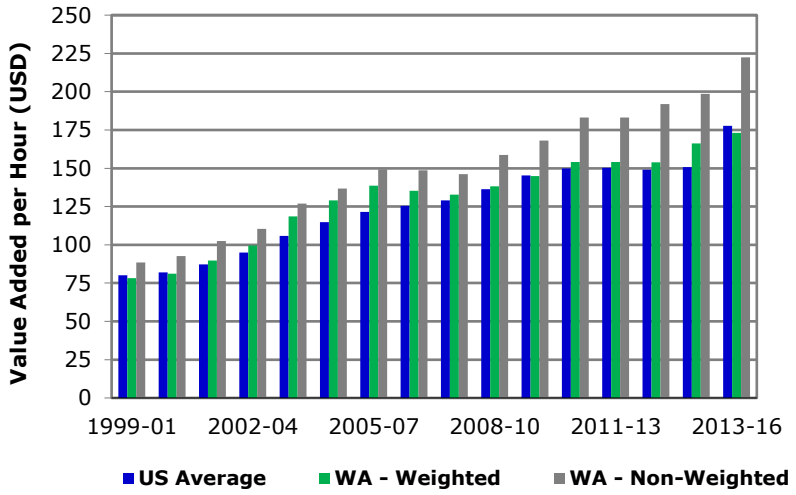
Value added is a measure of manufacturing activity derived by subtracting the value of raw materials from the value of finished, final goods. An industry's total value added represents the amount of revenue the industry has available to pay wages, rent, taxes, interest, profit, and all other business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

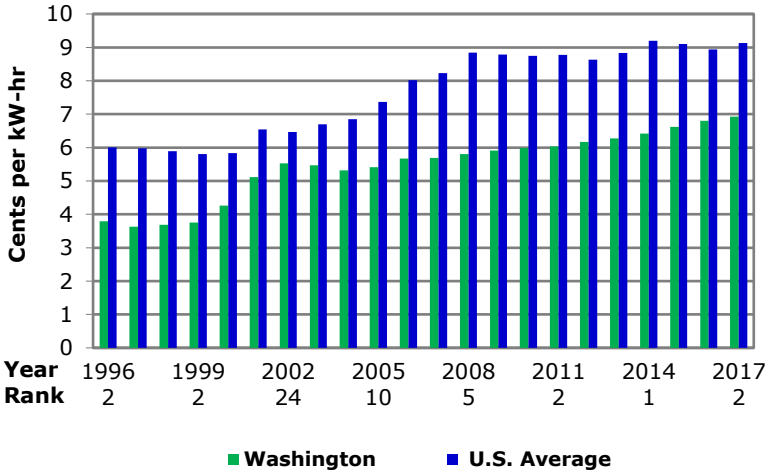
Cost of Doing Business

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 2017

Washington is 2nd in the nation for electricity prices in 2017.

Due to the state's abundant hydrological resources, Washington has long enjoyed some of the lowest electricity prices in the country, ranking either 1st or 2nd in lowest electricity prices among the states in the years 1990 through 1999. Drought and problems related to California's energy market, however, caused electricity prices to soar from late 2000 through 2002. As the effects of the disruptions diminished around 2003, however, Washington's costs began to moderate compared to the rest of the nation. Since 2009 the state has ranked either 1st of 2nd in the nation. In 2017 the state's cost of electricity was 6.92 cents per kilowatt-hour. This ranks Washington at 2nd in the nation for the second year. The only state with less expensive electricity costs was Oklahoma, with a rate of 6.86 cents per kilowatt-hour. Washington's five year average is 6.61 cents per kilowatt-hour, ranking best in the nation, while the U.S. average is 9.04 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 2008 recession limited data collection during those periods.

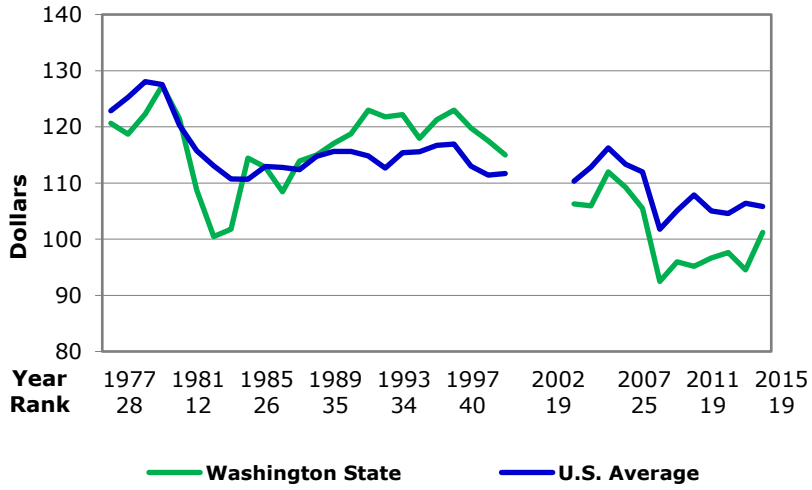
WA's tax burden has been below the national average for 14 straight years

Washington state tax collections per $1,000 personal income increased in 2017 to $101.19. With this increase, Washington's ranking dropped from 15th in the nation to 19th. Washington's tax collections were below the U.S. average of $105.80. Washington's rank on average from 2011 to 2015 was 16th, with $97.03 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 2015

Unemployment Insurance Costs

UI benefits provide security to the iobless

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.

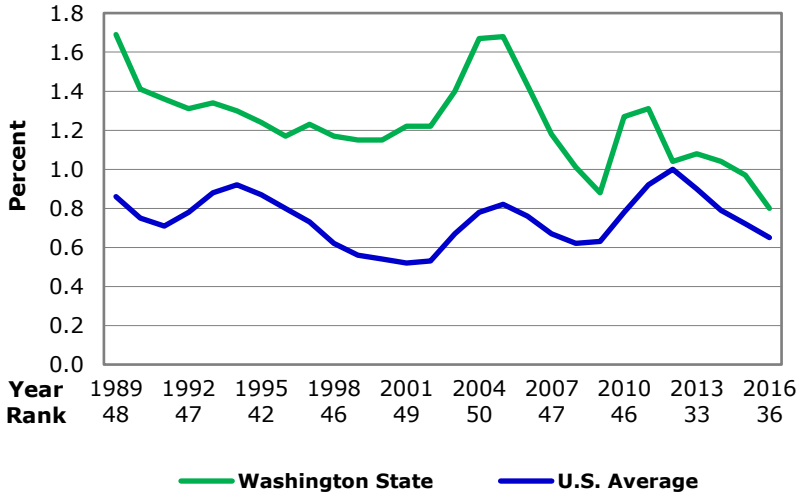
UI is a combined state federal system

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 2016, Washington's average unemployment insurance cost as a percent of the total wages of covered employees was 0.80 percent, down from 0.97 percent in 2015. The national average rate for 2016 was lower at 0.65 percent, down from 0.72 the year before. The state's rank in 2016 improved to 36th lowest in the nation. In 2015, Washington's ranking was 39th. Washington's five-year average of 0.99 percent ranked 34h 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



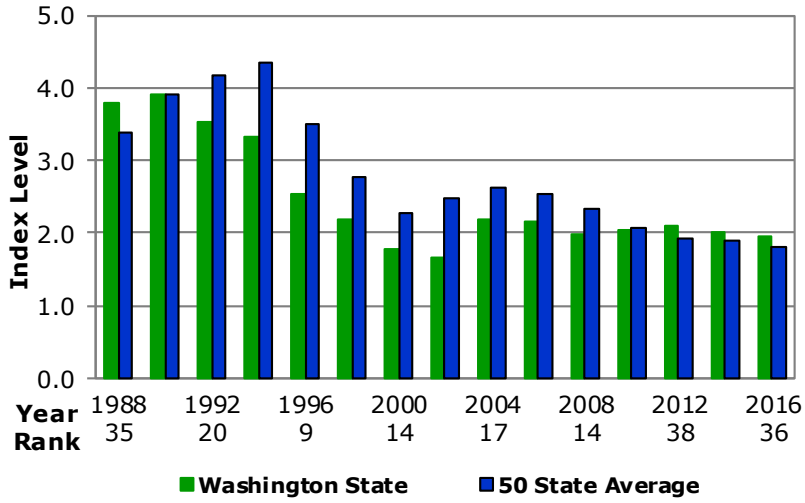
Source: U.S. Department of Labor, Employment, and Training Administration; data through 2016

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 2016

Premium costs are determined for every $100 of payroll

In 2016, Washington's premium costs for the industries examined by the study were $1.97 per $100 of payroll, a decrease from $2.00 per $100 of payroll in 2014. The state's rank fell from 34th in 2014 to 36th this past year. Washington's average rate of $2.02 per $100 of payroll for the period from 2008 through 2016 ranked 27th among the states and was slightly above the national average of $2.00.

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)

	2013	2014	2015	2016	2017	2013-17
Alabama	11.17	10.89	10.42	10.82	11.18	10.90
Alaska	11.94	12.70	11.08	10.54	11.92	11.64
Arizona	8.04	8.31	8.38	7.85	7.16	7.95
Arkansas	6.73	6.09	5.05	4.82	5.09	5.56
California	9.03	8.75	7.75	7.39	7.47	8.08
Colorado	3.46	3.13	2.81	2.63	2.68	2.94
Connecticut	7.12	6.68	6.22	5.81	5.88	6.34
Delaware	13.13	12.49	12.17	9.91	9.66	11.47
Florida	7.57	6.82	5.86	5.49	5.58	6.27
Georgia	10.12	9.99	9.23	8.21	8.25	9.16
Hawaii	0.95	2.19	2.72	1.11	1.28	1.65
Idaho	10.05	8.46	6.70	7.34	5.56	7.62
Illinois	11.02	10.88	9.71	9.00	9.64	10.05
Indiana	13.30	13.33	12.22	12.12	12.82	12.76
Iowa	10.41	10.97	9.27	8.41	9.26	9.66
Kansas	9.39	8.90	7.83	7.40	8.11	8.32
Kentucky	16.23	17.00	16.23	16.91	17.59	16.79
Louisiana	34.09	33.17	24.33	24.41	27.98	28.80
Maine	5.10	5.13	4.85	4.88	4.50	4.89
Maryland	3.76	3.79	2.98	2.76	2.59	3.18
Massachusetts	6.99	6.84	5.93	5.92	6.10	6.36
Michigan	15.30	14.22	12.63	12.46	13.28	13.58
Minnesota	8.11	7.97	7.14	6.68	7.00	7.38
Mississippi	12.46	11.22	10.44	9.91	10.14	10.83
Missouri	5.38	5.69	5.30	5.33	5.32	5.40
Montana	3.76	3.71	3.20	3.04	3.50	3.44
Nebraska	8.62	8.66	7.10	6.69	7.45	7.70
Nevada	8.02	6.67	6.97	7.62	9.09	7.67
New Hampshire	5.14	6.08	5.52	5.55	6.66	5.79
New Jersey	7.41	7.11	5.96	5.67	6.12	6.45
New Mexico	3.76	4.96	4.79	4.52	4.43	4.49
New York	8.06	8.01	7.19	6.52	6.44	7.24
North Carolina	7.89	8.00	7.27	7.04	7.33	7.51
North Dakota	10.92	12.82	9.59	12.78	14.14	12.05
Ohio	10.84	10.76	10.08	9.52	9.42	10.13
Oklahoma	4.21	3.60	3.06	3.01	3.14	3.40
Oregon	12.01	12.60	11.24	11.72	11.40	11.79
Pennsylvania	6.99	6.59	6.19	5.62	5.80	6.24
Rhode Island	4.44	4.73	4.06	4.28	4.38	4.38
South Carolina	15.65	16.66	16.34	15.98	15.85	16.10
South Dakota	4.20	4.03	3.47	2.94	3.24	3.58
Tennessee	12.88	12.66	11.74	10.93	11.18	11.88
Texas	24.17	23.10	19.37	17.94	19.91	20.90
Utah	15.39	11.03	11.21	9.67	8.88	11.24
Vermont	14.08	12.43	10.38	9.59	8.71	11.04
Virginia	4.47	4.65	4.08	3.66	3.59	4.09
Washington	**24.50**	**25.23**	**22.73**	**20.00**	**18.33**	**22.16**
West Virginia	13.60	11.50	8.67	7.52	10.33	10.32
Wisconsin	9.42	9.18	8.47	7.78	8.04	8.58
Wyoming	4.40	5.34	3.56	3.40	3.64	4.07
50 State Average	5.37	5.24	4.62	4.36	4.51	4.82
Washington's Rank	**2**	**2**	**2**	**2**	**3**	**2**

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)

	2013	2014	2015	2016	2017	2013-17
Alabama	6.27	6.02	5.38	5.17	5.56	5.68
Alaska	11.80	12.16	10.95	10.44	11.69	11.41
Arizona	6.48	6.86	6.75	6.15	5.99	6.44
Arkansas	4.62	4.40	4.09	3.59	3.66	4.07
California	8.16	7.81	6.91	6.54	6.63	7.21
Colorado	3.28	2.95	2.66	2.51	2.56	2.79
Connecticut	3.65	3.62	3.36	3.30	3.47	3.48
Delaware	11.61	11.25	9.21	7.38	7.71	9.43
Florida	6.55	5.80	4.91	4.61	4.62	5.30
Georgia	7.65	7.42	6.72	6.00	6.07	6.77
Hawaii	0.69	1.46	0.95	0.73	0.77	0.92
Idaho	9.82	8.07	6.49	6.52	5.32	7.24
Illinois	9.71	9.58	8.48	7.92	8.46	8.83
Indiana	9.49	9.36	8.84	8.39	8.91	9.00
Iowa	9.63	10.28	8.70	7.89	8.66	9.03
Kansas	7.79	7.06	5.92	5.64	5.95	6.47
Kentucky	8.99	8.50	7.91	7.47	7.55	8.08
Louisiana	33.39	32.71	24.06	24.01	27.69	28.37
Maine	4.64	4.76	4.25	4.23	3.98	4.37
Maryland	2.73	2.69	2.34	2.21	2.08	2.41
Massachusetts	6.71	6.51	5.64	5.67	5.87	6.08
Michigan	7.72	7.56	6.62	6.42	6.81	7.03
Minnesota	7.12	7.01	6.33	5.95	6.29	6.54
Mississippi	11.34	10.27	9.28	8.48	8.95	9.66
Missouri	4.20	4.35	4.09	3.74	3.85	4.05
Montana	3.58	3.55	3.07	2.75	3.37	3.26
Nebraska	8.16	8.22	6.75	6.41	7.12	7.33
Nevada	7.76	6.51	6.83	7.46	8.92	7.50
New Hampshire	4.94	5.84	5.26	5.09	5.87	5.40
New Jersey	6.96	6.62	5.52	5.18	5.70	6.00
New Mexico	3.48	4.70	4.60	4.27	4.17	4.24
New York	7.64	7.63	6.88	6.21	6.09	6.89
North Carolina	7.07	6.96	6.33	6.02	6.34	6.54
North Dakota	10.57	12.47	9.32	12.54	13.88	11.75
Ohio	7.44	7.49	6.98	6.63	6.60	7.03
Oklahoma	3.62	3.22	2.62	2.57	2.64	2.93
Oregon	11.32	11.63	10.58	10.70	10.82	11.01
Pennsylvania	2.76	2.65	2.49	2.48	1.86	2.45
Rhode Island	4.32	4.55	3.90	4.10	4.15	4.20
South Carolina	9.77	9.91	8.15	7.24	7.30	8.47
South Dakota	3.75	3.60	3.08	2.73	2.93	3.22
Tennessee	10.18	9.73	8.98	8.41	8.63	9.18
Texas	22.20	21.39	17.64	16.12	18.23	19.12
Utah	14.63	10.21	10.53	8.98	8.16	10.50
Vermont	13.78	12.07	10.13	9.32	8.48	10.75
Virginia	4.04	4.18	3.62	3.28	3.18	3.66
Washington	**11.27**	**10.78**	**8.47**	**7.96**	**7.93**	**9.28**
West Virginia	11.68	11.14	8.27	6.68	9.11	9.38
Wisconsin	8.55	8.34	7.64	6.92	7.06	7.70
Wyoming	4.35	5.31	3.53	3.37	3.62	4.03
U.S. Average	9.41	9.10	7.90	7.38	7.73	8.30
Washington's Rank	**10**	**9**	**14**	**11**	**15**	**11**

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

Trade data prepared by the United States Census Bureau

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

	2012	2013	2014	2015	2016	2012-16
Alabama	39.2	39.3	39.0	38.9	38.8	39.0
Alaska	37.7	37.7	37.8	38.1	37.5	37.8
Arizona	41.0	41.1	40.9	40.8	41.1	41.0
Arkansas	36.9	36.4	36.2	36.1	35.9	36.3
California	40.2	40.0	39.7	39.9	39.9	40.0
Colorado	41.8	42.0	42.2	42.3	42.3	42.1
Connecticut	43.2	43.0	42.8	42.7	42.7	42.9
Delaware	41.5	41.2	40.8	41.0	40.9	41.1
Florida	39.4	39.6	39.6	39.9	55.5	42.8
Georgia	39.9	40.0	40.2	40.4	40.3	40.1
Hawaii	30.9	30.9	30.8	31.2	40.5	32.9
Idaho	36.8	36.9	37.0	37.3	31.5	35.9
Illinois	42.8	42.7	42.6	42.7	37.3	41.6
Indiana	41.4	41.5	41.4	41.6	42.6	41.7
Iowa	37.6	37.6	38.1	38.0	41.8	38.6
Kansas	39.2	39.4	39.3	39.5	37.9	39.1
Kentucky	39.1	38.9	39.0	39.1	39.3	39.1
Louisiana	40.9	41.3	41.9	41.5	39.2	41.0
Maine	38.1	37.9	37.8	38.1	40.7	38.5
Maryland	44.2	44.1	43.8	43.9	38.1	42.8
Massachusetts	44.0	43.9	43.8	44.1	44.0	44.0
Michigan	43.3	43.7	44.0	44.2	44.3	43.9
Minnesota	42.5	42.7	42.8	43.0	44.5	43.1
Mississippi	32.8	32.9	32.4	32.1	43.0	34.6
Missouri	40.9	40.9	41.0	41.0	31.6	39.1
Montana	37.1	37.4	37.3	37.5	41.2	38.1
Nebraska	39.4	39.4	39.4	39.5	37.1	39.0
Nevada	31.8	32.0	32.0	32.3	39.4	33.5
New Hampshire	40.9	40.9	40.7	40.9	32.7	39.2
New Jersey	42.5	42.6	42.4	42.7	41.1	42.3
New Mexico	38.3	38.1	38.1	38.0	42.6	39.0
New York	42.2	42.3	42.3	42.5	37.6	41.4
North Carolina	37.2	37.1	37.2	37.6	42.7	38.4
North Dakota	43.1	43.6	44.2	43.6	37.8	42.5
Ohio	43.2	43.4	43.5	43.5	42.3	43.2
Oklahoma	40.8	40.7	40.8	40.3	43.4	41.2
Oregon	38.5	38.6	38.6	38.8	39.6	38.8
Pennsylvania	42.5	42.4	42.3	42.3	39.0	41.7
Rhode Island	41.7	41.5	41.4	41.4	42.0	41.6
South Carolina	35.6	35.6	35.5	35.6	41.5	36.8
South Dakota	39.9	40.3	40.4	40.7	36.0	39.5
Tennessee	39.4	39.3	39.4	39.7	40.7	39.7
Texas	44.1	44.3	44.3	44.2	39.7	43.3
Utah	42.9	43.1	43.1	43.4	43.6	43.2
Vermont	37.5	37.3	37.1	37.1	43.5	38.5
Virginia	42.9	42.8	42.5	42.4	37.1	41.5
Washington	**41.2**	**41.4**	**41.6**	**42.1**	**42.4**	**41.7**
West Virginia	41.6	41.2	40.9	40.4	42.4	41.3
Wisconsin	41.2	41.0	40.9	41.3	39.7	40.8
Wyoming	39.9	39.5	40.1	39.1	41.2	39.9
U.S. Average	41.2	41.2	41.1	41.2	41.2	41.2
Washington's Rank	**21**	**18**	**17**	**16**	**13**	**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, 2016.

