

# Evaluation of Using the 2020 ACS Experimental Weights for Washington State Health Coverage Estimates

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## Executive Summary

The Office of Financial Management Health Care Research Center has been using the U.S. Census Bureau’s American Community Survey (ACS) 1-year Public Use Microdata Sample (PUMS) files since 2014 to monitor changes in health coverage under the Affordable Care Act. In 2020, the ACS experienced significant data collection challenges in the spring months when most of the country was under stay-at-home orders due to the COVID-19 pandemic. These challenges resulted in significant data quality issues for the 2020 ACS. To protect the high quality of the ACS, the Census Bureau decided not to release standard ACS 1-year data products such as the 1-year ACS PUMS.<sup>1</sup> In lieu of the standard ACS 1-year data products, the Census Bureau released the 2020 ACS 1-year estimates and PUMS files with *experimental weights*.<sup>2</sup>

The experimental weights are designed specifically for the 2020 ACS 1-year PUMS and its method differs from that for prior years of data. While the experimental weights help improve data quality from the 2020 data collection, the Census Bureau cautions users that, because of the different methodology employed, “the 2020 PUMS 1-year files using experimental weights should not be compared with other PUMS data” and urges “users to exercise caution when using the 2020 experimental weights and to determine whether the data are suitable for their particular use.”<sup>3</sup>

“Note that the 2020 PUMS 1-year files using experimental weights should not be compared with other PUMS data. The Census Bureau urges data users to exercise caution when using the 2020 experimental data and to determine whether the data are suitable for their particular use.”

– 2020 ACS 1-year  
PUMS Readme

<sup>1</sup> US Census Bureau. *An Assessment of the COVID-19 Pandemic’s Impact on the 2020 ACS 1-year Data*. [https://www.census.gov/content/dam/Census/library/working-papers/2021/acs/2021\\_CensusBureau\\_01.pdf](https://www.census.gov/content/dam/Census/library/working-papers/2021/acs/2021_CensusBureau_01.pdf).

<sup>2</sup> <https://www.census.gov/programs-surveys/acs/data/experimental-data.html>.

<sup>3</sup> US Census Bureau. Readme file for the 2020 ACS 1-year PUMS. [https://www2.census.gov/programs-surveys/acs/experimental/2020/documentation/pums/ACS2020\\_PUMS\\_README.pdf](https://www2.census.gov/programs-surveys/acs/experimental/2020/documentation/pums/ACS2020_PUMS_README.pdf).

As recommended by the Census Bureau, we conducted a review of select estimates using the 2020 ACS experimental weights to determine whether the experimental data are suitable for monitoring health coverage changes in Washington. Our use of the ACS data requires the ability to compare health coverage estimates that are comparable in methodology, data collection and data quality.

Our comparative analysis of select estimates using the 2020 ACS experimental weights and the corresponding estimates from the standard 2019 ACS reveal some unexpected differences and lack of expected differences. For instance, given a stable Medicaid population and a higher unemployment rate in the 2020 ACS relative to the 2019 ACS, we would expect the uninsured rate to increase. But the uninsured rate in the 2020 ACS is essentially the same as in the 2019 ACS. Another example is the poverty rate. Poverty rate is generally correlated to the unemployment rate. Instead of an expected increase in poverty that would correspond to the increase in unemployment as shown at the national level, there is actually a decrease in poverty and near-poverty in the 2020 ACS for Washington.

In some cases, the 2020 ACS estimates show the changes in the expected direction (increase or decrease), but the size of the change is quite different from what administrative data documented. For example, Medicaid enrollment and unemployment rates in the 2020 ACS, while up from 2019, fell far below the levels shown in the state's administrative data.

Such unexpected differences and lack of expected differences in the estimates using the 2020 ACS experimental weights raise

concerns for possible lingering data quality issues from the 2020 data collection and/or new issues introduced by the unique methodology that generated the experimental weights for the 2020 ACS 1-year PUMS.

Based on our review, we have determined that the experimental weights for the 2020 ACS 1-year PUMS are not suitable for our particular need. The Center has thus decided not to release annual health coverage estimates in Washington for 2020. We expect the 2021 ACS data to be less affected by the pandemic. Our annual report on health coverage estimates will resume when the 2021 ACS data become available in late 2022.

