

## WASHINGTON STATE HEALTH SERVICES RESEARCH PROJECT

## Health Coverage Disparities Associated with Immigration Status in Washington State's Non-elderly Adult Population: 2010-17

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### Introduction

Since 2014, the health coverage of Washington state's population has made remarkable gains thanks to the implementation of key provisions of the Patient Protection and Affordable Care Act. The state's population without health coverage dropped from 14 percent in 2013 to 5.5 percent in 2017.<sup>1</sup> The ACA provision that has had the largest effect in increasing coverage in Washington is the expansion of Medicaid.<sup>2</sup> The availability of federal subsidies in purchasing marketplace coverage policies also contributed to the reduction of the uninsured. These federal programs, however, have strict eligibility criteria for citizenship and legal immigrant status in addition to income. As a result, progress in expanding health coverage was uneven across population groups as defined by immigration status.

Washington state's population includes a significant share of immigrants. According to a recent Office of Financial Management research brief, in 2017, approximately one million of the state's population, or 14 percent, were first-generation immigrants.<sup>3</sup> While many of the first-generation immigrants have obtained citizenship through naturalization, approximately half of them are non-citizens.

The purpose of this research brief is to assess the disparities before and after the ACA in health coverage between Washington's US-born citizen population and three immigrant populations: naturalized citizens, legal immigrants and undocumented immigrants. The American Community Survey 1-year Public Use Micro Sample files for 2010-17 were used in this research brief. We limit our analysis to adults age 18-64, as this population experienced the most notable coverage changes under the ACA.

### Highlights

*In 2017, immigrants made up 18.2 percent (or 843,000) of the population age 18-64 in Washington, an increase from 16.3 percent in 2010.*

*The increase stemmed from the naturalized citizen group (7.1 to 8.3 percent) and the legal immigrant group (4.0 to 4.6 percent) while the undocumented immigrant group's share of 5.2 percent remained unchanged.*

*Uninsured rates declined in all population groups between 2013 and 2017 under the ACA:*

- *US-born citizens: 16.8 to 5.7%*
- *Naturalized citizens: 20 to 5.7%*
- *Legal immigrants: 28.9 to 12.9%*
- *Undocumented immigrants: 56.2 to 40.7%*

*Non-citizens are not eligible for key ACA coverage expansion programs. Because of the faster health coverage gains in the citizen groups through these programs, the coverage disparities between the non-citizens, particularly undocumented immigrants, and citizens widened:*

- *Non-citizens' share of the total uninsured population increased from 22.1 percent in 2013 to 34.7 percent in 2017.*
- *The gap between the undocumented immigrant group's uninsured rate and that of the US-born citizen group more than doubled between 2013 and 2017*
- *In 2017, undocumented immigrants were 11.1 times as likely to be uninsured as US-born citizens, when other population characteristics were held as equal.*

<sup>1</sup> Yen, W. and Mounts, T. December 2018. "After a Three Year Decline, Washington's Uninsured Rate Shows No Change in 2017." Washington State Office of Financial Management, Research Brief No. 89.

<sup>2</sup> Yen, W. and Mounts, T. April 2016. "Medicaid Growth Under the ACA: A Game-Changer in Reducing Washington's Uninsured in 2014." Washington State Office of Financial Management, Research Brief No. 76.

<sup>3</sup> Yen, W. March 2019. "Washington State's Immigrant Population: 2010-17." Washington State Office of Financial Management, Research Brief No. 90.