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

	2012	2013	2014	2015	2016	2012-16
Alabama	0.1	0.0	-0.3	-0.1	-0.1	-0.1
Alaska	0.2	0.0	0.1	0.3	-0.6	0.0
Arizona	0.0	0.1	-0.2	0.0	0.3	0.0
Arkansas	0.2	-0.4	-0.2	-0.1	-0.2	-0.1
California	-0.6	-0.2	-0.3	0.2	0.1	-0.2
Colorado	0.1	0.1	0.3	0.1	0.0	0.1
Connecticut	-0.3	-0.2	-0.3	0.0	0.0	-0.2
Delaware	-0.3	-0.3	-0.4	0.1	-0.1	-0.2
Florida	0.1	0.2	0.1	0.3	0.3	0.2
Georgia	0.2	0.1	0.2	0.2	0.1	0.2
Hawaii	-0.1	0.0	-0.1	0.4	0.4	0.1
Idaho	0.0	0.1	0.1	0.3	0.0	0.1
Illinois	0.2	0.0	-0.1	0.1	-0.1	0.0
Indiana	0.3	0.1	-0.1	0.2	0.2	0.1
Iowa	0.3	0.0	0.5	-0.1	-0.1	0.1
Kansas	0.1	0.2	0.0	0.2	-0.2	0.0
Kentucky	0.2	-0.1	0.0	0.1	0.1	0.1
Louisiana	0.4	0.4	0.6	-0.4	-0.8	0.0
Maine	0.1	-0.2	-0.2	0.3	0.1	0.0
Maryland	-0.2	-0.1	-0.3	0.1	0.1	-0.1
Massachusetts	-0.4	0.0	-0.1	0.3	0.2	0.0
Michigan	0.5	0.4	0.3	0.3	0.3	0.3
Minnesota	0.2	0.2	0.1	0.2	-0.1	0.1
Mississippi	0.0	0.1	-0.5	-0.3	-0.5	-0.2
Missouri	0.0	0.1	0.1	0.0	0.2	0.1
Montana	0.0	0.3	-0.1	0.2	-0.4	0.0
Nebraska	0.0	0.1	0.0	0.0	-0.1	0.0
Nevada	0.1	0.2	0.0	0.3	0.4	0.2
New Hampshire	-0.1	0.0	-0.2	0.2	0.3	0.0
New Jersey	-0.2	0.1	-0.2	0.3	-0.1	0.0
New Mexico	0.0	-0.1	0.0	-0.1	-0.4	-0.1
New York	0.0	0.0	0.0	0.2	0.2	0.1
North Carolina	0.1	-0.1	0.1	0.3	0.2	0.1
North Dakota	1.4	0.5	0.6	-0.6	-1.3	0.1
Ohio	0.2	0.1	0.1	0.0	-0.1	0.1
Oklahoma	0.5	-0.1	0.1	-0.5	-0.7	-0.1
Oregon	0.1	0.1	0.0	0.2	0.2	0.1
Pennsylvania	0.2	-0.1	-0.1	0.0	-0.3	-0.1
Rhode Island	0.3	-0.2	-0.1	0.0	0.0	0.0
South Carolina	-0.1	0.0	-0.1	0.1	0.4	0.1
South Dakota	0.3	0.4	0.1	0.3	-0.1	0.2
Tennessee	0.1	-0.1	0.0	0.3	0.0	0.1
Texas	0.5	0.1	0.1	-0.1	-0.6	0.0
Utah	0.3	0.2	0.1	0.3	0.1	0.2
Vermont	-0.3	-0.2	-0.2	0.0	0.0	-0.2
Virginia	-0.1	-0.1	-0.4	-0.1	0.0	-0.1
Washington	**-0.4**	**0.2**	**0.3**	**0.5**	**0.2**	**0.2**
West Virginia	0.1	-0.4	-0.3	-0.6	-0.7	-0.4
Wisconsin	0.2	-0.2	0.0	0.3	-0.1	0.0
Wyoming	-0.1	-0.4	0.5	-0.9	-1.8	-0.5
U.S. Average	0.04	0.01	-0.03	0.10	-0.02	0.0
Washington's Rank	**49**	**8**	**7**	**1**	**9**	**7**

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, 2016.

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

	2013	2014	2015	2016	2017	2013-17
Alabama	8.58	8.82	8.84	9.04	9.40	8.94
Alaska	15.69	16.48	16.24	16.61	18.28	16.66
Arizona	8.50	8.57	8.68	8.64	8.88	8.65
Arkansas	7.20	7.19	7.46	7.35	7.41	7.32
California	13.03	14.23	14.26	13.79	14.64	13.99
Colorado	8.79	8.97	8.85	8.68	8.85	8.83
Connecticut	13.77	14.43	14.72	14.55	14.95	14.49
Delaware	9.45	9.68	9.43	9.27	9.02	9.37
Florida	8.63	9.03	8.97	8.41	8.91	8.79
Georgia	8.41	8.78	8.23	8.19	8.26	8.38
Hawaii	32.28	32.52	25.33	23.03	25.21	27.67
Idaho	6.83	7.19	7.30	7.27	7.47	7.21
Illinois	7.21	8.24	8.05	8.00	7.84	7.87
Indiana	8.37	8.69	8.57	8.77	9.10	8.70
Iowa	7.24	7.41	7.67	7.90	8.26	7.70
Kansas*	8.71	9.14	9.07	9.25	9.25	9.09
Kentucky	7.33	7.84	7.80	7.98	8.00	7.79
Louisiana	7.67	7.81	7.32	7.16	7.47	7.48
Maine	10.30	11.11	11.06	10.81	10.88	10.83
Maryland	9.70	10.25	9.98	9.73	9.75	9.88
Massachusetts	13.78	13.86	14.86	14.69	14.30	14.30
Michigan	9.64	9.52	9.09	9.12	9.49	9.37
Minnesota	8.38	8.52	8.44	8.84	9.41	8.72
Mississippi	8.50	8.99	8.90	8.03	8.58	8.60
Missouri	7.74	7.82	8.03	8.39	8.39	8.07
Montana	7.80	7.88	8.20	8.10	8.12	8.02
Nebraska	8.11	8.20	8.22	8.35	8.44	8.26
Nevada	7.95	8.47	8.22	7.09	7.22	7.79
New Hampshire	12.62	13.32	14.04	13.58	13.75	13.46
New Jersey	11.93	12.40	11.90	11.40	11.42	11.81
New Mexico	8.31	8.72	8.66	8.16	8.51	8.47
New York	11.63	12.07	11.59	11.02	11.12	11.49
North Carolina	7.78	7.79	7.81	7.68	7.55	7.72
North Dakota	7.86	8.29	8.52	8.67	8.95	8.46
Ohio	8.02	8.53	8.81	8.75	8.62	8.55
Oklahoma	6.80	7.14	6.72	6.58	6.86	6.82
Oregon	7.46	7.57	7.63	7.74	7.77	7.63
Pennsylvania	8.28	8.75	8.61	8.28	8.07	8.40
Rhode Island	12.45	13.84	14.94	14.31	14.97	14.10
South Carolina	8.24	8.59	8.49	8.57	8.68	8.51
South Dakota	7.86	8.08	8.42	8.76	8.85	8.39
Tennessee	8.43	8.69	8.51	8.35	8.66	8.53
Texas	7.08	7.31	7.09	7.07	7.15	7.14
Utah	7.28	7.49	7.61	7.76	7.66	7.56
Vermont	13.04	12.72	12.77	12.78	12.74	12.81
Virginia	7.42	7.62	7.69	7.37	7.49	7.52
Washington	**6.27**	**6.42**	**6.62**	**6.80**	**6.92**	**6.61**
West Virginia	7.33	7.09	7.57	8.22	8.36	7.71
Wisconsin	9.32	9.39	9.52	9.43	9.72	9.48
Wyoming	7.66	7.92	8.14	8.39	8.58	8.14
U.S. Average	8.83	9.19	9.10	8.93	9.13	9.04
Washington's Rank	**1**	**1**	**1**	**2**	**2**	**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)	2011	2012	2013	2014	2015	2011-2015
Alabama	85.45	84.72	85.64	85.01	86.14	85.39
Alaska	64.24	133.78	233.72	176.65	208.86	163.45
Arizona	92.93	93.42	98.03	97.60	100.31	96.46
Arkansas	102.23	104.68	104.70	100.94	107.16	103.94
California	115.14	113.67	106.33	110.80	116.21	112.43
Colorado	93.77	95.36	96.03	96.02	101.13	96.46
Connecticut	111.29	112.99	108.92	111.24	104.57	109.80
Delaware	106.75	101.66	104.04	106.42	105.51	104.88
Florida	81.61	84.31	84.68	82.10	88.43	84.23
Georgia	90.96	92.16	89.81	90.80	93.29	91.41
Hawaii	131.72	129.06	126.08	130.07	118.64	127.11
Idaho	93.52	92.32	92.00	92.51	95.05	93.08
Illinois	117.43	122.96	122.71	122.41	112.26	119.55
Indiana	95.12	95.97	101.01	97.92	101.78	98.36
Iowa	107.88	103.27	108.30	104.89	109.85	106.84
Kansas	94.58	95.63	102.51	98.93	105.05	99.34
Kentucky	102.50	102.38	99.75	98.89	101.89	101.08
Louisiana	94.48	97.70	97.13	94.38	98.63	96.47
Maine	123.94	122.33	118.69	119.32	120.99	121.05
Maryland	108.84	106.81	102.20	102.79	100.61	104.25
Massachusetts	107.61	105.92	101.49	101.98	102.90	103.98
Michigan	98.22	96.65	98.10	96.93	104.65	98.91
Minnesota	121.55	119.28	117.81	121.45	119.92	120.00
Mississippi	107.25	105.39	102.69	104.09	102.53	104.39
Missouri	88.95	87.72	88.95	86.38	88.70	88.14
Montana	100.18	98.09	96.07	96.24	98.75	97.87
Nebraska	105.15	106.57	98.60	101.72	107.20	103.85
Nevada	102.73	103.86	102.55	102.18	103.05	102.87
New Hampshire	88.82	84.12	80.86	80.45	84.82	83.81
New Jersey	116.05	116.31	113.76	114.73	117.78	115.73
New Mexico	113.01	114.27	105.23	102.71	106.24	108.29
New York	155.61	155.29	153.06	150.32	155.37	153.93
North Carolina	96.81	96.80	97.87	94.11	100.73	97.26
North Dakota	161.66	178.91	154.24	161.57	161.28	163.53
Ohio	104.77	104.46	104.51	105.11	108.38	105.45
Oklahoma	82.53	84.25	91.10	85.35	90.16	86.68
Oregon	105.95	105.24	102.37	100.62	103.50	103.54
Pennsylvania	103.26	102.65	101.66	100.56	104.76	102.58
Rhode Island	113.44	112.08	112.98	111.07	112.18	112.35
South Carolina	93.83	93.19	90.52	90.66	92.18	92.08
South Dakota	84.10	83.25	78.71	78.82	80.61	81.10
Tennessee	82.12	80.58	80.95	80.60	84.54	81.76
Texas	91.56	95.04	93.35	91.45	95.46	93.37
Utah	97.87	98.93	101.19	100.91	105.31	100.84
Vermont	122.96	122.89	117.97	117.99	122.55	120.87
Virginia	89.57	87.35	86.31	86.01	89.35	87.72
Washington	**95.18**	**96.65**	**97.59**	**94.53**	**101.19**	**97.03**
West Virginia	114.42	114.34	111.97	111.66	117.22	113.92
Wisconsin	105.47	107.58	109.56	108.52	117.67	109.76
Wyoming	113.94	118.34	128.32	112.31	143.19	123.22
U.S. Average	107.88	104.99	104.58	106.41	105.80	105.97
Washington's Rank	**19**	**18**	**16**	**15**	**19**	**16**

Source: Washington State Department of Revenue, Comparative State and Local Taxes (www.dor.wa.gov), 20

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

	2012	2013	2014	2015	2016	2012-16
Alabama	0.75	0.67	0.54	0.48	0.39	0.57
Alaska	1.64	1.86	1.49	1.20	1.08	1.45
Arizona	0.46	0.47	0.46	0.45	0.45	0.46
Arkansas	1.11	1.01	0.95	0.89	0.70	0.93
California	0.87	0.85	0.78	0.73	0.69	0.78
Colorado	0.87	0.71	0.68	0.60	0.56	0.68
Connecticut	1.01	1.00	0.93	0.90	0.89	0.95
Delaware	0.72	0.78	0.77	0.70	0.64	0.72
Florida	0.88	0.78	0.63	0.42	0.29	0.60
Georgia	0.57	0.58	0.54	0.48	0.42	0.52
Hawaii	1.77	2.16	1.40	1.00	0.75	1.42
Idaho	1.86	1.59	0.96	0.72	0.69	1.16
Illinois	1.37	1.21	0.99	0.88	0.79	1.05
Indiana	0.80	0.77	0.72	0.64	0.55	0.70
Iowa	1.31	1.15	0.89	0.70	0.85	0.98
Kansas	0.83	0.81	0.73	0.85	0.49	0.74
Kentucky	0.91	0.90	0.88	0.86	0.86	0.88
Louisiana	0.35	0.36	0.32	0.31	0.30	0.33
Maine	1.04	1.04	0.87	0.84	0.69	0.90
Maryland	1.11	0.83	0.59	0.60	0.52	0.73
Massachusetts	1.15	1.10	1.02	0.73	0.71	0.94
Michigan	1.25	1.17	0.95	0.83	0.73	0.99
Minnesota	1.32	1.35	0.94	0.73	0.51	0.97
Mississippi	0.92	0.72	0.57	0.49	0.41	0.62
Missouri	0.74	0.71	0.67	0.61	0.57	0.66
Montana	1.23	1.19	1.10	0.91	0.66	1.02
Nebraska	0.65	0.46	0.38	0.32	0.30	0.42
Nevada	1.26	2.63	1.11	1.13	1.10	1.45
New Hampshire	0.93	0.69	0.47	0.26	0.20	0.51
New Jersey	1.56	1.57	1.46	1.34	1.26	1.44
New Mexico	0.86	0.87	0.82	1.30	1.34	1.04
New York	0.70	0.69	0.76	0.72	0.63	0.70
North Carolina	0.91	0.86	0.88	0.98	0.78	0.88
North Dakota	0.69	0.66	0.67	0.63	0.91	0.71
Ohio	0.80	0.65	0.62	0.58	0.54	0.64
Oklahoma	1.08	1.01	0.65	0.39	0.34	0.69
Oregon	1.75	1.78	1.62	1.46	1.32	1.59
Pennsylvania	2.92	1.49	1.33	1.30	1.33	1.67
Rhode Island	1.69	1.58	1.52	1.48	1.51	1.56
South Carolina	0.72	0.78	0.79	0.68	0.36	0.67
South Dakota	0.43	0.39	0.37	0.30	0.31	0.36
Tennessee	0.77	0.62	0.36	0.32	0.26	0.47
Texas	0.58	0.53	0.44	0.41	0.42	0.48
Utah	0.87	0.86	0.73	0.55	0.42	0.69
Vermont	1.58	1.60	1.54	1.51	1.46	1.54
Virginia	0.53	0.53	0.49	0.42	0.34	0.46
Washington	**1.04**	**1.08**	**1.04**	**0.97**	**0.80**	**0.99**
West Virginia	1.08	1.02	0.99	0.96	0.93	1.00
Wisconsin	1.38	1.32	1.19	1.07	0.85	1.16
Wyoming	1.47	1.42	1.15	0.73	0.65	1.08
U.S. Average	1.00	0.90	0.79	0.72	0.65	0.81
Washington's Rank	**28**	**33**	**39**	**39**	**36**	**34**

Source: U.S. Department of Labor, Employment, and Training Administration, 2018

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

	2008	2010	2012	2014	2016	2008-2016
Alabama	2.90	2.45	1.97	1.81	1.85	2.20
Alaska	3.97	3.10	3.01	2.68	2.74	3.10
Arizona	1.67	1.71	1.61	1.60	1.50	1.62
Arkansas	1.61	1.18	1.19	1.08	1.06	1.22
California	2.72	2.68	2.92	3.48	3.24	3.01
Colorado	1.76	1.39	1.42	1.50	1.56	1.53
Connecticut	2.46	2.55	2.99	2.87	2.74	2.72
Delaware	2.96	1.85	1.77	2.31	2.32	2.24
Florida	2.20	1.70	1.82	1.82	1.66	1.84
Georgia	2.29	2.08	1.88	1.75	1.80	1.96
Hawaii	2.08	1.70	1.66	1.85	1.96	1.85
Idaho	2.12	1.98	2.02	2.01	1.79	1.98
Illinois	2.79	3.05	2.83	2.35	2.23	2.65
Indiana	1.23	1.16	1.16	1.06	1.05	1.13
Iowa	1.86	1.82	1.90	1.88	1.86	1.86
Kansas	1.77	1.55	1.54	1.55	1.41	1.56
Kentucky	2.96	2.29	1.96	1.51	1.52	2.05
Louisiana	2.76	2.06	2.06	2.23	2.11	2.24
Maine	3.04	2.52	2.24	2.15	2.02	2.39
Maryland	1.72	1.63	1.68	1.64	1.50	1.63
Massachusetts	1.39	1.54	1.37	1.17	1.29	1.35
Michigan	2.15	2.12	1.73	1.68	1.57	1.85
Minnesota	2.33	2.27	2.03	1.99	1.91	2.11
Mississippi	2.33	1.96	1.49	1.59	1.70	1.81
Missouri	2.20	1.90	1.62	1.98	1.92	1.92
Montana	3.50	3.33	2.50	2.21	2.10	2.73
Nebraska	2.15	1.97	1.71	1.78	1.67	1.86
Nevada	2.58	2.13	1.33	1.26	1.31	1.72
New Hampshire	2.70	2.45	2.40	2.18	1.96	2.34
New Jersey	2.66	2.53	2.74	2.82	2.92	2.73
New Mexico	2.15	1.91	1.88	1.99	1.92	1.97
New York	2.55	2.34	2.82	2.75	2.83	2.66
North Carolina	2.43	2.12	1.90	1.85	1.91	2.04
North Dakota	1.08	1.02	1.01	0.88	0.89	0.98
Ohio	3.32	2.24	1.84	1.74	1.45	2.12
Oklahoma	2.89	2.87	2.77	2.55	2.23	2.66
Oregon	1.88	1.69	1.58	1.37	1.28	1.56
Pennsylvania	2.68	2.32	2.15	2.00	1.84	2.20
Rhode Island	2.26	2.02	1.99	1.99	2.20	2.09
South Carolina	2.74	2.38	2.04	2.00	1.94	2.22
South Dakota	2.08	2.02	1.91	1.86	1.67	1.91
Tennessee	2.44	2.19	2.02	1.95	1.68	2.06
Texas	2.61	2.38	1.60	1.61	1.45	1.93
Utah	1.63	1.46	1.35	1.31	1.27	1.40
Vermont	3.14	2.22	2.07	2.33	2.02	2.36
Virginia	1.43	1.39	1.20	1.17	1.24	1.29
Washington	**1.98**	**2.04**	**2.11**	**2.00**	**1.97**	**2.02**
West Virginia	1.86	1.84	1.55	1.37	1.22	1.57
Wisconsin	2.12	2.21	2.15	1.92	2.06	2.09
Wyoming	2.06	1.79	1.74	1.76	1.87	1.84
50 State Average*	2.32	2.06	1.92	1.88	1.82	2.00
Washington's Rank	**14**	**25**	**38**	**34**	**36**	**27**

Source: Oregon Workers' Compensation Premium Rate Rankings, 2016
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

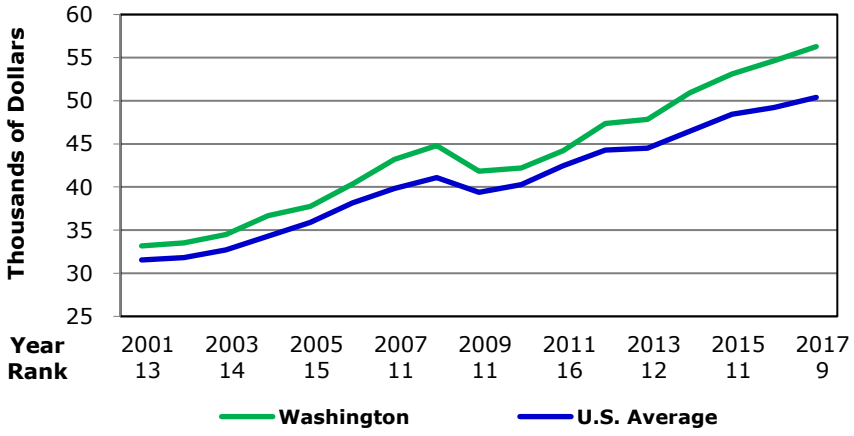
- **Washington's rank improved from 7th to 5th best in the nation in *Economic Growth and Competitiveness* this year.**
- **The state's rank improved in four indicators, worsened in two, and remained unchanged in four.**

Per Capita Personal Income

Washington is 9th 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 2017, per capita personal income in Washington was $56,283. This is about $6,000 more than the U.S. average of $50,392.