## Comparison of the 2020 ACS Estimates Using the Experimental Weights and Corresponding 2019 ACS Estimates

The following is a comparison of health insurance coverage estimates and other select associated estimates for Washington between the standard 2019 ACS and the 2020 ACS using the experimental weights. For certain estimates, we expected to see little difference, such as gender, age, race and ethnicity. For other estimates, such as unemployment and poverty rates, we expected to see some differences. If a difference was found, we attempted to deduce whether the difference is in the expected direction (increase or decrease) and whether the size of the difference is reasonable taking into consideration the data trends, 2020's unique situation of pandemic shutdown and other data sources for which

data quality was not impacted by the pandemic. The table in the Appendix lists all ACS estimates discussed in the following sections.

### Sample size

The 2020 ACS sample for Washington is smaller by about 16% than the sample size for 2019 (65,452 vs 77,879). This should result in increased variance for estimates in 2020 in general. The increased variance may render an otherwise significant difference as non-significant between an estimate for 2020 and the corresponding estimate for 2019. For some estimates for 2020, however, the variances could be actually smaller due to the unique methodology used for the experimental weights.<sup>4</sup>

### Sex

No real difference in estimates for sex was observed between the 2019 ACS and the 2020 ACS. This outcome was expected as the male and female distribution in Washington tends to be stable over time and the variable for sex in the ACS is one of the demographic variables controlled for in the data weighting process.

### Age

The population in age 18-64 accounts for the majority of the state's total population. There was no significant change in this population between the 2019 ACS and the 2020 ACS. Significant changes were observed in the young and the elderly populations, with a decrease in the young and an increase in the elderly. This pattern was expected as it

follows the trend of the last few years in the age distribution and also the age variable is one of the demographic variables controlled for in the ACS weighting process.

### Hispanic origin

There was no marked change in the share of people reporting Hispanic origin. The variable for Hispanic origin is also among the variables controlled for in the ACS weighting process. The increase of 0.3 percentage points (from 13% to 13.3%) of the Hispanic population follows the trend set in the previous few years.

### Race

Due to a change in how the race question was asked in the 2020 Census and also in the 2020 ACS<sup>5</sup>, the white-alone category in the race variable decreased from 74.3% in 2019 ACS to 67.9% in the 2020 ACS. The "two or more races" category, on the other hand, had a large increase, from 6% to 11.3%. This change alone makes the 2020 ACS race variable incomparable to previous years despite the fact the race variable is one of the variables controlled for in the data weighting process. However, this difference is not a result of data quality issues from the 2020 ACS data collection.

### Citizenship

The largest percentage point change between the 2019 ACS and the 2020 ACS in the citizenship categories was that of the non-citizens. The share of non-citizens in the 2020 ACS decreased by 0.6 percentage point. It was the largest absolute percentage point

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<sup>4</sup> US Census Bureau. Public Use Microdata Sample (PUMS) – Accuracy of the Experimental Data: 2020.

<https://www2.census.gov/programs-surveys/acs/experimental/2020/documentation/pums/2020AccuracyPUMS.pdf>.

<sup>5</sup> **Improvements to the Race Question.** <https://www.census.gov/programs-surveys/acs/technical-documentation/user-notes/2021-03.html>.

change since 2014 and for the first time was a decrease (Table 1). While data are lacking to corroborate this change, it is reasonable to speculate that this change is possible as the travel restrictions in 2020 related to the

pandemic caused some non-citizens to return to their home countries before the restrictions were in place and the inflow of non-citizens was significantly reduced.

**Table 1. Percentage of non-citizens: 2014-20, Washington**

|                         | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|-------------------------|------|------|------|------|------|------|------|
| Percent                 | 7.1  | 7.2  | 7.4  | 7.5  | 7.5  | 7.9  | 7.3  |
| Percentage point change |      | 0.1  | 0.2  | 0.1  | 0.1  | 0.3  | -0.6 |