## Non-elderly Adult Population Changes in the US-born Citizen Group and the Immigrant Groups, 2010-17

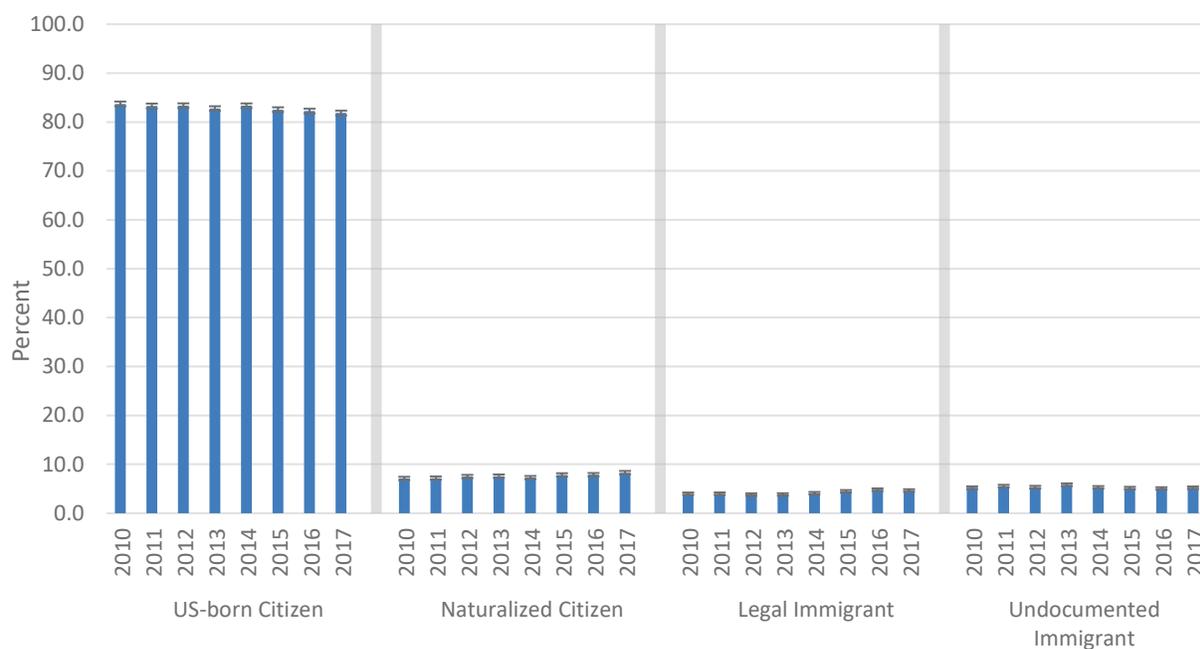
Washington state's non-elderly population increased from 4.3 million in 2010 to 4.6 million in 2017 (Table 1). The population increased in all four population groups as defined by their immigration status: the US-born citizen group from 3.6 million to 3.8 million, the naturalized citizen group from 308,000 to 385,000, the legal immigrant group from 172,000 to 216,000 and the undocumented immigrant group from 226,000 to 242,000. In total, there were 843,000 (18.2 percent) immigrants in 2017 in Washington's non-elderly adult population.

Table 1. Washington State Non-Elderly Adult Population (in thousands) by Immigration Status, 2010-17

Immigration Status	2010	2011	2012	2013	2014	2015	2016	2017	2010-17 change (percent)
State Total Population	4,329	4,391	4,411	4,428	4,468	4,526	4,582	4,645	7.3
US-born Citizen	3,623	3,657	3,676	3,664	3,723	3,735	3,768	3,801	4.9
Immigrant	705	734	735	764	745	790	813	843	19.6
Naturalized Citizen	308	316	331	336	325	355	361	385	25.3
Legal Immigrant	172	175	169	170	183	203	220	216	25.5
Undocumented Immigrant	226	243	235	258	236	233	232	242	7.3

While there was an increase in the absolute number from 2010 to 2017 in each of these groups, the proportions of these groups in the total population took different paths. The US-born citizen group's share dropped by about 2 percentage points from 83.7 percent to 81.8 percent (Figure 1). The share of naturalized citizens increased by more than one percentage point from 7.1 percent to 8.3 percent. The legal immigrant group's share increased by about half a percentage point from 4 percent to 4.6 percent. Finally, the undocumented immigrant group's share was 5.2 percent in 2017, the same share the group had in 2010.

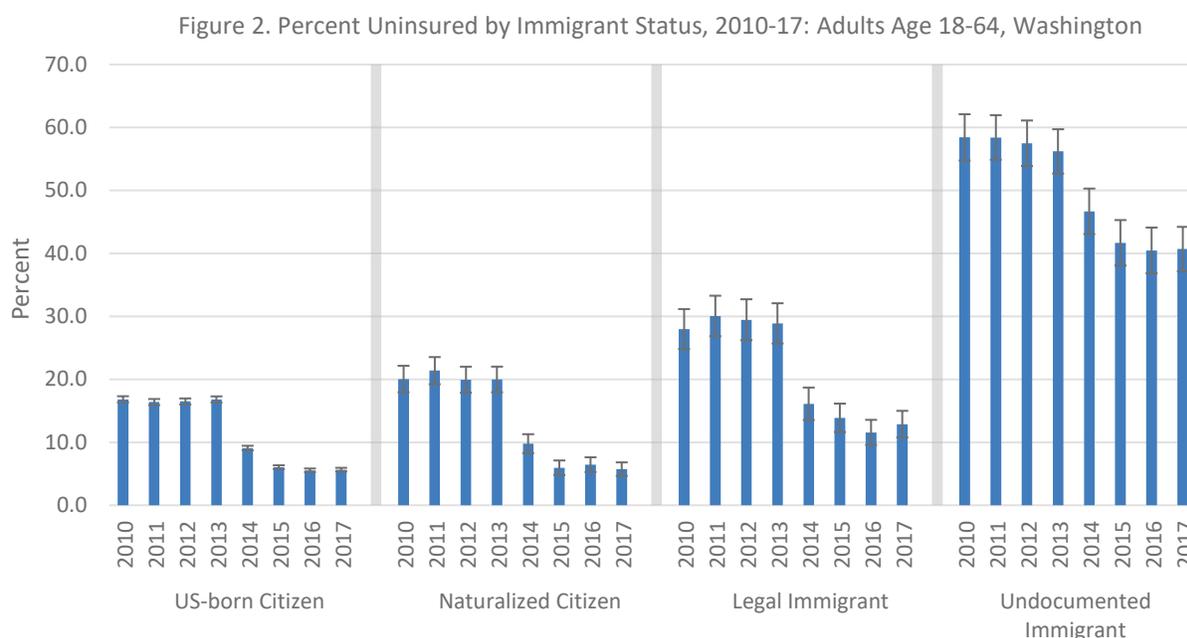
Figure 1. Percent of Non-Elderly Adult Population by Immigrant Status, 2010-17: Washington