Figure 3.1: Per Capita Personal Income



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

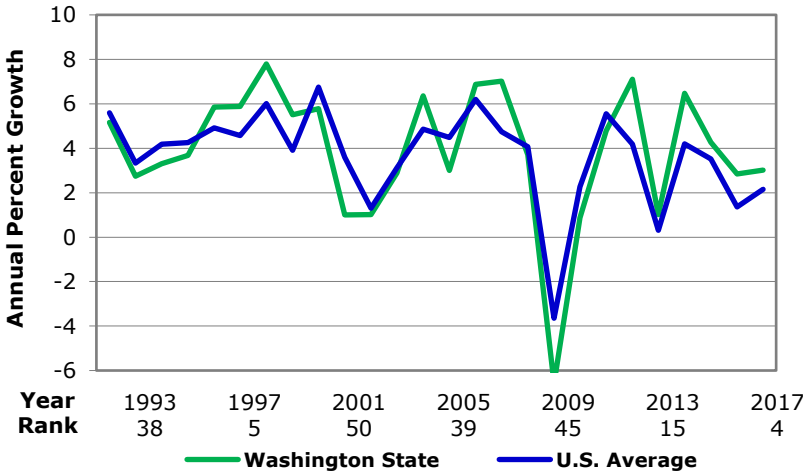
Washington's ranking also improved from 11th in 2016 to 9th in 2017. Washington's five year average is $52,564, which is also higher than the U.S. average of $47,800. Washington has been in the top 15 since the start of our collected data in 1969.

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 2016, net earnings by place of residence for Washington residents totaled $263.1 billion, which accounted for 63.1 percent of total personal income. Income from transfer payments was $61.7 billion, and income from dividends, interest, and rent was $91.87 billion, representing 14.8 and 22 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 2017

WA per capita personal income grew by 3 percent, the 4th 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 3.0 percent in 2017, up by 0.2 percentage point from 2016. Washington's ranking also improved to 4th in the nation. Washington's ranking has greatly improved over the years. In 2009 per capita income growth was -6.6 percent, making Washington 45th in the nation. In 2001 Washington was 50th. From 2013-2017 Washington's average ranking was 2nd in the nation.

Regional Price Parities – Relative Value of $100

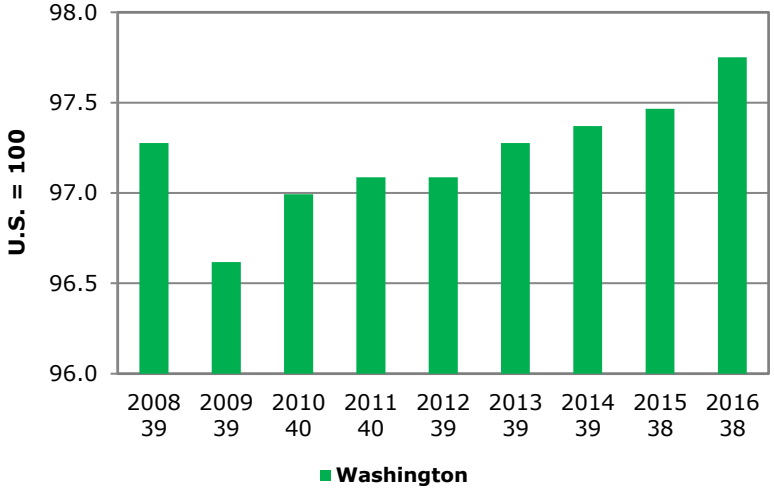
RPPs measure geographic differences in price levels

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 5 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 2016, the relative value of $100 in Washington was $97.8. Washington's ranking in 2016 stayed at 38th in the nation. In the past since 2008 Washington's price parity rankings have been either 38th, 39th or 40th. Washington's five year average is $97.4.

Figure 3.3: Washington Regional Price Parity



Source: Bureau of Economic Analysis, U.S. Department of Commerce, data through 2016

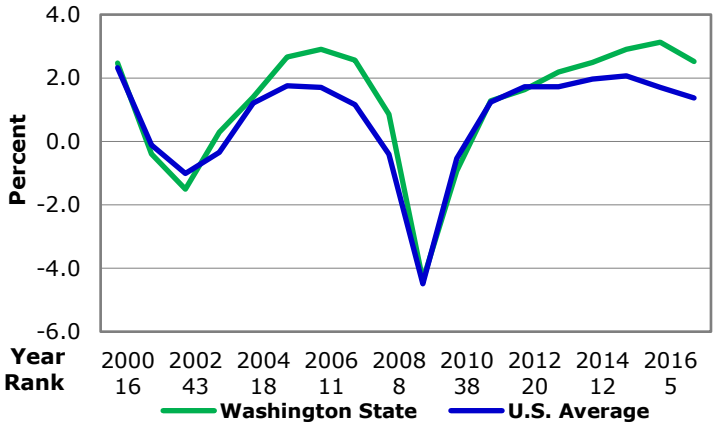
Total Employment Growth Rate

In 2017 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 9th 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 2.5 percent, but Washington's ranking remained at 5th in the nation. In 2016 and 2017 Washington had its best ranking since 1990. The U.S. average in 2017 was 1.4 percent. From 2013 to 2017 Washington's average employment growth rate was 2.6 percent, and the U.S. average was 1.8 percent.

Figure 3.4: Total Employment Growth Rate



Source: U.S. Bureau of Labor Statistics; data through 2017

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.

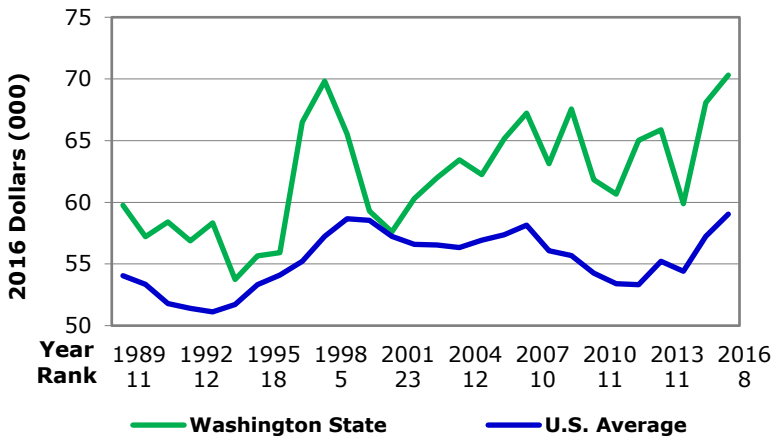
The standard error for Washington's 2016 median household income estimate is $2,092

Annual median household income estimates for states are produced by the U.S. Census Bureau. The data presented here are in 2016 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 2016 median household income estimate is plus or minus $2,092 compared to $436 for the United States.

The state's median income increased to $70,310 in 2016

Real median household income increased to $70,310 in 2016 from $67,243 from the year before. Washington has always been above the U.S. average. The U.S. average for 2016 is $58,943. The five year average for Washington is $65,186, around $9,000 higher than the five year U.S. average of $55,857. Washington's five year ranking is 11th in the nation.

Figure 3.5: Median Household Income



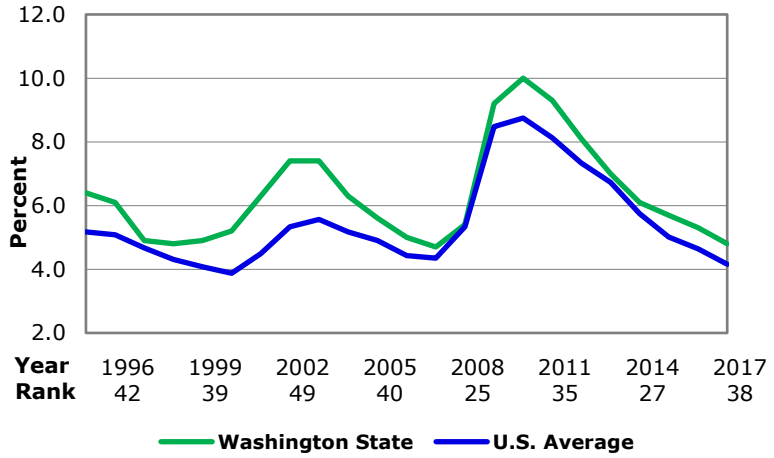
Source: U.S. Department of Commerce, Bureau of the Census; data through 2016

Unemployment Rate

Washington ranked 38th in the nation for unemployment rate

Washington's unemployment rate has declined from 5.3 in 2016 to 4.8 in 2017. This is the lowest it has been since the recession. Washington's unemployment rate has always been above the U.S. average. The 2017 U.S. average was 4.2. Despite the improvement of Washington's unemployment rate, Washington's rank fell one place to 38th in the nation. Washington's five year average unemployment rate is 5.8, 31st in the nation. The U.S. five year average is 5.3.

Figure 3.6: Unemployment Rate



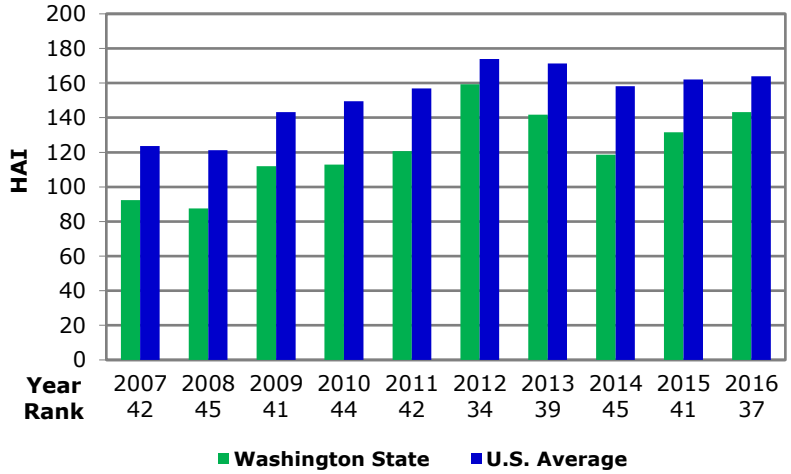
Source: U.S. Department of Labor, Bureau of Labor Statistics; data through 2017

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 2016

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 2016 was 131, placing it 37th in the nation.

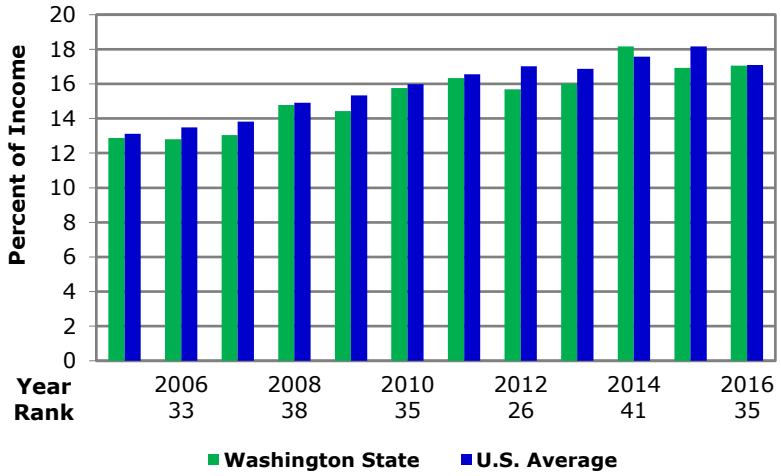
In 2016 Washington's HAI was 131. The U.S. average HAI was 164. Washington has historically been below the U.S. average HAI. Washington's HAI decreased by one point from the year before, but Washington's ranking improved to 37th in the nation from 41st. Washington's five year average HAI is 134, placing it at 43rd 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 2016

In 2016, Washington ranked 16th worst in the nation for income spent on rent

In all states, renters spend less than 25 percent of their income on rent in 2017. Washington residents spent 17.1 percent of their income on rent 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 5-year average for Washington is 16.8 percent, while the national 5-year average is slightly higher at 17.3 percent. Washington ranked 33rd 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-two major occupational groups, which can be broken down into 840 individual occupations. Total average state wages are shown in Table 3.11 and state wages for major groups are presented in Table 3.12. 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 5th overall.

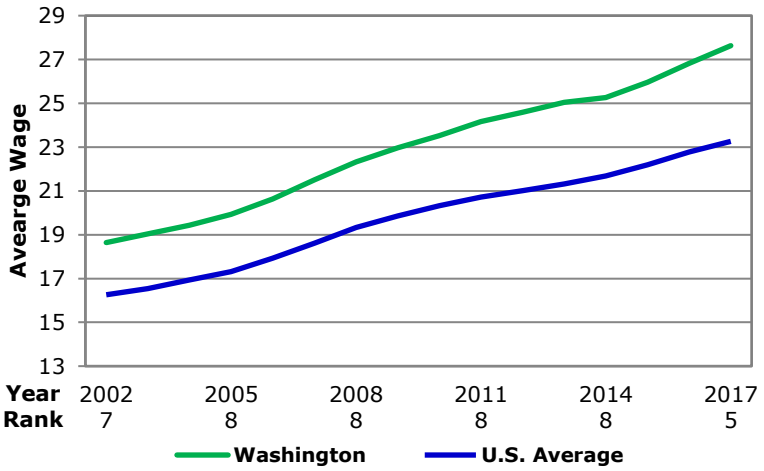
In 2017, Washington ranked in the top ten nationally in seventeen out of twenty-two categories. The state reaches a ranking of 1st in Computer and Mathematical and ranks 2nd in Production, Personal Care and Service Production, and Food Preparation and Serving. Washington ranked lowest in the category of Farming, Fishing and Forestry, with a ranking of 19th in the nation. Washington's total average hourly wages were $27.63 in 2017. This is an increase of $0.80 from 2016. Washington's ranking also improved to 5th in the nation. This is the best the ranking has ever been. For 16 years the ranking has been either 7th or 8th. Washington has also been consistently higher than the U.S. average. From 2013 to 2017 the average hourly wage was $26.15.

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.

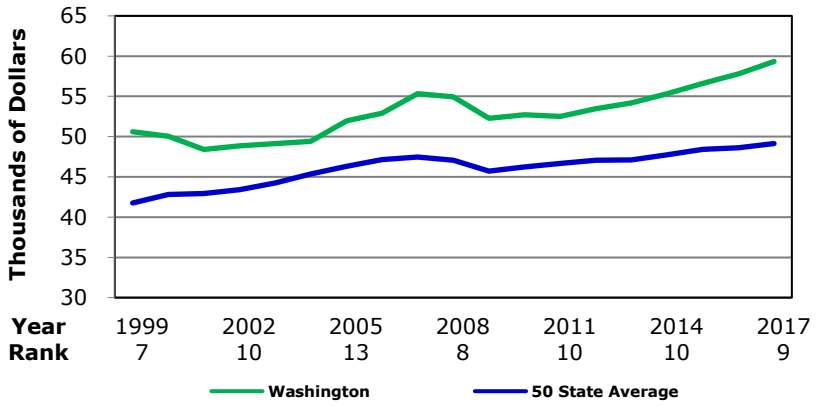
Figure 3.9: Total Average Wages



Source: U.S. Department of Commerce, Bureau of Labor Statistics, data through March 2017

Real Per Capita GDP

Figure 3.10: Real Per Capita GDP



Source: Bureau of Economic Analysis, data through 2017

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 2009 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 9th best in the nation in real per capita GDP

Washington's per capita GDP increased from $57,796 to $59,333 in 2017 while the state's rank remained unchanged at 9th in the nation for the third straight year. The 50 state average was $49,142 in 2017. The five year average for Washington State is $56,656. Washington's rank in that same period is 9th.