### Unemployment

Unemployment rate increased from 4.6% in the 2019 ACS to 6.1% in the 2020 ACS. Although the increase in unemployment in 2020 is expected, the amount of increase in the 2020 ACS is much smaller than the increase reported by the Washington State Employment Security Department. ESD

reported the average monthly unemployment rate of 8.4% in 2020, doubling that of 4.2% in 2019 (Table 2). The monthly unemployment rate changes in 2020 were more dramatic as shown by the ESD data. In January, the unemployment rate was 4%, but by April it was quadrupled to 16.3%. However, by December the rate dropped to 6.3%.<sup>6</sup>

**Table 2. Seasonally adjusted unemployment rates in 2019 and 2020: Washington**

| YEAR | AVG  | JAN  | FEB  | MAR  | APR   | MAY   | JUN   | JUL   | AUG  | SEP  | OCT  | NOV  | DEC  |
|------|------|------|------|------|-------|-------|-------|-------|------|------|------|------|------|
| 2020 | 8.4% | 4.0% | 4.1% | 5.3% | 16.3% | 12.5% | 10.8% | 10.8% | 9.1% | 8.0% | 7.0% | 6.7% | 6.3% |
| 2019 | 4.2% | 4.5% | 4.5% | 4.4% | 4.3%  | 4.2%  | 4.1%  | 4.1%  | 4.1% | 4.0% | 3.9% | 3.9% | 3.9% |

Data source: Washington State Employment Security Department

Note that the unemployment rate of 4.6% in the 2019 ACS is comparable to the average rate of 4.2% for 2019 reported by ESD. If the 2020 ACS unemployment rate were also to

double over the 2019 rate, as is the rate reported by ESD, the expected rate in the 2020 ACS would be 9.2%, compared to 6.1% currently in the 2020 ACS.

<sup>6</sup> <https://esd.wa.gov/labormarketinfo/labor-force>. Data cited here are in the Excel file for seasonally adjusted historical estimates of labor force.

### Occupation

During the pandemic shutdown in 2020, ESD reported large numbers of unemployment claims from the management occupation. The management occupation had the largest number of unemployment claims of all reported occupations for several weeks. Thus, it is reasonable to expect the management occupation in the 2020 ACS to have a decrease, at least in number of workers, if not in both number of workers and percent of all occupations, when compared with the 2019 ACS. In the 2020 ACS, however, the employment for

management occupation increased over 2019 both in number of workers and as percent of all occupations (505,500 to 535,500 and 10.7% to 11.2%).

### Education attainment

Significantly more people are reported to have at least a 4-year college degree, by 1.2 percentage points, in the 2020 ACS (27.9%) than in the 2019 ACS (26.7%). The college-educated population was on the rise in the previous years as well, but the increase before 2020 was more gradual, ranging from 0.3 to 0.9 percentage points.

**Table 3. Percentage of population with college degrees: 2014-20, Washington**

|                         | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|-------------------------|------|------|------|------|------|------|------|
| Percent                 | 23.5 | 24.2 | 25.1 | 25.6 | 26.4 | 26.7 | 27.9 |
| Percentage point change |      | 0.7  | 0.8  | 0.5  | 0.9  | 0.3  | 1.2  |

### Poverty

Poverty and near-poverty (below 200% FPL) rates both dropped in the 2020 ACS over the previous year. When combined these two categories have a decrease of about 0.9 percentage point (22.8% to 22%). Nationally, poverty rate increased in 2020 by one percentage point from 10.4% to 11.4%, according to the Census Bureau report using the 2021 Current Population Survey Annual Social and Economic Supplement.<sup>7</sup> The Census Bureau noted that this is the first increase in poverty after five consecutive annual declines. One can reasonably argue that the increase in the national poverty rate

“The official poverty rate in 2020 was 11.4%, up 1.0 percentage point from 2019. This is the first increase in poverty after five consecutive annual declines.”

“The total number of those who worked full-time, year-round declined by 13.7 million between 2019 and 2020. This was the largest year-to-year decline in the number of full-time, year-round workers since 1967, the first year for which there is comparable data.”