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

	2013	2014	2015	2016	2017	2013-17
Alabama	35,792	36,903	38,238	38,918	39,976	37,965
Alaska	51,463	54,621	56,507	55,674	56,042	54,861
Arizona	36,605	38,127	39,731	40,546	41,633	39,328
Arkansas	36,007	38,007	39,060	39,722	40,791	38,717
California	48,555	51,317	54,664	56,308	58,272	53,823
Colorado	46,869	50,021	51,956	52,097	53,504	50,889
Connecticut	64,016	66,405	68,155	69,094	70,121	67,558
Delaware	43,850	45,116	47,069	47,837	49,125	46,599
Florida	40,791	43,045	45,388	45,855	46,858	44,387
Georgia	37,183	39,142	41,020	42,146	43,270	40,552
Hawaii	44,590	46,640	48,823	50,358	51,939	48,470
Idaho	35,761	37,258	38,931	39,543	40,507	38,400
Illinois	46,607	48,809	50,745	51,679	52,808	50,130
Indiana	39,158	40,482	41,862	43,091	44,165	41,752
Iowa	43,217	44,351	45,800	46,056	45,996	45,084
Kansas	45,865	46,565	47,009	47,221	47,603	46,853
Kentucky	35,596	37,021	38,504	38,934	39,393	37,890
Louisiana	40,100	42,004	42,835	42,257	43,491	42,137
Maine	39,703	41,209	42,875	44,094	45,072	42,591
Maryland	52,653	54,036	56,197	57,972	59,524	56,076
Massachusetts	57,145	59,226	62,755	64,122	65,890	61,828
Michigan	39,213	40,835	43,072	44,231	45,255	42,521
Minnesota	47,274	49,248	51,139	51,990	53,043	50,539
Mississippi	33,358	34,257	34,804	35,524	36,346	34,858
Missouri	39,864	41,141	42,406	42,939	43,661	42,002
Montana	39,602	40,862	42,637	43,107	43,907	42,023
Nebraska	45,905	48,425	49,572	50,016	50,395	48,863
Nevada	38,938	40,737	43,128	43,579	44,626	42,202
New Hampshire	51,611	52,400	54,543	55,945	57,574	54,415
New Jersey	55,425	57,518	60,069	61,240	62,554	59,361
New Mexico	34,753	36,767	37,938	38,393	39,023	37,375
New York	54,388	56,111	58,324	59,289	60,991	57,821
North Carolina	37,782	39,531	41,351	42,203	43,303	40,834
North Dakota	55,742	58,202	55,643	54,801	54,643	55,806
Ohio	40,694	42,200	43,803	44,561	45,615	43,375
Oklahoma	42,713	45,215	43,999	42,717	43,449	43,619
Oregon	39,582	41,866	44,424	45,482	46,361	43,543
Pennsylvania	46,132	47,978	49,815	50,730	52,096	49,350
Rhode Island	46,326	47,831	49,744	50,373	51,503	49,155
South Carolina	35,307	37,042	38,802	39,527	40,421	38,220
South Dakota	44,758	46,089	47,882	48,051	48,281	47,012
Tennessee	38,838	40,156	42,156	43,338	44,266	41,751
Texas	43,390	45,861	46,787	46,204	46,942	45,837
Utah	36,092	37,726	39,775	41,018	42,043	39,331
Vermont	45,672	47,203	49,002	50,084	51,114	48,615
Virginia	48,496	50,160	52,189	52,941	54,244	51,606
Washington	**47,846**	**50,942**	**53,119**	**54,632**	**56,283**	**52,564**
West Virginia	34,663	35,747	36,566	36,673	37,924	36,315
Wisconsin	42,774	44,351	46,025	46,809	47,850	45,562
Wyoming	52,749	56,379	56,322	55,172	56,724	55,469
U.S. Average*	44,489	46,486	48,429	49,204	50,392	47,800
Washington's Rank	**12**	**11**	**11**	**11**	**9**	**11**

Source: Bureau of Economic Analysis, 2018

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

	2013	2014	2015	2016	2017	2013-17
Alabama	0.8	3.1	3.6	1.8	2.7	2.4
Alaska	-2.3	6.1	3.5	-1.5	0.7	1.3
Arizona	1.4	4.2	4.2	2.1	2.7	2.9
Arkansas	-0.4	5.6	2.8	1.7	2.7	2.5
California	0.4	5.7	6.5	3.0	3.5	3.8
Colorado	3.9	6.7	3.9	0.3	2.7	3.5
Connecticut	-1.5	3.7	2.6	1.4	1.5	1.6
Delaware	0.6	2.9	4.3	1.6	2.7	2.4
Florida	-0.5	5.5	5.4	1.0	2.2	2.7
Georgia	0.8	5.3	4.8	2.7	2.7	3.3
Hawaii	0.4	4.6	4.7	3.1	3.1	3.2
Idaho	3.0	4.2	4.5	1.6	2.4	3.1
Illinois	2.1	4.7	4.0	1.8	2.2	3.0
Indiana	0.8	3.4	3.4	2.9	2.5	2.6
Iowa	1.4	2.6	3.3	0.6	-0.1	1.6
Kansas	2.4	1.5	1.0	0.5	0.8	1.2
Kentucky	0.0	4.0	4.0	1.1	1.2	2.1
Louisiana	0.2	4.7	2.0	-1.3	2.9	1.7
Maine	-0.3	3.8	4.0	2.8	2.2	2.5
Maryland	-1.3	2.6	4.0	3.2	2.7	2.2
Massachusetts	-0.1	3.6	6.0	2.2	2.8	2.9
Michigan	1.3	4.1	5.5	2.7	2.3	3.2
Minnesota	0.1	4.2	3.8	1.7	2.0	2.4
Mississippi	1.3	2.7	1.6	2.1	2.3	2.0
Missouri	0.0	3.2	3.1	1.3	1.7	1.8
Montana	-0.7	3.2	4.3	1.1	1.9	2.0
Nebraska	-0.4	5.5	2.4	0.9	0.8	1.8
Nevada	-0.7	4.6	5.9	1.0	2.4	2.6
New Hampshire	-0.4	1.5	4.1	2.6	2.9	2.1
New Jersey	0.3	3.8	4.4	1.9	2.1	2.5
New Mexico	-1.9	5.8	3.2	1.2	1.6	2.0
New York	1.3	3.2	3.9	1.7	2.9	2.6
North Carolina	-2.0	4.6	4.6	2.1	2.6	2.4
North Dakota	-0.9	4.4	-4.4	-1.5	-0.3	-0.5
Ohio	1.0	3.7	3.8	1.7	2.4	2.5
Oklahoma	3.9	5.9	-2.7	-2.9	1.7	1.2
Oregon	1.1	5.8	6.1	2.4	1.9	3.5
Pennsylvania	0.5	4.0	3.8	1.8	2.7	2.6
Rhode Island	0.3	3.2	4.0	1.3	2.2	2.2
South Carolina	0.1	4.9	4.8	1.9	2.3	2.8
South Dakota	-0.9	3.0	3.9	0.4	0.5	1.4
Tennessee	0.1	3.4	5.0	2.8	2.1	2.7
Texas	0.5	5.7	2.0	-1.2	1.6	1.7
Utah	1.5	4.5	5.4	3.1	2.5	3.4
Vermont	1.6	3.4	3.8	2.2	2.1	2.6
Virginia	-1.7	3.4	4.0	1.4	2.5	1.9
Washington	**1.0**	**6.5**	**4.3**	**2.8**	**3.0**	**3.5**
West Virginia	-0.5	3.1	2.3	0.3	3.4	1.7
Wisconsin	0.5	3.7	3.8	1.7	2.2	2.4
Wyoming	-0.1	6.9	-0.1	-2.0	2.8	1.5
U.S. Average*	0.3	4.2	3.5	1.4	2.2	2.3
Washington's Rank	**15**	**3**	**17**	**6**	**4**	**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

	2012	2013	2014	2015	2016	2012-16
Alabama	113.5	113.9	114.8	115.3	115.5	114.6
Alaska	94.9	95.3	94.1	94.7	94.9	94.8
Arizona	103.0	103.6	104.2	104.2	104.3	103.8
Arkansas	113.9	113.9	115.1	114.5	115.1	114.5
California	88.6	88.4	88.0	88.0	87.4	88.1
Colorado	98.9	97.9	98.0	97.5	97.1	97.9
Connecticut	91.6	92.2	92.1	92.0	92.0	92.0
Delaware	98.8	99.4	98.9	99.9	99.8	99.4
Florida	85.0	85.5	84.6	85.3	86.3	85.3
Georgia	100.9	100.8	100.6	100.5	100.3	100.6
Hawaii	108.5	108.3	108.7	108.0	108.6	108.4
Idaho	84.9	84.5	84.5	84.1	84.5	84.5
Illinois	107.1	107.3	106.8	107.1	107.5	107.2
Indiana	99.3	100.3	100.7	100.8	101.1	100.4
Iowa	109.4	109.5	110.1	110.4	110.7	110.0
Kansas	110.9	110.4	110.7	110.6	110.9	110.7
Kentucky	110.4	109.5	110.0	110.4	110.5	110.2
Louisiana	112.6	112.0	113.3	113.0	113.9	112.9
Maine	109.4	109.6	110.0	110.5	110.6	110.0
Maryland	101.6	101.5	102.0	101.4	101.6	101.6
Massachusetts	90.8	91.0	90.7	91.2	91.3	91.0
Michigan	93.8	93.7	93.2	93.2	92.8	93.3
Minnesota	105.8	106.0	106.8	107.2	107.2	106.6
Mississippi	102.5	102.6	102.6	102.7	102.6	102.6
Missouri	115.6	114.7	116.0	116.1	115.7	115.6
Montana	112.0	111.2	111.4	111.6	111.7	111.6
Nebraska	107.0	105.7	105.6	105.2	106.3	105.9
Nevada	110.4	110.3	110.5	110.4	110.5	110.4
New Hampshire	101.3	101.3	102.6	102.6	102.7	102.1
New Jersey	94.7	94.9	94.6	94.8	94.4	94.7
New Mexico	87.4	88.2	87.9	88.3	88.3	88.0
New York	105.3	104.9	105.6	106.3	106.8	105.8
North Carolina	86.7	86.8	86.4	86.7	86.5	86.6
North Dakota	109.1	108.9	109.4	109.8	110.0	109.4
Ohio	109.9	109.1	109.2	108.2	109.3	109.1
Oklahoma	111.9	111.7	111.9	111.9	112.0	111.9
Oregon	111.2	111.1	111.7	111.5	112.4	111.6
Pennsylvania	101.3	101.1	101.2	101.1	100.2	101.0
Rhode Island	101.6	101.4	101.9	101.9	101.6	101.7
South Carolina	101.2	101.2	100.2	100.5	100.4	100.7
South Dakota	110.1	110.5	111.1	110.9	110.7	110.7
Tennessee	112.5	113.6	113.6	113.3	113.3	113.3
Texas	110.1	110.3	111.4	111.4	110.9	110.8
Utah	104.0	103.8	103.6	103.3	103.2	103.6
Vermont	103.0	102.4	103.3	103.4	102.8	103.0
Virginia	99.2	99.1	97.6	97.8	98.4	98.4
Washington	**97.1**	**97.3**	**97.4**	**97.5**	**97.8**	**97.4**
West Virginia	96.6	96.0	95.3	95.2	94.8	95.6
Wisconsin	112.9	112.9	113.4	112.7	114.2	113.2
Wyoming	107.0	107.3	107.2	107.3	107.8	107.3
U.S. Average*	100.0	100.0	100.0	100.0	100.0	100.0
Washington Rank	**39**	**39**	**39**	**38**	**38**	**39**

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)

	2013	2014	2015	2016	2017	2013-17
Alabama	0.9	1.1	1.4	1.4	2.0	1.3
Alaska	0.4	0.4	0.2	-1.9	-1.1	-0.4
Arizona	2.3	2.0	2.6	2.6	2.5	2.4
Arkansas	0.0	1.0	1.8	1.5	1.0	1.0
California	2.6	2.8	3.1	2.6	2.0	2.6
Colorado	3.0	3.5	3.1	2.2	2.3	2.8
Connecticut	0.8	0.7	0.8	0.3	0.1	0.5
Delaware	2.1	2.3	2.3	1.0	0.7	1.7
Florida	2.5	3.2	3.6	3.4	2.2	3.0
Georgia	2.0	2.8	2.8	2.7	1.7	2.4
Hawaii	2.0	1.4	1.8	1.4	0.8	1.5
Idaho	2.5	2.6	2.7	3.5	2.9	2.9
Illinois	0.9	1.3	1.5	0.7	0.8	1.1
Indiana	1.2	1.4	1.9	1.5	0.7	1.4
Iowa	1.3	1.2	0.9	0.6	0.1	0.8
Kansas	1.1	1.4	0.8	0.5	-0.4	0.7
Kentucky	1.1	1.5	1.5	1.5	0.3	1.2
Louisiana	1.4	1.6	0.5	-1.2	0.0	0.5
Maine	0.6	0.6	0.9	1.1	0.9	0.8
Maryland	1.0	0.9	1.6	1.3	0.5	1.0
Massachusetts	1.7	2.0	2.0	1.7	1.3	1.7
Michigan	1.9	1.8	1.5	1.9	1.1	1.6
Minnesota	1.7	1.4	1.5	1.4	1.2	1.4
Mississippi	0.8	0.9	1.2	1.0	0.6	0.9
Missouri	1.0	1.0	2.1	1.6	0.9	1.3
Montana	1.9	1.0	1.9	1.3	1.0	1.4
Nebraska	1.2	1.3	1.4	0.8	0.3	1.0
Nevada	2.6	3.6	3.5	3.3	3.2	3.2
New Hampshire	0.8	1.1	1.6	1.9	1.0	1.3
New Jersey	1.2	0.8	1.1	1.5	1.3	1.2
New Mexico	0.9	1.0	1.0	0.3	0.0	0.6
New York	1.5	1.8	1.8	1.5	1.3	1.6
North Carolina	1.8	2.0	2.4	2.3	1.7	2.1
North Dakota	3.6	3.8	-1.7	-4.1	-1.0	0.1
Ohio	1.2	1.5	1.5	1.1	0.8	1.2
Oklahoma	1.3	1.3	0.7	-1.0	0.6	0.6
Oregon	2.1	2.9	3.4	2.9	2.2	2.7
Pennsylvania	0.3	0.8	0.8	0.8	1.1	0.8
Rhode Island	1.3	1.5	1.4	1.0	0.8	1.2
South Carolina	2.0	2.6	2.8	2.4	1.8	2.3
South Dakota	0.9	1.4	1.1	1.0	0.4	1.0
Tennessee	1.7	2.3	2.5	2.5	1.5	2.1
Texas	3.0	3.1	2.4	1.3	1.6	2.3
Utah	3.2	2.9	3.8	3.6	2.9	3.3
Vermont	0.7	1.0	0.8	0.3	0.3	0.6
Virginia	0.7	0.6	2.0	1.5	0.9	1.1
Washington	**2.2**	**2.5**	**2.9**	**3.1**	**2.5**	**2.6**
West Virginia	-0.2	-0.4	-0.5	-1.2	-0.4	-0.5
Wisconsin	1.0	1.5	1.4	1.1	0.7	1.2
Wyoming	0.2	1.3	-0.7	-3.9	0.2	-0.6
U.S. Average	1.7	2.0	2.1	1.7	1.4	1.8
Washington's Rank	**10**	**12**	**7**	**5**	**5**	**7**

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

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

	2012	2013	2014	2015	2016	2012-16
Alabama	44,869	48,150	42,327	44,509	47,221	45,415
Alaska	65,705	73,743	67,707	75,112	75,723	71,598
Arizona	48,564	53,533	49,311	52,248	57,100	52,151
Arkansas	40,279	40,066	44,974	42,798	45,907	42,805
California	58,863	61,860	60,557	63,636	66,637	62,311
Colorado	59,105	69,103	61,010	66,596	70,566	65,276
Connecticut	66,323	70,506	70,242	72,889	75,923	71,177
Delaware	50,555	55,039	57,588	57,756	58,046	55,797
Florida	47,560	49,383	46,193	48,825	51,176	48,627
Georgia	49,676	47,816	49,612	50,768	53,527	50,280
Hawaii	58,081	65,361	71,305	64,514	72,133	66,279
Idaho	49,471	49,317	53,499	51,624	56,564	52,095
Illinois	53,410	54,883	54,979	60,413	61,386	57,014
Indiana	47,650	50,322	48,115	51,983	56,094	50,833
Iowa	55,169	61,211	57,876	60,855	59,094	58,841
Kansas	51,619	48,658	53,505	54,865	56,810	53,091
Kentucky	42,414	45,666	42,835	42,387	45,369	43,734
Louisiana	40,348	47,239	42,455	45,922	42,196	43,632
Maine	50,747	55,921	51,769	50,756	50,856	52,010
Maryland	74,157	70,569	76,253	73,594	73,760	73,667
Massachusetts	65,713	63,625	63,224	67,861	72,266	66,538
Michigan	51,631	57,559	52,065	54,203	57,091	54,510
Minnesota	63,792	65,452	67,321	68,730	70,218	67,103
Mississippi	37,825	32,905	35,562	40,037	41,099	37,486
Missouri	51,372	47,115	56,695	59,196	55,016	53,879
Montana	46,545	43,958	51,161	51,395	57,075	50,027
Nebraska	53,883	58,633	56,935	60,474	59,374	57,860
Nevada	48,863	52,755	49,932	52,008	55,431	51,798
New Hampshire	70,011	70,311	73,481	75,675	76,260	73,148
New Jersey	68,847	64,872	65,318	68,357	68,468	67,172
New Mexico	44,827	40,870	46,740	45,119	48,451	45,201
New York	49,221	50,842	54,372	58,005	61,437	54,775
North Carolina	42,896	47,149	46,838	50,797	53,764	48,289
North Dakota	57,568	60,189	60,800	57,415	60,184	59,231
Ohio	45,809	51,638	49,701	53,301	53,985	50,887
Oklahoma	49,971	46,971	47,253	47,077	50,943	48,443
Oregon	53,448	49,858	58,943	60,834	59,135	56,444
Pennsylvania	53,581	56,123	55,236	60,389	60,979	57,262
Rhode Island	57,877	57,311	58,700	55,701	61,528	58,223
South Carolina	45,836	44,327	44,981	46,360	54,336	47,168
South Dakota	51,012	54,350	53,114	55,065	57,450	54,198
Tennessee	44,384	44,121	43,766	47,330	51,344	46,189
Texas	53,604	52,307	53,937	56,473	58,146	54,893
Utah	60,226	62,117	63,456	66,258	67,481	63,908
Vermont	57,378	66,662	60,778	59,494	60,837	61,030
Virginia	66,721	67,063	66,231	61,486	66,451	65,590
Washington	**64,197**	**65,043**	**59,136**	**67,243**	**70,310**	**65,186**
West Virginia	44,960	43,824	39,597	42,824	44,354	43,112
Wisconsin	54,794	52,633	58,147	55,425	59,817	56,163
Wyoming	59,371	68,623	55,754	60,925	57,829	60,500
U.S. Median*	53,415	55,151	55,026	56,750	58,943	55,857
Washington's Rank	**8**	**11**	**15**	**8**	**8**	**11**

Source: U.S. Department of Commerce, Bureau of the Census, 2018

Table 3.6
Economic Growth and Competitiveness
Unemployment Rate

	2013	2014	2015	2016	2017	2013-17
Alabama	7.2	6.8	6.1	5.9	4.4	6.1
Alaska	7.0	6.9	6.5	6.9	7.2	6.9
Arizona	7.7	6.8	6.1	5.4	4.9	6.2
Arkansas	7.2	6.0	5.0	3.9	3.7	5.2
California	8.9	7.5	6.2	5.5	4.8	6.6
Colorado	6.9	5.0	3.9	3.3	2.8	4.4
Connecticut	7.8	6.6	5.7	5.1	4.7	6.0
Delaware	6.7	5.7	4.9	4.5	4.6	5.3
Florida	7.2	6.3	5.5	4.8	4.2	5.6
Georgia	8.2	7.1	6.0	5.4	4.7	6.3
Hawaii	4.9	4.4	3.6	2.9	2.4	3.6
Idaho	6.1	4.9	4.2	3.8	3.2	4.4
Illinois	9.0	7.1	6.0	5.8	5.0	6.6
Indiana	7.7	6.0	4.8	4.4	3.5	5.3
Iowa	4.7	4.2	3.8	3.6	3.1	3.9
Kansas	5.3	4.5	4.2	4.0	3.6	4.3
Kentucky	8.0	6.5	5.3	5.1	4.9	6.0
Louisiana	6.7	6.4	6.3	6.0	5.1	6.1
Maine	6.6	5.6	4.4	3.8	3.3	4.7
Maryland	6.6	5.8	5.1	4.4	4.1	5.2
Massachusetts	6.7	5.7	4.8	3.9	3.7	5.0
Michigan	8.8	7.2	5.4	5.0	4.6	6.2
Minnesota	5.0	4.2	3.7	3.9	3.5	4.1
Mississippi	8.5	7.5	6.4	5.8	5.1	6.7
Missouri	6.7	6.1	5.0	4.6	3.8	5.2
Montana	5.4	4.7	4.2	4.1	4.0	4.5
Nebraska	3.8	3.3	3.0	3.1	2.9	3.2
Nevada	9.6	7.9	6.8	5.7	5.0	7.0
New Hampshire	5.1	4.3	3.4	2.9	2.7	3.7
New Jersey	8.2	6.8	5.8	5.0	4.6	6.1
New Mexico	6.9	6.7	6.5	6.7	6.2	6.6
New York	7.7	6.3	5.3	4.8	4.7	5.8
North Carolina	8.0	6.3	5.7	5.1	4.6	5.9
North Dakota	2.9	2.7	2.8	3.1	2.6	2.8
Ohio	7.5	5.8	4.9	5.0	5.0	5.6
Oklahoma	5.3	4.5	4.4	4.8	4.3	4.7
Oregon	7.9	6.8	5.6	4.8	4.1	5.8
Pennsylvania	7.4	5.9	5.3	5.4	4.9	5.8
Rhode Island	9.3	7.7	6.0	5.2	4.5	6.5
South Carolina	7.6	6.5	6.0	5.0	4.3	5.9
South Dakota	3.8	3.4	3.1	3.0	3.3	3.3
Tennessee	7.8	6.6	5.6	4.7	3.7	5.7
Texas	6.3	5.1	4.4	4.6	4.3	4.9
Utah	4.6	3.8	3.6	3.4	3.2	3.7
Vermont	4.4	4.0	3.6	3.2	3.0	3.6
Virginia	5.7	5.2	4.5	4.1	3.8	4.7
Washington	**7.0**	**6.1**	**5.7**	**5.3**	**4.8**	**5.8**
West Virginia	6.8	6.6	6.7	6.1	5.2	6.3
Wisconsin	6.7	5.4	4.5	4.0	3.3	4.8
Wyoming	4.7	4.1	4.3	5.3	4.2	4.5
U.S. Average *	6.7	5.7	5.0	4.6	4.2	5.3
Washington's Rank	**27**	**27**	**34**	**37**	**38**	**31**