– US Census Bureau. *Income, Poverty, and Health Insurance Coverage in the United States: 2020*

<sup>7</sup> US Census Bureau. *Income, Poverty, and Health Insurance Coverage in the United States: 2020*. (<https://www.census.gov/newsroom/press-releases/2021/income-poverty-health-insurance-coverage.html#:~:text=The%20official%20poverty%20rate%20in,million%20more%20than%20in%202019>)

is related to higher unemployment in 2020 as the nation’s unemployment rate doubled to 8.1% in 2020 from 3.9% in 2019<sup>8</sup>. The unemployment increase at the national level is similar to the increase in Washington as reported by ESD, although measurements in the two sources are somewhat different. Given the increase in the US poverty rate and the similar change in unemployment in the US and Washington, it is reasonable to expect Washington’s poverty rate to increase in 2020 instead of decreasing.

We also analyzed data for Washington in the Current Population Survey Annual Social and Economic Supplement and the results show, like the nation, Washington’s poverty rate and near-poverty rate both increase in 2020. In fact, the increase in the percentage of the population below 200% of the poverty level is greater for Washington (1.8 percentage points) than that for US (1.2 percentage points).

**Table 4. Percentage of population below 200% of the federal poverty level: US and Washington, 2019 and 2020**

|              | 2019 (CPS 2020) | 2020(CPS 2021) | Difference |
|--------------|-----------------|----------------|------------|
| <b>US</b>    |                 |                |            |
| 0-99% FPL    | 10.5            | 11.4           | 1.0        |
| 100-199% FPL | 15.8            | 16.1           | 0.2        |
| 0-199% FPL   | 26.3            | 27.5           | 1.2        |
| <b>WA</b>    |                 |                |            |
| 0-99% FPL    | 7.0             | 8.3            | 1.3        |
| 100-199% FPL | 11.7            | 12.2           | 0.5        |
| 0-199% FPL   | 18.7            | 20.4           | 1.8        |

Source: Staff analysis of public use files for the 2020 and 2021 Current Population Survey Annual Social and Economic Supplement.

### Health coverage

Health coverage in the ACS consists of seven categories: 1. employment-based insurance (EBI), 2. self-purchased insurance, 3. Medicare, 4. Medicaid, 5. coverage by the military, 6. Coverage by the Veterans Affairs (VA) and 7. uninsured. While the category of uninsured is mutually exclusive from the other categories, the other categories are not mutually exclusive among themselves. Of the seven categories, we expect estimates

for Medicare, military and VA in 2020 to continue the pre-pandemic patterns because the pandemic should not have any impact on the eligibility for these three categories. We focused on the remaining four categories that are susceptible to the effect of the pandemic.

First, the uninsured rate of 6.5% in the 2020 ACS is not statistically different from the rate of 6.6% in the 2019 ACS. EBI increased by 0.4 percentage point from 58% to 58.4%,

The poverty estimate in the CPS ASEC is based on income for the prior calendar year.

<sup>8</sup>[https://data.bls.gov/timeseries/LNU04000000?periods=Annual+Data&periods\\_option=specific\\_periods&years\\_option=all\\_years](https://data.bls.gov/timeseries/LNU04000000?periods=Annual+Data&periods_option=specific_periods&years_option=all_years)

although the difference is not statistically significant. Self-purchased insurance had a significant increase, by 0.5 percentage point, from 12.5% to 13%. Medicaid coverage rate in the 2020 ACS (20.2%) is statistically the same as the rate in the 2019 ACS (20.1%).<sup>9</sup>

EBI changes in response to changes in unemployment, i.e., the higher the unemployment, the lower the EBI and vice versa. Medicaid and self-purchased insurance, in turn, usually respond to changes in EBI – when people lose EBI coverage, they may become eligible for Medicaid or purchase insurance on their own to continue the coverage. When people become employed and their employment provides health insurance, they would drop Medicaid or self-purchased insurance.<sup>10</sup> However, 2020 was a unique year. Medicaid enrollment grew when unemployment had a dramatic increase in the spring months; but when unemployment rapidly declined afterwards, Medicaid enrollment continued to grow, thanks to the Public Health Emergency declaration for COVID-19 issued in 2020 by the federal government that temporarily suspended Medicaid’s annual eligibility redetermination.

With the 1.5 percentage point increase in unemployment rate in the 2020 ACS (which in itself is significantly under-estimated when

compared with data reported by ESD), we expect the EBI in the 2020 ACS to decrease. Instead of a decrease, the employment-based insurance shows an increase (in both number of persons and percentage of persons it covered), though the increase is not statistically significant.