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

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

	2012	2013	2014	2015	2016	2012-16
Alabama	207	214	180	184	197	197
Alaska	152	159	142	161	161	155
Arizona	182	176	149	149	158	163
Arkansas	213	200	213	197	212	207
California	96	91	78	79	79	85
Colorado	143	157	128	130	128	137
Connecticut	141	144	140	149	157	146
Delaware	127	133	133	134	136	132
Florida	182	176	152	151	147	162
Georgia	198	184	179	177	183	184
Hawaii	66	71	72	63	69	68
Idaho	182	169	173	163	170	171
Illinois	178	177	171	186	187	180
Indiana	221	225	207	220	237	222
Iowa	248	263	232	248	236	246
Kansas	225	205	216	216	223	217
Kentucky	199	206	185	181	190	192
Louisiana	164	184	158	164	152	164
Maine	167	177	158	156	157	163
Maryland	150	138	141	136	137	140
Massachusetts	115	106	100	107	112	108
Michigan	253	268	221	219	221	236
Minnesota	203	198	191	191	189	194
Mississippi	215	184	183	197	205	197
Missouri	216	193	219	222	207	211
Montana	143	126	139	136	150	139
Nebraska	239	241	227	237	228	234
Nevada	184	174	139	130	132	152
New Hampshire	168	165	166	172	173	169
New Jersey	125	115	111	118	119	118
New Mexico	162	140	158	153	165	155
New York	100	100	104	110	116	106
North Carolina	162	167	161	176	185	170
North Dakota	229	212	201	176	186	201
Ohio	204	222	206	217	219	214
Oklahoma	248	220	211	206	219	221
Oregon	136	119	131	128	117	126
Pennsylvania	186	187	178	197	199	189
Rhode Island	140	135	133	128	141	135
South Carolina	192	174	172	173	201	182
South Dakota	216	214	199	200	204	207
Tennessee	183	172	163	175	185	176
Texas	236	216	206	206	205	214
Utah	171	160	152	157	153	159
Vermont	150	167	151	148	155	154
Virginia	159	153	143	132	143	146
Washington	**150**	**142**	**119**	**132**	**131**	**134**
West Virginia	254	232	203	212	214	223
Wisconsin	188	176	188	183	197	187
Wyoming	180	192	148	159	157	167
United States	174	171	158	162	164	166
Washington's Rank	**34**	**39**	**45**	**41**	**37**	**43**

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

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

	2012	2013	2014	2015	2016	2012-16
Alabama	13.7	12.8	14.8	14.5	14.2	14.0
Alaska	18.1	16.4	19.0	17.0	17.4	17.6
Arizona	18.3	16.7	18.7	18.2	17.3	17.8
Arkansas	14.3	14.7	13.5	14.6	14.0	14.2
California	22.5	21.8	23.0	22.6	22.5	22.5
Colorado	16.8	14.9	17.7	17.8	18.0	17.0
Connecticut	15.8	15.0	15.4	15.3	15.0	15.3
Delaware	19.2	18.4	18.0	18.2	18.5	18.4
Florida	20.6	20.4	22.3	21.9	21.8	21.4
Georgia	16.1	17.0	16.8	17.0	16.9	16.8
Hawaii	25.0	22.9	21.4	25.3	22.6	23.4
Idaho	14.6	14.9	14.3	15.3	14.3	14.7
Illinois	16.9	16.9	17.1	16.1	16.3	16.7
Indiana	14.4	14.0	14.8	13.9	13.2	14.1
Iowa	11.7	10.9	11.8	11.7	12.4	11.7
Kansas	12.8	14.0	13.3	13.1	13.0	13.3
Kentucky	14.2	13.8	14.7	15.4	14.7	14.6
Louisiana	18.1	15.8	18.1	16.9	18.7	17.5
Maine	15.8	14.4	15.7	16.5	16.8	15.8
Maryland	16.6	18.2	17.2	18.5	18.9	17.9
Massachusetts	16.9	18.1	18.5	17.9	17.5	17.8
Michigan	14.3	13.1	14.8	14.6	14.2	14.2
Minnesota	13.7	13.8	13.7	14.1	14.2	13.9
Mississippi	16.0	19.3	17.7	16.0	16.4	17.1
Missouri	12.7	14.4	12.1	11.9	13.2	12.9
Montana	15.2	16.4	14.6	15.7	13.8	15.1
Nebraska	12.6	11.8	12.6	12.1	12.8	12.4
Nevada	19.7	18.6	19.6	19.3	18.7	19.2
New Hampshire	15.0	15.1	14.5	14.2	14.4	14.6
New Jersey	17.7	19.2	19.7	19.0	19.7	19.1
New Mexico	17.0	19.1	16.8	17.6	16.9	17.5
New York	23.6	23.4	22.8	21.9	21.2	22.6
North Carolina	17.0	15.8	16.2	15.3	15.0	15.8
North Dakota	12.0	12.4	12.7	14.7	14.1	13.2
Ohio	14.7	13.2	14.0	13.4	13.6	13.8
Oklahoma	12.7	14.0	14.4	15.0	13.9	14.0
Oregon	16.6	18.5	16.2	16.3	18.2	17.2
Pennsylvania	14.6	14.4	14.9	14.1	14.4	14.5
Rhode Island	16.0	16.6	16.3	17.4	16.3	16.5
South Carolina	15.5	16.1	16.3	16.3	14.4	15.7
South Dakota	13.0	11.7	12.2	12.5	12.6	12.4
Tennessee	15.6	16.0	16.3	15.6	14.9	15.7
Texas	15.3	16.3	16.4	16.4	16.7	16.2
Utah	14.8	14.8	14.7	14.7	14.9	14.8
Vermont	15.8	13.8	15.6	16.5	16.1	15.6
Virginia	16.3	16.5	16.9	18.7	17.7	17.2
Washington	**15.7**	**16.0**	**18.2**	**16.9**	**17.1**	**16.8**
West Virginia	12.0	12.6	14.7	14.3	14.1	13.6
Wisconsin	13.8	14.7	13.6	14.5	13.7	14.1
Wyoming	13.2	11.6	14.7	13.7	14.9	13.6
United States	17.0	16.9	17.6	18.2	17.1	17.3
Washington's Rank	**26**	**28**	**41**	**34**	**35**	**33**

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

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

	2013	2014	2015	2016	2017	2013-17
Alabama	19.35	19.66	20.15	20.44	20.76	20.07
Alaska	25.53	25.98	26.81	27.26	27.77	26.67
Arizona	21.33	21.43	21.78	22.26	23.15	21.99
Arkansas	17.95	18.24	18.53	19.03	19.49	18.65
California	25.49	25.91	26.57	27.33	27.50	26.56
Colorado	23.53	23.97	24.61	25.34	25.99	24.69
Connecticut	26.16	26.47	27.06	27.87	28.56	27.22
Delaware	23.68	23.81	24.18	24.48	25.10	24.25
Florida	19.78	20.11	20.60	21.18	21.53	20.64
Georgia	21.17	21.48	21.84	22.38	22.69	21.91
Hawaii	21.84	22.23	22.95	23.76	25.02	23.16
Idaho	18.67	19.12	19.62	20.15	20.31	19.57
Illinois	22.92	23.45	24.02	24.76	25.20	24.07
Indiana	19.61	19.94	20.23	20.64	21.13	20.31
Iowa	19.35	19.77	20.12	20.93	21.50	20.33
Kansas	19.83	20.20	20.64	21.13	21.43	20.65
Kentucky	19.00	19.25	19.65	20.08	20.39	19.67
Louisiana	18.99	19.32	19.62	19.84	19.99	19.55
Maine	19.92	20.26	20.80	21.24	21.78	20.80
Maryland	25.41	25.70	26.27	26.98	27.53	26.38
Massachusetts	27.12	27.70	28.37	29.25	29.86	28.46
Michigan	21.42	21.70	22.26	22.76	23.22	22.27
Minnesota	22.77	23.23	23.91	24.68	25.35	23.99
Mississippi	17.34	17.67	18.08	18.41	18.71	18.04
Missouri	20.20	20.57	20.98	21.45	21.89	21.02
Montana	18.79	19.17	19.53	19.92	20.39	19.56
Nebraska	19.33	19.75	20.49	21.24	21.89	20.54
Nevada	20.30	20.34	20.58	21.17	21.65	20.81
New Hampshire	22.22	22.63	23.42	24.13	24.54	23.39
New Jersey	25.39	25.92	26.42	26.94	27.39	26.41
New Mexico	19.94	20.31	20.76	21.23	21.56	20.76
New York	26.24	26.75	27.42	28.32	28.90	27.53
North Carolina	20.39	20.81	21.24	21.77	22.15	21.27
North Dakota	20.39	21.20	21.95	22.66	23.14	21.87
Ohio	20.76	21.11	21.52	22.08	22.57	21.61
Oklahoma	19.20	19.64	20.11	20.56	20.84	20.07
Oregon	22.01	22.53	23.12	23.90	24.52	23.22
Pennsylvania	21.77	22.00	22.38	22.85	23.44	22.49
Rhode Island	23.47	23.83	24.41	24.96	25.54	24.44
South Carolina	18.75	19.03	19.51	19.97	20.31	19.51
South Dakota	17.56	17.93	18.66	19.27	19.60	18.60
Tennessee	19.33	19.55	19.85	20.36	20.94	20.01
Texas	21.35	21.79	22.38	22.97	23.42	22.38
Utah	20.55	20.94	21.22	21.87	22.33	21.38
Vermont	21.18	21.41	22.15	22.90	23.48	22.22
Virginia	24.10	24.40	24.84	25.53	25.95	24.96
Washington	**25.04**	**25.26**	**25.97**	**26.83**	**27.63**	**26.15**
West Virginia	18.05	18.21	18.80	19.35	19.90	18.86
Wisconsin	20.34	20.62	21.12	21.75	22.24	21.21
Wyoming	21.05	21.60	22.04	22.52	22.91	22.02
U.S. Average *	21.32	21.68	22.19	22.77	23.26	22.24
Washington's Rank	**8**	**8**	**8**	**8**	**5**	**8**

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

Table 3.10
Economic Growth and Competitiveness
Average Hourly Wages, 2017
(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	53.44	34.33	39.36	42.41	31.11	21.11
Alaska	52.22	37.78	39.34	50.28	36.54	25.25
Arizona	48.40	32.79	39.87	40.21	30.49	21.49
Arkansas	42.85	29.77	32.87	33.44	27.74	19.36
California	63.57	40.14	50.66	47.87	39.67	26.44
Colorado	61.91	37.16	45.79	43.46	36.51	23.77
Connecticut	65.74	40.53	44.11	42.38	40.05	27.30
Delaware	66.83	37.28	44.54	42.78	38.18	22.36
Florida	53.95	32.98	36.74	35.63	30.06	21.12
Georgia	55.86	34.59	41.29	38.05	31.41	22.41
Hawaii	50.15	33.07	38.36	39.00	34.37	25.62
Idaho	39.41	30.53	33.76	38.53	26.14	20.43
Illinois	54.25	35.83	41.74	39.39	34.29	23.48
Indiana	45.95	30.47	34.93	34.75	32.25	20.32
Iowa	46.49	31.13	36.87	33.67	28.82	21.08
Kansas	49.77	32.58	35.59	37.08	31.69	19.75
Kentucky	45.21	29.84	33.07	34.84	28.54	20.23
Louisiana	46.72	29.13	30.63	40.06	30.84	20.61
Maine	45.74	31.37	35.98	36.22	29.88	22.36
Maryland	61.85	38.88	47.60	46.45	42.76	24.46
Massachusetts	63.37	40.55	46.38	44.44	40.10	23.25
Michigan	55.21	34.20	37.89	39.50	30.48	22.02
Minnesota	56.21	34.82	41.69	38.83	34.37	22.86
Mississippi	39.27	29.29	32.61	35.43	29.24	18.58
Missouri	51.83	33.22	37.83	37.66	28.91	19.38
Missouri	43.17	29.44	30.63	34.22	26.54	18.94
Nebraska	47.31	31.45	36.33	34.69	29.16	19.61
Nevada	52.31	33.14	36.93	38.09	31.78	24.95
New Hampshire	56.55	34.77	42.43	40.25	35.86	22.02
New Jersey	72.00	40.84	48.34	43.99	45.88	25.96
New Mexico	46.17	31.50	37.62	44.43	39.48	21.80
New York	73.36	45.52	45.85	41.61	36.32	25.26
North Carolina	59.44	35.59	41.53	37.89	32.89	21.49
North Dakota	47.60	30.68	31.92	35.53	32.01	23.53
Ohio	52.88	33.27	38.79	37.86	32.70	21.85
Oklahoma	46.43	30.65	33.44	38.51	31.49	19.54
Oregon	50.57	34.34	41.23	42.81	30.27	23.60
Pennsylvania	59.32	35.24	39.93	37.90	35.48	21.30
Rhode Island	64.40	37.15	41.08	42.43	35.88	24.42
South Carolina	48.44	30.18	34.94	37.35	30.82	20.51
South Dakota	50.37	30.43	30.78	32.23	26.16	19.19
Tennessee	47.01	31.14	35.60	35.55	31.11	19.65
Texas	60.70	37.61	43.00	46.83	36.12	23.39
Utah	45.19	31.30	38.77	37.11	29.81	21.08
Vermont	47.24	31.83	35.25	35.55	37.79	21.13
Virginia	65.79	40.47	48.47	42.68	41.03	24.07
Washington	**60.04**	**38.03**	**51.45**	**45.36**	**35.17**	**24.09**
West Virginia	42.16	29.33	33.53	35.45	27.79	18.24
Wisconsin	51.97	31.23	35.82	34.20	30.08	20.83
Wyoming	48.53	32.85	30.79	37.76	27.40	23.00
U.S. Average	53.10	34.00	38.88	39.25	33.07	22.09
Washington's Rank	**12**	**8**	**1**	**5**	**17**	**10**

Source: "Occupational Employment Statistics," US Department of Commerce, Bureau of Labor Statistics, 2017

Table 3.10 (continued)
Economic Growth and Competitiveness
Average Hourly Wages, 2017
(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	41.86	22.87	21.55	33.62	12.74	17.84
Alaska	47.24	30.66	26.49	47.12	21.14	28.57
Arizona	47.31	22.72	24.82	39.56	15.35	22.61
Arkansas	33.55	21.83	21.85	31.95	12.71	17.4
California	62.09	30.59	34.88	46.22	17.83	28.3
Colorado	51.97	25.88	25.87	40.03	16.51	23.26
Connecticut	53.44	31.16	28.95	44.9	16.96	25.93
Delaware	57.27	26.2	23.32	41	15.9	20.75
Florida	45.38	23.5	24.29	36.12	14.7	19.94
Georgia	50.15	23.75	25.89	36.18	14.21	18.35
Hawaii	43.84	25.45	26.93	46.48	16.92	29.8
Idaho	37.67	20.04	19.45	35.66	14.12	20.42
Illinois	54.63	27.41	25.66	37.79	15.1	25.06
Indiana	41.61	22.83	21.34	35.86	14.57	18.99
Iowa	37.77	24.62	19.14	34.95	15	20.91
Kansas	37.46	21.5	21.21	33.25	13.63	19.03
Kentucky	37.16	23.91	21.26	34.01	14.23	17.15
Louisiana	36.24	21.75	23.98	31.18	12.18	17.44
Maine	36.91	23.33	19.91	39.11	14.67	19.12
Maryland	44.23	30.57	28.62	41.79	16.12	23.9
Massachusetts	59.06	31.94	30.6	45.99	17.27	26.82
Michigan	42.39	25.43	24.57	37.98	14.46	20.64
Minnesota	46.91	26.44	25.82	41.47	16.52	22.79
Mississippi	38.23	21.16	21.05	31.07	12.17	15.67
Missouri	43.18	24.55	24.56	33.91	13.49	19.87
Montana	32.19	20.29	17.49	35.95	14.15	21.38
Nebraska	40.29	24.35	20.86	35.17	14.18	21.04
Nevada	51.67	23.53	25.4	43.3	16.89	21.13
New Hampshire	43.43	25.45	23.87	43.74	16.8	23.47
New Jersey	54.18	28.77	28.86	44.22	15.01	26.78
New Mexico	36.41	24.34	26.69	37.85	13.95	20.21
New York	64.11	32.44	37.82	43.44	14.82	25.22
North Carolina	44.99	23.76	25.64	35.98	13.31	18.57
North Dakota	36.03	24.03	20.26	35.17	16.45	22.51
Ohio	41.3	27.11	22.32	36.29	13.8	20.99
Oklahoma	40.62	19.31	20.09	33.84	13.72	20.19
Oregon	43.62	28.28	26.68	43.89	17.58	24.28
Pennsylvania	50.18	28.09	23.89	36.16	15.09	21.54
Rhode Island	44.9	30.04	28.11	43.07	15.94	23.36
South Carolina	35.48	23.03	22.12	35.4	13.48	18.01
South Dakota	35.98	19.84	18.49	34.17	13.84	19.71
Tennessee	46.99	22.95	24.52	33.65	14.08	18.24
Texas	50.98	24.77	25.91	36.82	14.18	21.72
Utah	39.55	24.11	23.66	36.26	14.25	19.7
Vermont	40.63	25.15	22.67	40.87	16.24	20.57
Virginia	50.37	27.79	28.13	38.45	15.17	22.59
Washington	**47.72**	**26.64**	**27.62**	**42.63**	**17.56**	**27.84**
West Virginia	32.83	21.85	21.97	32.83	13.18	16.84
Wisconsin	43.29	24.29	21.99	37.98	15.49	21.5
Wyoming	36.5	23.34	20.58	38.82	15.23	21.94
U.S. Average	44.2358	25.0728	24.353	38.263	15.0578	21.5978
Washington's Rank	**14**	**14**	**9**	**12**	**4**	**4**

Source: "Occupational Employment Statistics," US Department of Commerce, Bureau of Labor Statistics, 2017