Finally, the 2020 ACS estimate for Medicaid population does not reflect the magnitude of Medicaid increase documented in the administrative data. While the increase in Medicaid population in the 2020 ACS is 1.6% or about 24,500 persons over the previous year, the Medicaid administrative data show an increase of 4% or about 70,000 from June 2019 to June 2020 and an increase of 10.6% or about 185,000 from December 2019 to December 2020. Underreporting of the Medicaid population worsened in the 2020 ACS. In 2019, the ACS estimate of Medicaid population is at 87.3% of the administrative data for December. In 2020, the ACS estimate is at only 80.3% level of the administrative data for December. If we apply the level of Medicaid underreport in the 2019 ACS (87.3%) to the December 2020 Medicaid population in administrative data (1,934,700), we would arrive at a higher estimate of 1,689,700 for Medicaid population in the 2020 ACS, as compared to the current estimate of 1,552,900.

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<sup>9</sup> These figures are unadjusted numbers from the ACS 1-year PUMS file. When we produce annual coverage estimates using the ACS 1-year PUMS, we adjust, starting in 2014, for the underreport of Medicaid population in the ACS.

<sup>10</sup> <https://www.kff.org/wp-content/uploads/2013/03/7850.pdf>

Table 5. ACS estimates and administrative counts of Medicaid population: 2019-20, Washington

|                        | Medicaid administrative counts |           | ACS       | ACS as percent of Medicaid June administrative counts | ACS as percent of Medicaid December administrative counts | Expected 2020 ACS report if held at the 2019 report level over December administrative counts |
|------------------------|--------------------------------|-----------|-----------|---|---|---|
|                        | June                           | December  |           |   |   |   |
| 2019                   | 1,742,200                      | 1,750,000 | 1,528,400 | 87.7%   | 87.3%   | 1,689,700   |
| 2020                   | 1,811,800                      | 1,934,700 | 1,552,900 | 85.7%   | 80.3%   |   |
| Difference (2020-2019) |                                |           |           |   |   |   |
| Number                 | 69,600                         | 184,700   | 24,500    | -2.0%   | -7.1%   |   |

Note: Medicaid enrollees receiving partial benefits or temporary support are excluded in the administrative counts.

## Conclusion

Our review of select estimates from the 2020 ACS 1-year PUMS for Washington using the experimental weights and the corresponding estimates from the standard 2019 ACS reveal that while estimates for variables used in the ACS weighting show no unexpected differences, estimates for several other variables show unexpected differences, lack of expected differences, or the amount of the difference is not comparable to the difference found in other data sources of

which data quality was not affected by the pandemic in 2020. Among the estimates of chief concerns are those for unemployment, employment-based insurance, Medicaid enrollment, and poverty. **Based on the review, the Center has decided that the 2020 ACS experimental weights are not suitable for our use in reporting health coverage changes in Washington.** We will therefore not release the annual estimates of health coverage in Washington for 2020. We plan to resume the reporting with the 2021 ACS data, expected for release in late 2022.



## Appendix

### Comparison of 2020 ACS Estimates Using the Experimental Weights and 2019 ACS Estimates for Washington

|  | Changes in Percentages |      |            |        | Changes in Numbers |           |            |        |
|--|------------------------|------|------------|--------|--------------------|-----------|------------|--------|
|  | 2019                   | 2020 | Difference |        | 2019               | 2020      | Difference |        |
|  |                        |      | 20-19      | % Diff |                    |           | 20-19      | % Diff |
| <b>Sex</b>                                       |                        |      |            |        |                    |           |            |        |
| male   | 50.0                   | 50.1 | 0.1        | 0.1%   | 3,810,500          | 3,855,700 | 45,200     | 1.2%   |
| female   | 50.0                   | 49.9 | -0.1       | -0.1%  | 3,804,400          | 3,841,700 | 37,300     | 1.0%   |
| <b>Age</b>                                       |                        |      |            |        |                    |           |            |        |
| 0-17   | 21.8                   | 21.6 | -0.2       | -1.0%  | 1,661,300          | 1,662,100 | 800        | 0.0%   |
| 18-26  | 11.5                   | 11.5 | 0.0        | -0.2%  | 876,800            | 884,900   | 8,100      | 0.9%   |
| 27-64  | 50.8                   | 50.9 | 0.1        | 0.1%   | 3,868,600          | 3,915,300 | 46,700     | 1.2%   |
| 65+  | 15.9                   | 16.0 | 0.2        | 1.1%   | 1,208,200          | 1,235,100 | 26,900     | 2.2%   |
| <b>Hispanic</b>                                  |                        |      |            |        |                    |           |            |        |
| no   | 87.0                   | 86.7 | -0.3       | -0.4%  | 6,623,100          | 6,670,100 | 47,000     | 0.7%   |
| yes  | 13.0                   | 13.3 | 0.3        | 2.5%   | 991,800            | 1,027,300 | 35,500     | 3.6%   |
| <b>Race</b>                                      |                        |      |            |        |                    |           |            |        |
| white alone                                      | 74.3                   | 67.9 | -6.4       | -8.6%  | 5,659,100          | 5,226,400 | -432,700   | -7.6%  |
| black or African American alone                  | 4.1                    | 3.9  | -0.2       | -4.7%  | 310,800            | 299,400   | -11,400    | -3.7%  |
| American Indian or Alaska Native alone           | 1.3                    | 1.3  | 0.0        | -1.1%  | 102,300            | 102,300   | 0          | 0.0%   |
| Asian alone                                      | 9.0                    | 9.3  | 0.4        | 4.1%   | 683,000            | 719,000   | 36,000     | 5.3%   |
| Native Hawaiian and Other Pacific Islander alone | 0.7                    | 0.7  | 0.1        | 9.0%   | 51,200             | 56,400    | 5,200      | 10.2%  |
| some other race alone                            | 4.6                    | 5.6  | 0.9        | 20.2%  | 352,200            | 427,900   | 75,700     | 21.5%  |
| two or more races                                | 6.0                    | 11.3 | 5.3        | 87.8%  | 456,200            | 866,000   | 409,800    | 89.8%  |
| <b>Citizenship</b>                               |                        |      |            |        |                    |           |            |        |
| born in the U.S.                                 | 83.4                   | 83.5 | 0.1        | 0.1%   | 6,352,300          | 6,428,200 | 75,900     | 1.2%   |
| born in U.S. Territories                         | 0.3                    | 0.3  | 0.0        | -7.9%  | 22,000             | 20,500    | -1,500     | -6.8%  |
| born abroad of American parent(s)                | 1.4                    | 1.6  | 0.2        | 12.0%  | 108,300            | 122,500   | 14,200     | 13.1%  |
| U.S. citizen by naturalization                   | 7.0                    | 7.4  | 0.4        | 5.3%   | 532,300            | 566,500   | 34,200     | 6.4%   |
| not a citizen of the U.S.                        | 7.9                    | 7.3  | -0.6       | -7.7%  | 600,100            | 559,600   | -40,500    | -6.7%  |
| <b>Education</b>                                 |                        |      |            |        |                    |           |            |        |
| no four-year college degree                      | 73.3                   | 72.1 | -1.2       | -1.6%  | 5,581,100          | 5,553,000 | -28,100    | -0.5%  |
| four-year college degree or higher               | 26.7                   | 27.9 | 1.2        | 4.3%   | 2,033,800          | 2,144,400 | 110,600    | 5.4%   |
| <b>Income</b>                                    |                        |      |            |        |                    |           |            |        |
| less than 200% FPL                               | 22.8                   | 22.0 | -0.9       | -3.8%  | 721,200            | 715,900   | -5,300     | -0.7%  |
| 200% FPL or above                                | 75.2                   | 76.1 | 0.9        | 1.2%   | 350,100            | 319,200   | -30,900    | -8.8%  |
| income not reported                              | 1.9                    | 1.9  | 0.0        | -0.1%  | 146,300            | 147,800   | 1,500      | 1.0%   |

Shaded cell denotes significant difference between 2019 ACS estimate and 2020 ACS estimates using experimental weights.