Table 3.10 (continued)
Economic Growth and Competitiveness
Average Hourly Wages, 2017
(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	10.15	11.91	10.99	16.52	16.31	16.51
Alaska	13.65	16.46	15.48	17.93	21.09	19.41
Arizona	12.23	13.12	12.98	17.8	17.79	12.27
Arkansas	10.3	11.55	11	16.19	15.64	15.11
California	13.59	15.86	13.85	20.91	20.11	12.61
Colorado	12.31	14.46	14.27	21.9	19.06	14.4
Connecticut	13	16.63	14.99	22.62	21.06	15.78
Delaware	11.96	13.92	13.08	18.5	18.47	17.1
Florida	12.21	12.38	12.9	18.28	16.76	12.41
Georgia	10.03	12.42	12.35	17.76	17.27	13.92
Hawaii	16.46	16.65	14.94	17.52	19.23	18.17
Idaho	10.34	12.7	11.71	16.78	16.2	14.32
Illinois	11.52	14.74	13.25	20.15	18.38	15.67
Indiana	10.33	12.81	11.42	18.19	16.74	14.21
Iowa	10.63	13.4	12.39	17.02	17.46	16.37
Kansas	10.35	12.92	11.78	18.16	16.73	15.83
Kentucky	10.12	12.51	12.13	16.46	16.1	14.22
Louisiana	9.86	11.04	10.54	15.17	15.69	17.4
Maine	12.16	14.19	12.63	16.56	17.15	17.58
Maryland	12.26	14.24	14.14	19.94	19.55	16.9
Massachusetts	14.34	17.44	15.68	23.03	21.06	16.28
Michigan	11.31	13.32	12.62	19.06	17.56	14.15
Minnesota	12.34	15.24	13.34	21.05	19.26	16.78
Mississippi	9.94	10.93	11.02	14.21	15.37	16.6
Missouri	10.66	12.85	11.62	17.6	17.15	15.49
Montana	11.14	13.57	12.2	16.67	16.41	15.67
Nebraska	11.67	13.22	13.1	17.99	16.89	17.01
Nevada	12.69	14.47	13.21	16.99	17.47	16.07
New Hampshire	11.96	14.5	13.35	20.29	18.26	16.78
New Jersey	12.65	15.1	15.4	21.86	19.56	13.9
New Mexico	10.51	11.91	11.04	15.5	16.56	12.6
New York	13.75	16.72	14.84	24.8	20.73	17.78
North Carolina	10.49	12.24	12.21	18.96	17.03	15.66
North Dakota	11.89	14.92	14.39	19.06	18.06	17.23
Ohio	10.83	13.22	12.24	18.86	17.43	15.4
Oklahoma	10.16	11.7	11.23	16.96	16.63	14.51
Oregon	12.65	14.63	13.77	18.7	18.42	16.86
Pennsylvania	11.24	13.72	12.36	19.71	17.9	15.65
Rhode Island	12.76	15.18	13.83	21.62	19.31	16.91
South Carolina	10.23	11.63	11.07	16.03	16.4	17.08
South Dakota	10.87	12.43	12.23	17.85	15.07	14.62
Tennessee	10.24	12.23	11.61	17.58	16.94	13.91
Texas	11.34	12.18	11.11	20.06	17.72	13.21
Utah	11.05	12.56	12.07	18.4	16.62	14.2
Vermont	14.2	14.97	15.13	19.05	18.6	16.14
Virginia	11.35	13.06	13.06	19.07	18.26	16.46
Washington	**14.46**	**15.96**	**15.64**	**21.41**	**20.16**	**16.34**
West Virginia	10.72	11.98	10.93	14.34	15.44	14.73
Wisconsin	10.69	13.39	12.05	19.17	17.47	15.75
Wyoming	11.76	14.19	13.07	17.25	17.38	15.01
U.S. Average	11.667	13.6674	12.8448	18.5498	17.7582	15.5794
Washington's Rank	**2**	**6**	**2**	**7**	**5**	**19**

Source: "Occupational Employment Statistics," US Department of Commerce, Bureau of Labor Statistics, 2017

Table 3.10 (continued)
Economic Growth and Competitiveness
Average Hourly Wages, 2017
(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	19.6	22.12	16.73	15.64
Alaska	32.02	29.51	21.31	27.04
Arizona	21.16	21.93	17.8	18.09
Arkansas	18.11	20.11	16.07	15.92
California	27.89	25.33	18.48	18.26
Colorado	23.1	24.21	18.99	19.75
Connecticut	27.3	26.44	21.41	18.47
Delaware	24.28	24.12	18.33	16.29
Florida	19.14	20.37	16.39	16.89
Georgia	20.04	21.82	16.51	16.68
Hawaii	32.43	26.58	20.01	22.44
Idaho	20.03	21.14	16.97	16.9
Illinois	31.44	23.93	18.13	18.17
Indiana	23.75	21.51	17.97	16.99
Iowa	21.9	22.12	17.66	17.63
Kansas	21.59	22.22	19.05	17.86
Kentucky	21.99	21.95	18.05	17.46
Louisiana	21.75	21.24	21.61	17.67
Maine	20.18	21.76	18.85	16.59
Maryland	23.72	24.95	19.08	19.13
Massachusetts	29.68	26.51	19.99	19.06
Michigan	24	22.75	18.62	17
Minnesota	27.72	23.92	19.02	19.01
Mississippi	19.07	20.35	16.62	15.66
Missouri	25.48	21.53	17.78	17.01
Montana	23.53	22.16	19.07	18.6
Nebraska	20.75	22.31	18.07	18.14
Nevada	24.17	24.41	17.71	18.08
New Hampshire	22.72	24.42	18.98	17.4
New Jersey	29.19	25.56	18.8	17.93
New Mexico	20.8	21.3	18.77	16.91
New York	30.97	25.23	19.21	19.88
North Carolina	19.2	21.65	16.6	15.68
North Dakota	25.8	26.01	20.88	21.67
Ohio	23.43	22.07	18.44	16.58
Oklahoma	20.9	21.42	18.11	17.09
Oregon	25.11	23.16	18.49	18.31
Pennsylvania	24.44	22.58	18.76	17.43
Rhode Island	25.82	24.05	18.83	16.62
South Carolina	19.14	21.09	18.25	15.61
South Dakota	18.9	22.04	16.36	16.25
Tennessee	19.53	21.63	17.07	16.26
Texas	20.96	22.06	18.75	18.58
Utah	20.98	22.53	17.58	17.77
Vermont	21.8	22.71	18.96	17.99
Virginia	21.45	23.73	18.09	18.21
Washington	**28.1**	**25.88**	**22.27**	**20.61**
West Virginia	22.98	20.09	19.25	16.44
Wisconsin	25.34	22.33	18.33	17.33
Wyoming	24.73	26.73	26.07	21.6
U.S. Average	23.5622	23.1114	18.6626	17.9716
Washington's Rank	**7**	**7**	**2**	**5**

Source: "Occupational Employment Statistics," US Department of Commerce, Bureau of Labor Statistics, 2017

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

	2013	2014	2015	2016	2017	2013-17
Alabama	36,674	36,473	36,818	37,158	37,508	36,926
Alaska	69,711	67,179	65,971	63,304	63,610	65,955
Arizona	38,352	38,534	38,787	38,940	39,583	38,839
Arkansas	35,888	36,265	36,295	36,502	36,714	36,333
California	53,838	55,571	57,637	58,974	60,359	57,276
Colorado	50,523	52,105	53,007	52,863	54,026	52,505
Connecticut	62,438	62,023	62,796	62,745	62,633	62,527
Delaware	60,738	63,555	64,809	63,578	63,955	63,327
Florida	38,018	38,466	39,334	39,608	39,842	39,054
Georgia	42,513	43,467	44,246	45,238	45,925	44,278
Hawaii	49,484	49,591	51,052	51,964	52,869	50,992
Idaho	34,787	35,173	35,679	36,256	36,441	35,667
Illinois	51,919	52,984	53,709	54,308	55,102	53,604
Indiana	43,876	44,818	44,721	45,717	46,427	45,112
Iowa	48,034	49,688	51,379	52,248	52,284	50,727
Kansas	45,468	46,235	46,792	47,548	47,435	46,696
Kentucky	38,259	38,336	38,419	38,736	39,277	38,605
Louisiana	43,721	44,475	44,751	44,440	44,372	44,352
Maine	37,508	38,149	38,415	39,125	39,521	38,544
Maryland	53,751	54,108	54,661	55,786	56,375	54,936
Massachusetts	61,842	62,528	64,660	65,168	66,500	64,140
Michigan	40,992	41,544	42,594	43,330	44,201	42,532
Minnesota	52,023	53,109	53,257	54,295	54,805	53,498
Mississippi	31,952	31,635	31,714	32,334	32,447	32,016
Missouri	42,498	42,527	42,785	42,736	43,036	42,716
Montana	38,567	39,319	40,148	40,041	39,833	39,582
Nebraska	51,597	53,109	54,048	54,660	54,654	53,614
Nevada	43,074	43,075	44,057	44,142	44,812	43,832
New Hampshire	48,873	49,623	51,020	51,827	52,509	50,770
New Jersey	55,659	55,563	56,196	56,428	56,776	56,124
New Mexico	39,659	40,769	41,457	41,334	41,619	40,968
New York	62,320	63,174	64,286	64,522	65,220	63,904
North Carolina	42,909	43,400	44,180	44,194	44,706	43,878
North Dakota	67,755	70,876	67,618	64,257	64,911	67,083
Ohio	45,262	46,671	47,098	47,419	48,188	46,928
Oklahoma	43,317	45,418	46,370	44,418	44,535	44,812
Oregon	48,169	48,130	49,715	50,751	51,312	49,615
Pennsylvania	48,289	49,228	50,489	50,978	51,841	50,165
Rhode Island	46,367	46,663	47,519	47,662	48,314	47,305
South Carolina	35,716	36,325	36,952	37,269	37,637	36,780
South Dakota	47,003	47,039	47,980	48,306	48,004	47,666
Tennessee	41,513	41,858	42,902	43,720	44,348	42,868
Texas	52,007	52,879	54,200	53,104	53,737	53,185
Utah	42,306	43,264	44,392	44,947	45,493	44,080
Vermont	42,989	43,222	43,605	44,354	44,831	43,800
Virginia	51,112	50,855	51,486	51,443	52,124	51,404
Washington	**54,197**	**55,338**	**56,617**	**57,796**	**59,333**	**56,656**
West Virginia	35,772	36,017	36,233	36,155	37,353	36,306
Wisconsin	45,895	46,456	47,268	48,063	48,666	47,270
Wyoming	60,806	60,853	61,304	59,327	61,091	60,676
50 State Average	47,119	47,753	48,429	48,600	49,142	48,209
Washington's Rank	**9**	**10**	**9**	**9**	**9**	**9**

Source: Bureau of Economic Analysis, 2017

Chapter 4: Quality of Life – Summary

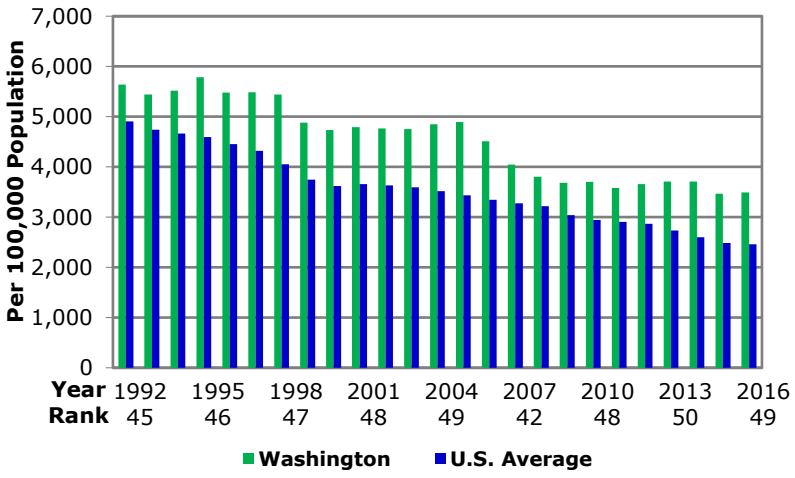
- **Washington's rank improved from 20th to 18th best in the nation in *Quality of Life* this year.**
- **The state's rank relative to other states improved in four indicators, worsened in five, and was unchanged in one.**

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

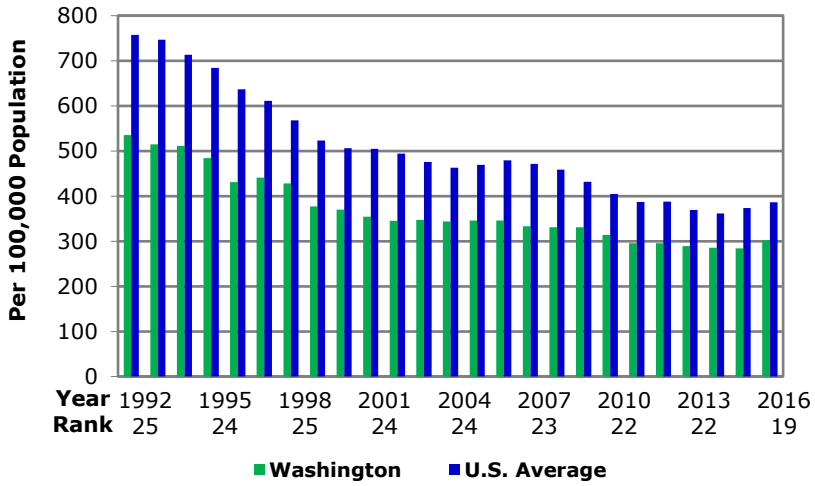
Figure 4.1: Property Crime



Source: U.S. Department of Justice. Federal Bureau of Investigation; data through 2016

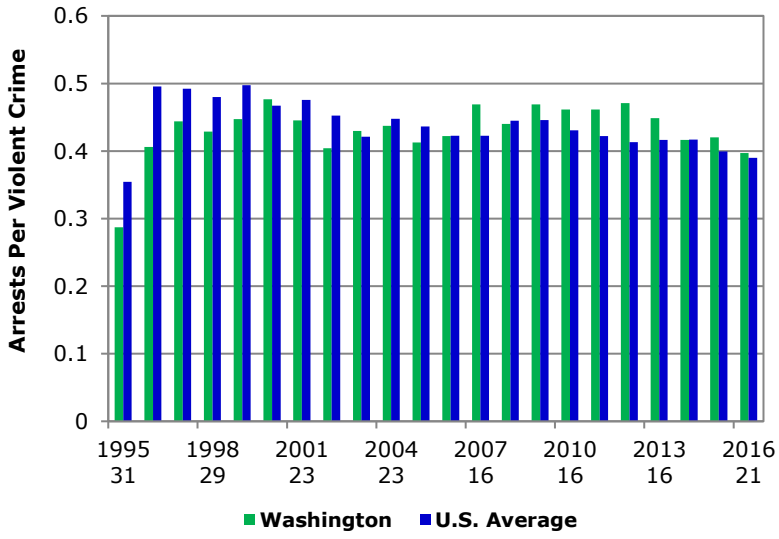
nationwide, statistical effort of over 17,000 cities, counties, and state law enforcement agencies, with data in this report going back to 1991.

Figure 4.2: Violent Crime Rate



Source: U.S. Department of Justice. Federal Bureau of Investigation; data through 2016

Figure 4.3: Arrests Per Violent Crime



Source: U.S. Department of Justice. Federal Bureau of Investigation; data through 2016

Washington's rank for violent crime, property crime, and…

In 2016, Washington's violent crime (murder, non-negligent manslaughter, forcible rape, robbery, and aggravated assault), as measured per 100,000 people, increased from 284 in 2015 to

… arrests per violent crime all worsened in 2016

302 in 2016. Washington's 2016 ranking was 19th in the nation. The property crime (burglary, larceny-theft, motor vehicle theft, and arson) rate in Washington, also measured per 100,000 people, increased to 3,494 crimes. This worsened Washington's rank to 49th in the nation for property crime. In Washington there were 0.40 arrests per violent crime. This is a 0.02 decrease from the year before, and Washington's ranking dropped to 21st in the nation.

Air Quality

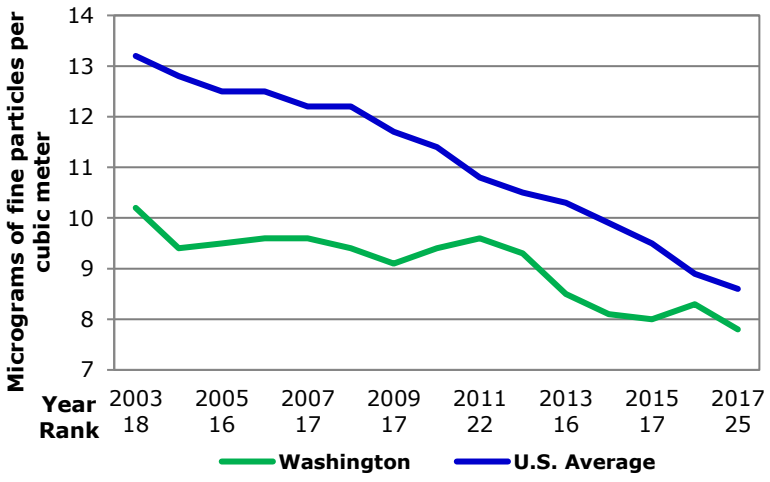
The United Health Foundation measures air pollution

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 2017

Air pollution in WA decreased, and rank improved

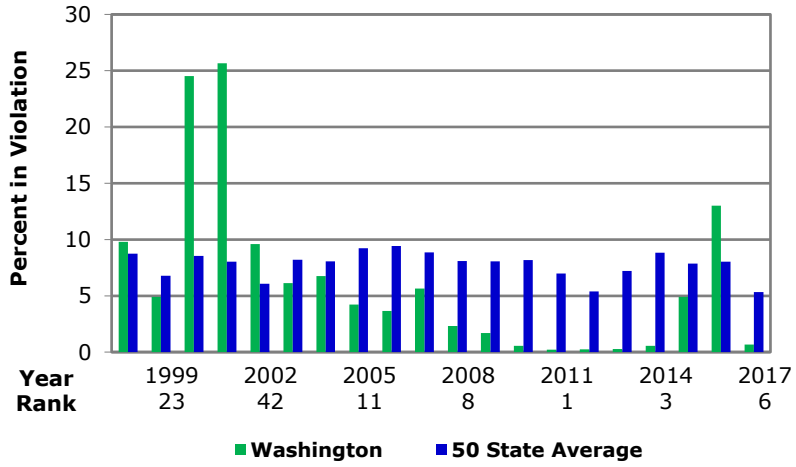
In 2017, there were 7.8 micrograms of fine particles per cubic meter in Washington, a decrease from 8.3 in 2016. Washington again remains below the U.S. average, which was 8.6 in 2017. Washington's ranking also improved to 25th in the nation. Washington's five-year average was 8.1 micrograms, and had a ranking of 19th 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 2017

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 significantly to 6th in the nation

2017 data for Rhode Island and Hawaii have not been released. These two states were omitted from the U.S. average, which will affect its result. This year Washington's drinking water index decreased significantly from 13 percent to 0.7 percent. Similar changes were seen in other states as well. Washington's ranking also improved significantly from 42nd in the nation to 6th in the nation. The U.S. average was 5.3 percent. Washington's 5 year average is 3.9 percent, which is below the five year U.S. average of 7.5 percent.

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.

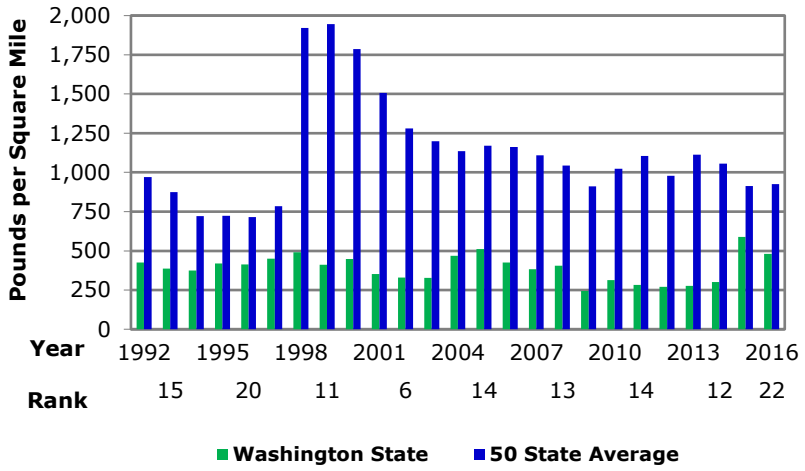
The U.S. reported a 1.36 percent increase in toxins in 2016

In 2016, U.S. industries reported a 1.35 percent increase in their total releases of toxics, from 3.39 billion to 3.44 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 480 pounds per square mile.