### A Comparison of 2020 ACS Estimates Using the Experimental Weights and 2019 ACS Estimates for Washington (continued)

|  | Changes in Percentages |      |            |        | Changes in Numbers |           |            |        |
|--|------------------------|------|------------|--------|--------------------|-----------|------------|--------|
|  | 2019                   | 2020 | Difference |        | 2019               | 2020      | Difference |        |
|  |                        |      | 20-19      | % Diff |                    |           | 20-19      | % Diff |
| <b>Labor force status (age 16 and older)</b>     |                        |      |            |        |                    |           |            |        |
| civilian employed, at work                       | 93.2                   | 91.1 | -2.1       | -2.3%  | 3,676,700          | 3,531,600 | -145,100   | -3.9%  |
| civilian employed, with a job but not at work    | 2.2                    | 2.8  | 0.6        | 27.0%  | 86,700             | 108,300   | 21,600     | 24.9%  |
| unemployed                                       | 4.6                    | 6.1  | 1.5        | 33.7%  | 180,900            | 237,900   | 57,000     | 31.5%  |
| <b>Occupation (working and age 16 and older)</b> |                        |      |            |        |                    |           |            |        |
| management                                       | 10.7                   | 11.2 | 0.5        | 4.8%   | 505,500            | 535,500   | 30,000     | 5.9%   |
| business   | 3.6                    | 3.8  | 0.2        | 5.1%   | 169,800            | 180,500   | 10,700     | 6.3%   |
| finance  | 1.8                    | 1.8  | 0.0        | 0.9%   | 85,100             | 86,800    | 1,700      | 2.0%   |
| computer   | 5.0                    | 5.3  | 0.3        | 5.7%   | 235,600            | 251,700   | 16,100     | 6.8%   |
| engineering                                      | 2.5                    | 2.8  | 0.2        | 8.1%   | 120,200            | 131,400   | 11,200     | 9.3%   |
| science  | 1.2                    | 1.2  | 0.0        | 2.6%   | 55,800             | 57,900    | 2,100      | 3.8%   |
| counselors/social workers                        | 1.9                    | 1.8  | -0.1       | -3.0%  | 87,400             | 85,700    | -1,700     | -1.9%  |
| legal  | 1.0                    | 1.1  | 0.1        | 10.9%  | 45,300             | 50,800    | 5,500      | 12.1%  |
| education  | 5.8                    | 6.3  | 0.5        | 9.4%   | 271,600            | 300,300   | 28,700     | 10.6%  |
| entertainment                                    | 2.3                    | 2.2  | -0.1       | -3.9%  | 110,300            | 107,100   | -3,200     | -2.9%  |
| medical  | 5.1                    | 5.1  | 0.0        | 0.7%   | 240,000            | 244,300   | 4,300      | 1.8%   |
| health aids                                      | 3.5                    | 3.5  | 0.0        | -0.5%  | 167,200            | 168,300   | 1,100      | 0.7%   |
| corrections/fire                                 |                        |      |            |        |                    |           |            |        |
| fighters/security                                | 1.9                    | 1.7  | -0.2       | -10.3% | 90,300             | 81,900    | -8,400     | -9.3%  |
| food service                                     | 6.0                    | 5.5  | -0.4       | -7.3%  | 280,600            | 263,100   | -17,500    | -6.2%  |
| cleaning service/grounds                         |                        |      |            |        |                    |           |            |        |
| maintenance                                      | 3.7                    | 3.2  | -0.6       | -14.8% | 175,200            | 150,800   | -24,400    | -13.9% |
| personal care/service                            |                        |      |            |        |                    |           |            |        |
| worker   | 2.9                    | 2.8  | -0.1       | -3.2%  | 134,800            | 131,900   | -2,900     | -2.2%  |
| sales  | 8.7                    | 8.9  | 0.1        | 1.6%   | 412,200            | 423,500   | 11,300     | 2.7%   |
| office worker                                    | 9.6                    | 9.5  | -0.1       | -1.2%  | 453,300            | 452,600   | -700       | -0.2%  |
| agriculture/forestry                             | 1.6                    | 1.8  | 0.2        | 15.4%  | 75,500             | 88,200    | 12,700     | 16.8%  |
| construction                                     | 4.8                    | 4.8  | 0.0        | -0.8%  | 226,900            | 227,400   | 500        | 0.2%   |
| extraction                                       | 0.1                    | 0.1  | 0.0        | -33.3% | 4,900              | 3,300     | -1,600     | -32.7% |
| installation/maintenance/re                      |                        |      |            |        |                    |           |            |        |
| pair   | 2.9                    | 2.8  | -0.1       | -3.7%  | 137,500            | 134,000   | -3,500     | -2.5%  |
| production worker                                | 4.5                    | 4.4  | -0.1       | -2.0%  | 213,400            | 211,400   | -2,000     | -0.9%  |
| transportation                                   | 7.4                    | 7.1  | -0.3       | -4.4%  | 351,200            | 339,400   | -11,800    | -3.4%  |
| military   | 0.7                    | 0.8  | 0.0        | 2.3%   | 34,700             | 35,900    | 1,200      | 3.5%   |
| unemployed                                       | 0.6                    | 0.5  | -0.2       | -26.8% | 29,300             | 21,700    | -7,600     | -25.9% |

Shaded cell denotes significant difference between 2019 ACS estimate and 2020 ACS estimates using experimental weights.

### Comparison of 2020 ACS Estimates Using the Experimental Weights and 2019 ACS Estimates for Washington (continued)

|  | Changes in Percentages |      |            |        | Changes in Numbers |           |            |        |
|--|------------------------|------|------------|--------|--------------------|-----------|------------|--------|
|  | 2019                   | 2020 | Difference |        | 2019               | 2020      | Difference |        |
|  |                        |      | 20-19      | % Diff |                    |           | 20-19      | % Diff |
| Health coverage                            |                        |      |            |        |                    |           |            |        |
| insured                                    | 93.4                   | 93.5 | 0.2        | 0.2%   | 7,110,800          | 7,199,900 | 89,100     | 1.3%   |
| uninsured                                  | 6.6                    | 6.5  | -0.2       | -2.4%  | 504,100            | 497,500   | -6,600     | -1.3%  |
| Covered by employment-based insurance      |                        |      |            |        |                    |           |            |        |
| yes  | 58.0                   | 58.4 | 0.4        | 0.7%   | 4,418,200          | 4,498,000 | 79,800     | 1.8%   |
| no   | 42.0                   | 41.6 | -0.4       | -1.0%  | 3,196,700          | 3,199,400 | 2,700      | 0.1%   |
| Covered by self-purchased insurance policy |                        |      |            |        |                    |           |            |        |
| yes  | 12.5                   | 13.0 | 0.5        | 3.8%   | 950,600            | 997,000   | 46,400     | 4.9%   |
| no   | 87.5                   | 87.0 | -0.5       | -0.5%  | 6,664,300          | 6,700,400 | 36,100     | 0.5%   |
| Covered by Medicare                        |                        |      |            |        |                    |           |            |        |
| yes  | 17.1                   | 17.4 | 0.3        | 1.8%   | 1,304,700          | 1,342,400 | 37,700     | 2.9%   |
| no   | 82.9                   | 82.6 | -0.3       | -0.4%  | 6,310,200          | 6,355,000 | 44,800     | 0.7%   |
| Covered by Medicaid                        |                        |      |            |        |                    |           |            |        |
| yes  | 20.1                   | 20.2 | 0.1        | 0.5%   | 1,528,400          | 1,552,900 | 24,500     | 1.6%   |
| no   | 79.9                   | 79.8 | -0.1       | -0.1%  | 6,086,500          | 6,144,400 | 57,900     | 1.0%   |
| Covered by military                        |                        |      |            |        |                    |           |            |        |
| yes  | 4.8                    | 4.7  | -0.1       | -3.0%  | 366,900            | 359,600   | -7,300     | -2.0%  |
| no   | 95.2                   | 95.3 | 0.1        | 0.2%   | 7,248,000          | 7,337,800 | 89,800     | 1.2%   |
| Covered by VA                              |                        |      |            |        |                    |           |            |        |
| yes  | 2.5                    | 2.3  | -0.2       | -7.2%  | 192,500            | 180,500   | -12,000    | -6.2%  |
| no   | 97.5                   | 97.7 | 0.2        | 0.2%   | 7,422,400          | 7,516,900 | 94,500     | 1.3%   |

Shaded cell denotes significant difference between 2019 ACS estimate and 2020 ACS estimates using experimental weights.