The amount of toxins released in Washington decreased in 2016 to 480 pounds per square mile. This is well below the U.S. average of 925 pounds per square mile. Washington's ranking stayed the same at 22nd in the nation. Washington's five-year average is 383 pounds per square mile, and the U.S. average in that same period is 997. Washington's five year average ranking is 18th in the nation.

Figure 4.6: Toxins Released



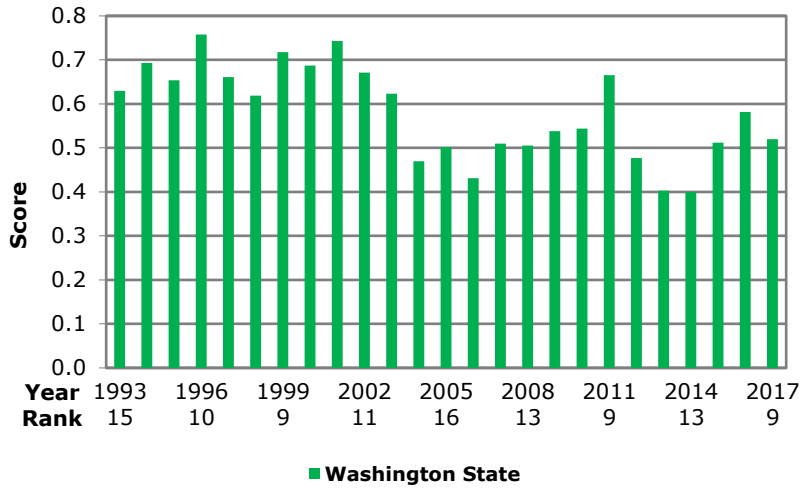
Source: U.S. Environmental Protection Agency. Office of Pollution Prevention and Toxics; data through 2016

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 2017

Parks and Recreation Areas

Washington's 2016 index fell to 9th best in the nation

Washington's health index worsened to 0.52 in 2017. Although it worsened, Washington still ranks high amongst the other states. Washington's ranking fell to 9th in the nation from 7th the year before. The five year average for the index is 0.48. 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, large disparity in health status by educational attainment.

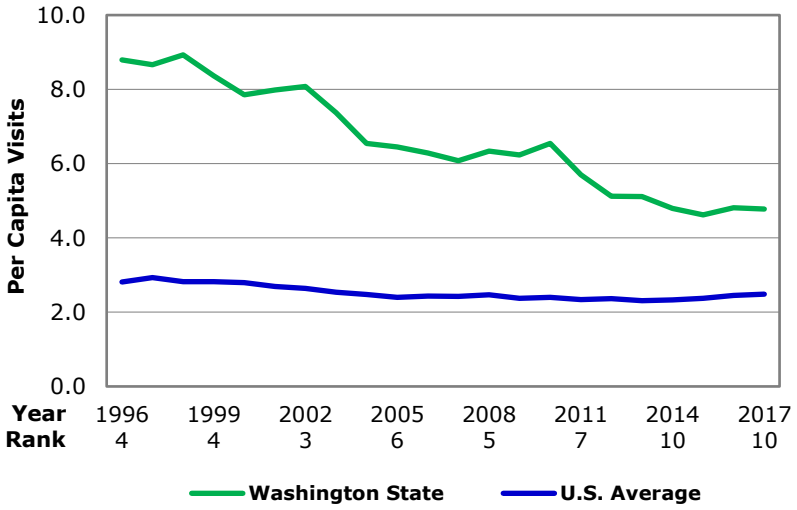
Washington's park system is more than a century old

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: Parks and Recreation Areas



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

State Arts

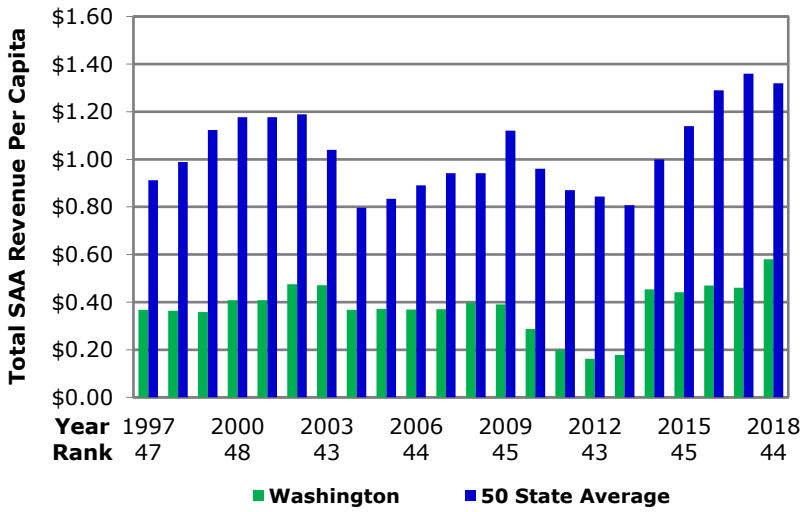
Measures art agency funding

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 6th lowest in the nation

Washington's per capita state arts revenue increased from $0.46 in 2017 to $0.58 in 2018. Washington's ranking also improved to 44th in the nation. Washington's per capita state art revenue has always been lower than the U.S. average. However, $0.58 per capita is Washington's highest state arts revenue to date. Washington's five year average is $0.48 per capita, the U.S. average is $1.22.

Figure 4.9: State Arts



Source: National Assembly of State Arts Agencies; data through 2018

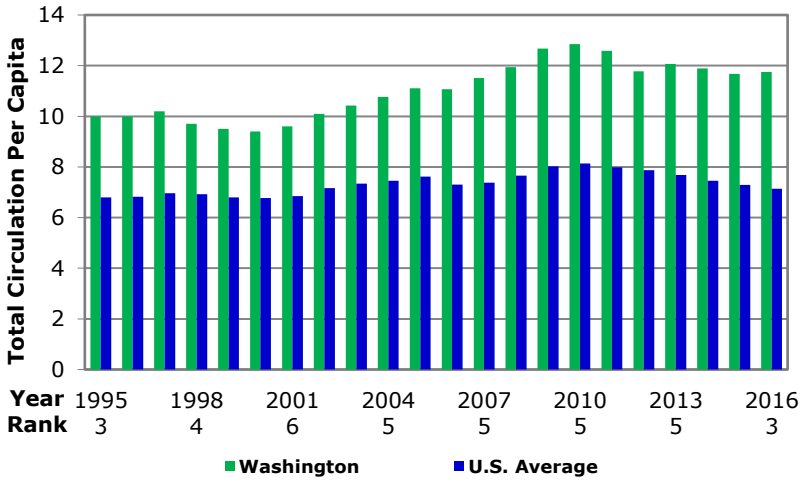
Public Library Service

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 2016

Washington ranked 3rd in per capita circulation

Washington's ranking for circulation per capita in 2016 improved to 3rd in the nation from 5th the year before. In 2016 per capita circulation was 11.8, and the U.S. average was 7.1. Washington has consistently been above the U.S. average. Washington's average for 2012-2016 is also 11.8, and the U.S. average for that same period is 7.7.

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

	2012	2013	2014	2015	2016	2012-16
Alabama	3,502	3,351	3,178	2,979	2,948	3,192
Alaska	2,739	2,885	2,760	2,818	3,353	2,911
Arizona	3,539	3,399	3,198	3,033	2,978	3,229
Arkansas	3,660	3,603	3,338	3,252	3,269	3,424
California	2,759	2,658	2,441	2,618	2,553	2,606
Colorado	2,685	2,659	2,530	2,642	2,741	2,651
Connecticut	2,140	1,974	1,920	1,812	1,808	1,931
Delaware	3,341	3,066	2,982	2,691	2,766	2,969
Florida	3,277	3,105	3,416	2,813	2,687	3,060
Georgia	3,411	3,347	3,281	3,022	3,005	3,213
Hawaii	3,075	3,054	3,050	3,796	2,993	3,194
Idaho	1,984	1,864	1,855	1,744	1,744	1,838
Illinois	2,579	2,274	2,076	1,989	2,049	2,193
Indiana	3,029	2,854	2,649	2,596	2,589	2,744
Iowa	2,272	2,194	2,094	2,047	2,086	2,139
Kansas	3,143	2,947	2,735	2,720	2,696	2,848
Kentucky	2,553	2,363	2,247	2,178	2,190	2,306
Louisiana	3,541	3,582	3,459	3,353	3,298	3,447
Maine	2,510	2,292	1,986	1,830	1,646	2,053
Maryland	2,754	2,664	2,508	2,315	2,285	2,505
Massachusetts	2,153	2,051	1,857	1,691	1,561	1,863
Michigan	2,531	2,328	2,044	1,886	1,910	2,140
Minnesota	2,568	2,420	2,298	2,222	2,133	2,328
Mississippi	2,811	2,725	2,921	2,834	2,768	2,812
Missouri	3,314	3,137	2,907	2,854	2,799	3,002
Montana	2,584	2,557	2,473	2,624	2,684	2,584
Nebraska	2,755	2,623	2,524	2,241	2,263	2,481
Nevada	2,809	2,838	2,625	2,668	2,587	2,705
New Hampshire	2,324	2,194	1,963	1,746	1,513	1,948
New Jersey	2,047	1,883	1,734	1,627	1,545	1,767
New Mexico	3,601	3,705	3,542	3,697	3,937	3,696
New York	1,922	1,825	1,718	1,604	1,546	1,723
North Carolina	3,370	3,128	2,873	2,750	2,738	2,972
North Dakota	2,010	2,094	2,110	2,117	2,296	2,125
Ohio	3,117	2,928	2,799	2,588	2,578	2,802
Oklahoma	3,401	3,274	2,991	2,886	2,983	3,107
Oregon	3,224	3,174	2,879	2,947	2,964	3,038
Pennsylvania	2,166	2,061	1,932	1,813	1,743	1,943
Rhode Island	2,572	2,442	2,174	1,898	1,899	2,197
South Carolina	3,822	3,624	3,460	3,293	3,244	3,489
South Dakota	2,060	1,915	1,864	1,943	1,981	1,952
Tennessee	3,371	3,181	3,061	2,936	2,854	3,081
Texas	3,362	3,258	3,019	2,831	2,760	3,046
Utah	2,992	2,950	2,879	2,980	2,952	2,950
Vermont	2,399	2,214	1,524	1,407	1,697	1,848
Virginia	2,162	2,066	1,930	1,867	1,859	1,977
Washington	**3,659**	**3,710**	**3,706**	**3,464**	**3,494**	**3,607**
West Virginia	2,365	2,104	2,035	2,020	2,047	2,114
Wisconsin	2,454	2,189	2,088	1,974	1,933	2,128
Wyoming	2,294	2,198	1,965	1,903	1,957	2,063
United States	2,868	2,734	2,596	2,487	2,458	2,629
Washington's Rank	**48**	**50**	**50**	**48**	**49**	**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)

	2012	2013	2014	2015	2016	2012-16
Alabama	450	431	427	472	532	463
Alaska	603	640	636	730	804	683
Arizona	429	417	400	410	470	425
Arkansas	469	460	480	521	551	496
California	423	402	396	426	445	419
Colorado	309	308	309	321	343	318
Connecticut	283	263	237	219	227	246
Delaware	547	491	489	499	509	507
Florida	487	470	541	462	430	478
Georgia	379	366	377	378	398	380
Hawaii	239	252	259	293	309	271
Idaho	208	217	212	216	230	217
Illinois	415	380	370	384	436	397
Indiana	346	357	365	388	405	372
Iowa	264	271	274	286	291	277
Kansas	355	340	349	390	380	363
Kentucky	223	210	212	219	232	219
Louisiana	497	519	515	540	566	527
Maine	123	129	128	130	124	127
Maryland	477	474	446	457	472	465
Massachusetts	406	413	391	391	377	396
Michigan	455	450	427	416	459	441
Minnesota	231	234	229	243	243	236
Mississippi	261	275	279	276	281	274
Missouri	451	433	443	497	519	469
Montana	272	253	324	350	368	313
Nebraska	259	262	280	275	291	274
Nevada	608	603	636	696	678	644
New Hampshire	188	215	196	199	198	199
New Jersey	290	289	261	255	245	268
New Mexico	559	613	597	656	703	626
New York	407	394	382	380	376	388
North Carolina	353	342	330	347	372	349
North Dakota	245	270	265	239	251	254
Ohio	300	286	285	292	300	293
Oklahoma	469	441	406	422	450	438
Oregon	248	254	232	260	265	252
Pennsylvania	349	335	314	315	316	326
Rhode Island	252	257	219	243	239	242
South Carolina	559	509	498	505	502	514
South Dakota	322	317	327	383	418	353
Tennessee	644	591	608	612	633	618
Texas	409	408	406	412	434	414
Utah	206	224	216	236	243	225
Vermont	143	121	99	118	158	128
Virginia	190	196	196	196	218	199
Washington	**296**	**289**	**285**	**284**	**302**	**291**
West Virginia	316	300	302	338	358	323
Wisconsin	281	278	290	306	306	292
Wyoming	201	205	196	222	244	214
United States	388	369	362	374	386	376
Washington's Rank	**21**	**22**	**20**	**17**	**19**	**19**

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

	2012	2013	2014	2015	2016	2012-16
Alabama	0.06	0.07	0.09	0.32	0.31	0.17
Alaska	0.58	0.54	0.53	0.41	0.39	0.49
Arizona	0.32	0.35	0.35	0.34	0.37	0.35
Arkansas	0.35	0.32	0.32	0.33	0.32	0.33
California	0.65	0.66	0.69	0.65	0.61	0.65
Colorado	0.37	0.36	0.37	0.38	0.39	0.37
Connecticut	0.46	0.40	0.48	0.43	0.47	0.45
Delaware	0.48	0.48	0.47	0.47	0.46	0.47
Florida	0.44	0.44	0.37	0.41	0.40	0.41
Georgia	0.41	0.37	0.35	0.29	0.34	0.35
Hawaii	NA	0.75	0.79	0.37	0.30	0.55
Idaho	0.45	0.44	0.40	0.44	0.42	0.43
Illinois	0.56	0.56	0.44	0.37	0.32	0.45
Indiana	0.41	0.45	0.42	0.40	0.42	0.42
Iowa	0.58	0.54	0.54	0.63	0.60	0.58
Kansas	0.31	0.31	0.29	0.27	0.30	0.29
Kentucky	0.40	0.41	0.41	0.36	0.34	0.38
Louisiana	0.68	0.53	0.36	0.36	0.48	0.48
Maine	0.47	0.47	0.45	0.46	0.47	0.47
Maryland	0.38	0.37	0.40	0.40	0.40	0.39
Massachusetts	0.43	0.40	0.43	0.41	0.40	0.41
Michigan	0.28	0.28	0.28	0.28	0.27	0.28
Minnesota	0.00	0.44	0.45	0.45	0.43	0.35
Mississippi	0.43	0.40	0.43	0.38	0.41	0.41
Missouri	0.40	0.38	0.37	0.36	0.34	0.37
Montana	0.35	0.34	0.30	0.29	0.29	0.31
Nebraska	0.47	0.44	0.47	0.36	0.38	0.43
Nevada	0.39	0.40	0.43	0.41	0.42	0.41
New Hampshire	0.40	0.34	0.36	0.32	0.35	0.35
New Jersey	0.45	0.44	0.47	0.42	0.47	0.45
New Mexico	0.41	0.38	0.39	0.38	0.38	0.39
New York	0.33	0.31	0.31	0.34	0.33	0.32
North Carolina	0.61	0.57	0.57	0.55	0.50	0.56
North Dakota	0.31	0.30	0.33	0.38	0.39	0.34
Ohio	0.29	0.28	0.27	0.22	0.25	0.26
Oklahoma	0.28	0.30	0.30	0.32	0.28	0.30
Oregon	0.47	0.45	0.50	0.46	0.38	0.45
Pennsylvania	0.55	0.55	0.54	0.50	0.49	0.53
Rhode Island	0.34	0.31	0.34	0.34	0.36	0.34
South Carolina	0.32	0.33	0.32	0.29	0.29	0.31
South Dakota	0.32	0.32	0.35	0.39	0.39	0.35
Tennessee	0.45	0.47	0.44	0.42	0.40	0.43
Texas	0.29	0.28	0.27	0.28	0.27	0.28
Utah	0.36	0.33	0.36	0.36	0.33	0.35
Vermont	0.65	0.73	0.86	0.69	0.57	0.70
Virginia	0.44	0.42	0.43	0.40	0.41	0.42
Washington	**0.47**	**0.45**	**0.42**	**0.42**	**0.40**	**0.43**
West Virginia	0.41	0.38	0.45	0.48	0.43	0.43
Wisconsin	0.56	0.51	0.46	0.45	0.44	0.48
Wyoming	0.44	0.47	0.44	0.48	0.37	0.44
U.S. Average	0.41	0.42	0.42	0.40	0.39	0.41
Washington's Rank	**13**	**16**	**25**	**16**	**21**	**18**

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)

	2013	2014	2015	2016	2017	2013-17
Alabama	10.7	10.0	9.5	9.1	8.9	9.6
Alaska	5.4	4.9	6.0	8.8	8.7	6.8
Arizona	9.6	9.9	9.7	9.3	9.7	9.6
Arkansas	10.7	10.3	9.7	7.5	7.2	9.1
California	15.1	13.9	12.5	11.4	11.7	12.9
Colorado	6.7	6.8	7.0	6.6	6.6	6.7
Connecticut	9.0	8.7	8.8	8.8	8.6	8.8
Delaware	10.6	10.2	9.7	9.5	9.1	9.8
Florida	7.6	7.4	7.2	6.8	6.8	7.2
Georgia	11.2	10.3	9.8	9.1	9.0	9.9
Hawaii	9.1	8.7	7.6	7.0	5.9	7.7
Idaho	8.6	10.4	11.7	8.5	5.9	9.0
Illinois	11.7	11.4	11.1	10.8	10.2	11.0
Indiana	12.6	11.7	11.3	10.5	9.7	11.2
Iowa	9.9	9.6	9.3	8.6	7.8	9.0
Kansas	8.9	8.8	8.6	8.0	7.3	8.3
Kentucky	11.1	10.4	10.1	9.1	8.8	9.9
Louisiana	9.6	9.2	8.6	8.1	7.8	8.7
Maine	7.5	7.6	7.4	6.8	6.4	7.1
Maryland	10.8	10.0	9.6	9.1	9.0	9.7
Massachusetts	8.1	7.7	7.2	6.4	6.2	7.1
Michigan	9.3	8.8	8.8	8.6	8.7	8.8
Minnesota	8.1	8.0	8.0	8.0	7.5	7.9
Mississippi	9.8	9.3	8.9	8.1	7.5	8.7
Missouri	10.0	10.0	9.7	9.1	8.3	9.4
Montana	7.2	6.3	5.7	6.3	6.0	6.3
Nebraska	8.2	8.0	7.8	7.3	7.0	7.7
Nevada	9.1	9.3	10.0	9.2	9.1	9.3
New Hampshire	7.6	7.5	7.2	6.6	5.9	7.0
New Jersey	9.1	9.0	8.8	8.8	8.5	8.8
New Mexico	6.6	7.1	6.6	6.0	5.7	6.4
New York	9.0	8.5	8.0	7.5	7.2	8.0
North Carolina	9.6	9.0	8.7	8.0	7.8	8.6
North Dakota	5.6	5.4	5.2	4.9	4.2	5.1
Ohio	11.6	10.9	10.6	10.2	9.6	10.6
Oklahoma	9.7	9.7	9.5	8.7	8.1	9.1
Oregon	7.0	6.9	6.7	7.3	6.8	6.9
Pennsylvania	11.7	11.7	11.4	11.0	10.1	11.2
Rhode Island	8.5	8.4	7.8	7.5	7.5	7.9
South Carolina	10.2	9.5	9.0	7.9	7.8	8.9
South Dakota	6.4	6.3	6.3	6.3	5.5	6.2
Tennessee	10.1	9.5	9.1	8.6	8.2	9.1
Texas	10.2	10.2	9.9	9.4	8.9	9.7
Utah	9.3	10.1	8.9	9.2	8.1	9.1
Vermont	6.9	6.4	6.2	5.6	5.5	6.1
Virginia	9.3	8.7	8.3	7.8	7.5	8.3
Washington	**8.5**	**8.1**	**8.0**	**8.3**	**7.8**	**8.1**
West Virginia	10.7	9.8	9.4	7.9	7.7	9.1
Wisconsin	9.6	9.3	9.1	7.9	7.4	8.7
Wyoming	5.3	5.0	5.0	4.4	3.8	4.7
U.S. Average	10.3	9.9	9.5	8.9	8.6	9.4
Washington's Rank	**16**	**16**	**17**	**27**	**25**	**19**

Source: United Health Foundation, America's Health Rankings, Air Pollution, 2017

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

	2013	2014	2015	2016	2017	2013-17
Alabama	4.1	5.4	3.2	1.7	0.3	2.9
Alaska	8.8	21.2	11.9	12.6	10.3	13.0
Arizona	2.5	2.5	26.3	26.3	4.8	12.5
Arkansas	10.4	7.5	12.3	9.9	10.3	10.1
California	2.7	2.5	4.0	11.4	1.4	4.4
Colorado	1.5	4.2	1.3	1.4	6.3	2.9
Connecticut	0.4	0.3	1.9	2.0	1.4	1.2
Delaware	12.0	15.2	0.5	0.4	0.2	5.7
Florida	5.6	6.7	7.0	6.7	2.5	5.7
Georgia	12.0	14.3	3.7	3.5	1.8	7.1
Hawaii	2.8	45.4	1.1	2.8	NA	13.0
Idaho	6.8	6.4	7.2	7.6	2.8	6.2
Illinois	5.7	1.4	2.2	1.8	0.9	2.4
Indiana	1.3	5.8	3.9	4.3	2.3	3.5
Iowa	3.9	9.5	13.6	4.5	10.1	8.3
Kansas	3.8	4.5	9.2	7.3	3.0	5.6
Kentucky	3.3	15.3	10.6	33.2	12.5	15.0
Louisiana	13.3	17.5	22.1	17.4	6.7	15.4
Maine	2.7	1.8	1.9	2.2	1.4	2.0
Maryland	0.9	31.8	30.7	33.0	0.8	19.4
Massachusetts	25.7	12.0	6.9	4.3	1.6	10.1
Michigan	0.7	0.8	2.3	1.1	1.3	1.3
Minnesota	0.8	0.7	0.8	0.6	0.1	0.6
Mississippi	10.2	5.9	8.6	4.5	3.3	6.5
Missouri	3.9	4.8	8.8	6.7	3.5	5.6
Montana	14.4	9.5	12.1	10.2	7.4	10.7
Nebraska	8.7	8.2	11.5	8.7	6.4	8.7
Nevada	1.1	0.1	0.5	1.0	0.5	0.7
New Hampshire	10.9	20.5	11.6	2.6	4.9	10.1
New Jersey	5.0	8.0	8.0	12.2	5.2	7.7
New Mexico	7.1	7.8	7.9	12.2	6.2	8.3
New York	48.7	3.7	2.7	3.4	48.6	21.4
North Carolina	2.9	5.8	4.7	3.7	5.9	4.6
North Dakota	0.3	5.8	3.2	0.3	0.1	2.0
Ohio	1.6	6.9	17.8	16.3	2.5	9.0
Oklahoma	21.7	23.5	21.3	19.1	16.4	20.4
Oregon	20.2	18.1	4.5	3.5	3.2	9.9
Pennsylvania	5.0	12.0	15.2	7.0	7.8	9.4
Rhode Island	14.9	14.6	2.5	2.2	NA	8.5
South Carolina	2.7	4.7	4.5	12.8	1.3	5.2
South Dakota	3.7	2.5	4.4	5.3	5.4	4.3
Tennessee	6.8	1.9	5.5	4.4	7.0	5.1
Texas	6.1	7.2	15.5	9.1	5.7	8.7
Utah	11.3	7.7	9.0	16.5	8.7	10.6
Vermont	7.8	8.8	5.6	2.5	1.3	5.2
Virginia	2.9	2.0	1.3	2.2	1.1	1.9
Washington	**0.3**	**0.5**	**4.9**	**13.0**	**0.7**	**3.9**
West Virginia	4.5	3.1	5.3	14.7	11.1	7.7
Wisconsin	4.9	5.1	8.3	5.3	4.3	5.6
Wyoming	1.4	10.8	2.9	6.6	4.2	5.2
50 State Average**	7.2	8.8	7.9	8.0	5.3	7.5
Washington's Rank	**1**	**3**	**23**	**42**	**6**	**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, 2017

Table 4.6
Quality of Life
Toxins Released
Pounds per square mile

	2012	2013	2014	2015	2016	2012-16
Alabama	1,576	1,671	1,732	1,689	1,579	1,649
Alaska	1,425	1,578	1,892	981	1,355	1,446
Arizona	750	615	689	750	746	710
Arkansas	788	683	786	615	576	690
California	205	218	190	196	217	205
Colorado	270	263	284	264	311	278
Connecticut	392	408	347	274	311	346
Delaware	3,162	2,311	2,544	2,580	1,619	2,443
Florida	1,053	1,118	1,075	1,015	1,066	1,065
Georgia	1,156	1,203	1,160	1,021	916	1,091
Hawaii	417	402	414	398	456	417
Idaho	462	581	601	562	553	552
Illinois	2,014	2,145	2,068	2,001	1,891	2,024
Indiana	4,049	4,233	4,338	3,774	3,569	3,993
Iowa	724	710	634	653	528	650
Kansas	258	263	257	225	222	245
Kentucky	1,931	1,795	1,791	1,552	1,321	1,678
Louisiana	2,895	2,785	2,786	2,833	2,800	2,820
Maine	356	359	302	282	281	316
Maryland	671	686	657	650	462	625
Massachusetts	394	396	382	362	287	364
Michigan	733	722	635	755	727	714
Minnesota	317	306	336	302	277	308
Mississippi	1,202	1,396	1,450	1,352	1,174	1,315
Missouri	1,013	1,032	1,002	1,085	960	1,019
Montana	231	237	257	261	234	244
Nebraska	309	337	339	271	231	297
Nevada	2,578	3,354	2,592	2,926	2,866	2,863
New Hampshire	89	82	69	51	28	64
New Jersey	1,586	1,343	1,325	9,123	1,280	2,931
New Mexico	201	187	167	185	159	180
New York	328	308	305	284	260	297
North Carolina	1,083	1,016	1,171	1,184	1,043	1,099
North Dakota	534	568	616	622	511	570
Ohio	2,709	2,723	2,565	2,377	2,154	2,506
Oklahoma	948	441	384	388	427	518
Oregon	238	176	169	166	173	185
Pennsylvania	2,157	2,089	1,886	1,444	1,214	1,758
Rhode Island	234	246	291	371	240	276
South Carolina	1,583	1,587	1,495	1,253	1,082	1,400
South Dakota	68	87	80	84	81	80
Tennessee	1,877	1,861	1,990	1,876	1,926	1,906
Texas	853	916	944	877	755	869
Utah	2,262	6,189	2,460	2,700	3,196	3,361
Vermont	32	28	32	37	41	34
Virginia	1,005	1,084	1,001	916	923	986
Washington	**270**	**276**	**300**	**589**	**480**	**383**
West Virginia	1,687	1,569	1,512	1,300	1,326	1,479
Wisconsin	526	548	553	493	449	514
Wyoming	175	206	188	210	187	193
U.S. Average	979	1,114	1,057	912	925	997
Washington's Rank	**11**	**12**	**12**	**22**	**22**	**18**

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

	2013	2014	2015	2016	2017	2013-17
Alabama	-0.82	-0.66	0.06	-0.79	-0.76	-0.60
Alaska	0.28	0.13	-0.70	-0.03	-0.07	-0.08
Arizona	0.02	-0.04	-0.89	-0.02	-0.11	-0.21
Arkansas	-0.89	-0.93	-0.07	-0.83	-0.77	-0.70
California	0.31	0.35	0.35	0.35	0.35	0.34
Colorado	0.57	0.57	0.56	0.56	0.62	0.58
Connecticut	0.65	0.74	0.67	0.75	0.70	0.70
Delaware	-0.10	-0.23	-0.16	-0.08	-0.10	-0.13
Florida	-0.21	-0.15	-0.17	-0.31	-0.15	-0.20
Georgia	-0.32	-0.32	-0.37	-0.46	-0.43	-0.38
Hawaii	0.92	0.91	0.89	0.91	0.85	0.89
Idaho	0.44	0.34	0.24	0.36	0.38	0.35
Illinois	-0.10	-0.08	0.35	0.08	0.03	0.06
Indiana	-0.49	-0.38	0.00	-0.37	-0.36	-0.32
Iowa	0.32	0.22	-0.44	0.34	0.38	0.16
Kansas	0.12	0.08	0.11	-0.01	0.12	0.08
Kentucky	-0.72	-0.75	-0.60	-0.65	-0.51	-0.65
Louisiana	-0.84	-0.80	-0.99	-1.04	-0.91	-0.92
Maine	0.37	0.30	0.71	0.19	0.21	0.35
Maryland	0.28	0.35	0.33	0.32	0.36	0.33
Massachusetts	0.73	0.74	0.37	0.76	0.92	0.70
Michigan	-0.22	-0.21	-0.28	-0.25	-0.21	-0.23
Minnesota	0.73	0.73	0.70	0.73	0.68	0.71
Mississippi	-0.89	-1.00	-0.29	-1.12	-1.04	-0.87
Missouri	-0.37	-0.28	-0.95	-0.34	-0.42	-0.47
Montana	0.28	0.28	0.21	0.18	0.23	0.24
Nebraska	0.46	0.50	-0.13	0.43	0.40	0.33
Nevada	-0.29	-0.33	0.45	-0.30	-0.29	-0.15
New Hampshire	0.70	0.68	0.49	0.70	0.62	0.64
New Jersey	0.53	0.47	0.69	0.57	0.47	0.55
New Mexico	-0.18	-0.18	0.47	-0.36	-0.25	-0.10
New York	0.37	0.39	-0.32	0.43	0.51	0.28
North Carolina	-0.25	-0.29	-0.35	-0.19	-0.18	-0.25
North Dakota	0.56	0.55	0.44	0.47	0.33	0.47
Ohio	-0.41	-0.36	-0.37	-0.39	-0.41	-0.39
Oklahoma	-0.67	-0.74	-0.66	-0.69	-0.59	-0.67
Oregon	0.43	0.41	0.31	0.21	0.30	0.33
Pennsylvania	-0.02	0.01	-0.03	-0.02	0.01	-0.01
Rhode Island	0.32	0.37	0.38	0.42	0.47	0.39
South Carolina	-0.64	-0.64	-0.56	-0.53	-0.61	-0.59
South Dakota	0.28	0.34	0.32	0.17	0.20	0.26
Tennessee	-0.58	-0.71	-0.59	-0.63	-0.64	-0.63
Texas	-0.25	-0.11	-0.19	-0.21	-0.19	-0.19
Utah	0.70	0.73	0.65	0.58	0.73	0.68
Vermont	0.87	0.85	0.29	0.71	0.79	0.70
Virginia	0.26	0.30	0.83	0.26	0.30	0.39
Washington	**0.40**	**0.40**	**0.51**	**0.58**	**0.52**	**0.48**
West Virginia	-0.73	-0.71	0.19	-0.60	-0.70	-0.51
Wisconsin	0.31	0.23	-0.77	0.22	0.27	0.05
Wyoming	0.36	0.21	0.13	0.12	0.07	0.18
U.S. Average	0.00	0.00	0.00	0.00	0.00	0.00
Washington's Rank	**14**	**13**	**9**	**7**	**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)	2014	2015	2016	2017	2018	2014-18
Alabama	0.93	1.00	1.04	1.16	1.17	1.06
Alaska	2.54	2.56	3.32	3.14	3.13	2.94
Arizona	0.49	0.49	0.35	0.58	0.61	0.50
Arkansas	0.94	1.56	0.81	0.82	0.76	0.98
California	0.18	0.27	0.30	0.64	0.70	0.42
Colorado	0.69	0.79	0.69	0.65	0.57	0.68
Connecticut	1.95	2.17	1.79	1.64	1.74	1.86
Delaware	4.33	4.50	4.41	4.49	4.27	4.40
Florida	0.58	2.41	1.86	2.16	1.48	1.70
Georgia	0.15	0.15	0.16	0.17	0.18	0.16
Hawaii	4.18	4.62	4.33	4.96	5.07	4.63
Idaho	0.87	0.87	0.92	0.93	0.92	0.90
Illinois	0.85	0.85	0.70	0.07	0.84	0.66
Indiana	0.55	0.55	0.62	0.62	0.72	0.61
Iowa	0.77	0.79	0.80	0.80	0.79	0.79
Kansas	0.26	0.22	0.08	0.30	0.30	0.23
Kentucky	0.82	0.82	0.80	0.79	0.79	0.81
Louisiana	0.65	0.64	0.64	0.61	0.64	0.64
Maine	1.16	1.19	1.35	1.32	1.35	1.28
Maryland	2.77	2.88	3.08	3.56	3.49	3.16
Massachusetts	1.82	1.97	2.26	2.30	2.23	2.12
Michigan	0.78	0.98	0.98	0.99	1.08	0.96
Minnesota	6.45	6.41	6.42	7.24	6.31	6.56
Mississippi	0.86	0.87	0.95	0.87	0.82	0.87
Missouri	1.35	1.30	1.31	1.33	1.17	1.29
Montana	2.16	2.44	2.21	1.76	1.93	2.10
Nebraska	1.42	1.46	1.60	1.73	1.65	1.57
Nevada	0.72	0.71	0.83	0.93	0.86	0.81
New Hampshire	1.05	1.02	0.90	0.97	1.01	0.99
New Jersey	2.05	1.93	1.92	1.93	1.92	1.95
New Mexico	0.99	1.04	1.11	0.97	0.96	1.01
New York	2.07	2.06	2.32	2.33	2.33	2.22
North Carolina	0.86	0.85	0.87	0.93	0.91	0.89
North Dakota	2.02	2.04	2.27	2.07	2.08	2.10
Ohio	1.10	1.11	1.35	1.39	1.38	1.27
Oklahoma	1.22	1.16	1.16	0.99	0.93	1.09
Oregon	0.90	0.94	0.82	0.84	0.97	0.89
Pennsylvania	0.79	0.82	0.82	0.90	0.89	0.84
Rhode Island	2.21	2.70	16.84	14.71	11.44	9.58
South Carolina	0.83	0.84	1.04	1.10	1.13	0.99
South Dakota	1.71	1.78	1.85	1.88	1.98	1.84
Tennessee	1.23	1.22	1.21	1.20	1.20	1.21
Texas	0.25	0.26	0.32	0.34	0.24	0.28
Utah	1.80	1.65	1.66	1.57	1.61	1.66
Vermont	3.19	3.01	2.85	2.88	2.80	2.95
Virginia	0.54	0.51	0.52	0.50	0.51	0.52
Washington	**0.45**	**0.44**	**0.47**	**0.46**	**0.58**	**0.48**
West Virginia	1.31	1.24	1.23	1.25	1.16	1.24
Wisconsin	0.27	0.27	0.28	0.28	0.29	0.28
Wyoming	3.27	3.38	3.35	3.04	3.05	3.22
U.S. Average	1.00	1.14	1.29	1.36	1.32	1.22
Washington's Rank	**45**	**45**	**44**	**45**	**44**	**45**

Source: National Assembly of State Arts Agencies, State Arts Agency Revenues, 2018

*Though state arts agencies are the primary source for state funding, some states also fund the arts through other agencies, such as arts education funding through the Department of Education.

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

	2012	2013	2014	2015	2016	2012-2016
Alabama	4.4	4.3	4.2	4.2	4.1	4.2
Alaska	6.3	6.3	6.5	6.1	6.5	6.3
Arizona	7.7	7.2	6.5	6.5	6.4	6.9
Arkansas	4.8	4.9	4.9	4.8	4.6	4.8
California	6.1	5.9	5.8	5.6	5.3	5.7
Colorado	12.7	12.5	12.1	11.6	11.4	12.1
Connecticut	9.5	9.1	8.6	8.3	7.3	8.6
Delaware	6.9	6.6	6.6	6.5	6.5	6.6
Florida	6.5	6.2	5.9	5.6	5.3	5.9
Georgia	4.4	4.2	3.9	3.7	3.7	4.0
Hawaii	5.0	4.7	4.6	4.5	4.4	4.6
Idaho	9.5	9.2	8.8	9.5	9.0	9.2
Illinois	9.4	9.3	8.9	8.7	8.4	8.9
Indiana	11.9	11.8	11.7	11.7	11.2	11.7
Iowa	9.5	9.2	9.0	8.8	8.4	9.0
Kansas	9.1	9.1	8.6	8.6	8.5	8.8
Kentucky	6.8	6.8	6.9	6.9	6.7	6.8
Louisiana	4.5	4.4	4.5	4.5	4.6	4.5
Maine	7.3	7.2	7.1	6.8	6.5	7.0
Maryland	9.7	9.7	9.8	9.7	9.7	9.7
Massachusetts	9.7	9.5	9.3	9.0	9.1	9.3
Michigan	8.8	8.8	8.5	8.2	7.8	8.4
Minnesota	10.5	10.0	9.9	9.6	9.1	9.8
Mississippi	2.8	2.7	2.7	2.6	2.5	2.6
Missouri	9.0	9.3	9.2	9.0	8.8	9.1
Montana	7.5	6.2	5.8	5.9	5.8	6.2
Nebraska	7.4	7.2	7.0	6.8	6.6	7.0
Nevada	7.3	7.5	7.4	7.2	6.8	7.3
New Hampshire	8.6	8.2	7.9	7.5	7.8	8.0
New Jersey	6.9	6.6	6.6	6.3	5.9	6.5
New Mexico	4.5	4.4	4.4	4.4	4.5	4.4
New York	8.1	7.8	7.2	6.8	6.6	7.3
North Carolina	5.7	5.4	5.3	5.1	4.9	5.3
North Dakota	6.0	5.8	5.4	5.2	5.7	5.6
Ohio	16.4	16.0	15.8	15.7	15.9	16.0
Oklahoma	5.8	5.9	5.6	5.6	5.7	5.7
Oregon	16.4	15.5	14.4	14.0	13.5	14.8
Pennsylvania	5.4	5.3	5.2	5.1	5.0	5.2
Rhode Island	7.1	6.8	6.8	6.4	6.1	6.6
South Carolina	5.5	5.6	5.4	5.4	5.1	5.4
South Dakota	8.0	8.3	6.8	6.8	6.9	7.3
Tennessee	4.1	3.9	4.0	4.0	4.0	4.0
Texas	5.0	4.5	4.2	4.2	4.2	4.4
Utah	13.3	12.9	12.7	12.4	11.6	12.6
Vermont	7.5	7.4	7.2	7.1	6.7	7.2
Virginia	9.3	9.2	9.0	8.6	8.0	8.8
Washington	**11.8**	**12.1**	**11.9**	**11.7**	**11.8**	**11.8**
West Virginia	3.5	3.5	3.4	3.4	3.6	3.5
Wisconsin	11.1	11.0	10.5	10.1	9.9	10.5
Wyoming	8.6	8.6	8.4	8.4	8.2	8.5
U.S. Average*	7.9	7.7	7.5	7.3	7.1	7.7
Washington's Rank	**6**	**5**	**5**	**5**	**3**	**5**

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

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