## Health Coverage Changes of the Non-elderly Adults in US-born Citizen Group and the Immigrant Groups, 2010-17

The data in Figure 2 below highlight two patterns in the health coverage changes among the population groups. First, for all population groups, their uninsured rates remained stable but high between 2010 and 2013. In 2014, all groups experienced significant reductions in their uninsured rates following the ACA implementation. Their rates declined further in 2015 and became stable again afterwards. The second pattern is that the two non-citizen groups, particularly the undocumented immigrant group, had significantly higher uninsured rates than the two citizen groups both before and after the ACA implementation.

Prior to 2014, the uninsured rates of the four groups were all high although there was considerable variation. The US-born citizen group had the lowest rates, at about 17 percent. Next was the naturalized citizen group, with rates at about 20 percent. The legal immigrant group's uninsured rate was close to 30 percent. The uninsured rate of the undocumented immigrant group was the highest, and it stayed above 55 percent. Differences between the groups in their uninsured rates were statistically significant in all four years from 2010 to 2013.

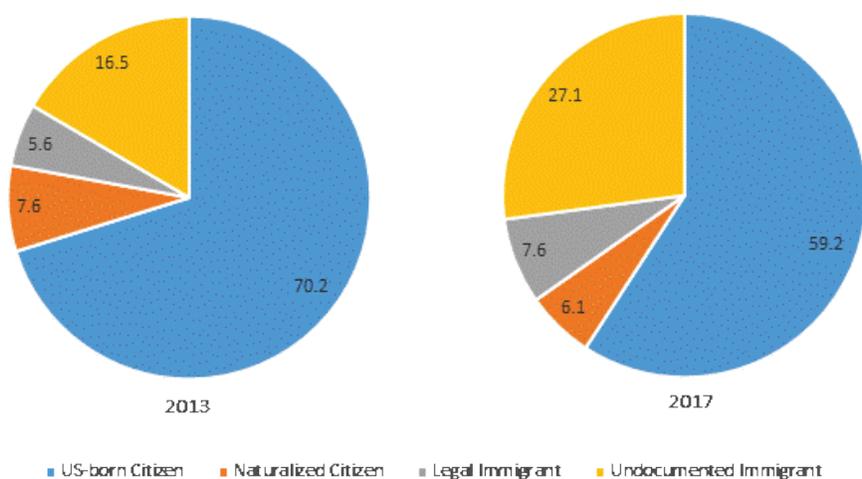


When major coverage provisions of the ACA were implemented in 2014, the uninsured rates of all four groups declined significantly. In the first year alone, the uninsured rate of the US-born citizen declined by 7.7 percentage points to 9.1 percent and the naturalized citizen group's rate declined by 10.2 percentage points to 9.8 percent. By 2014, there was no longer a statistical difference in the uninsured rates between these two groups. The two non-citizen groups also experienced large declines in their uninsured rates. The legal immigrant group had a 13 percentage-point drop to 16.1 percent and the undocumented immigrant group had a drop of 9.5 percentage points to 46.7 percent.

In 2015, the uninsured rates of all population groups declined further, though at a slower pace, and remained stable in the next two years. From 2015 to 2017, the rate of the US-born citizen group dropped another three percentage points to 5.7 percent. The rate of the naturalized citizen group dropped another 4 percentage points and ended up with the same rate as US-born citizen group, at 5.7 percent. The legal immigrant group's rate dropped another 3 percentage points to 12.9 percent while the undocumented immigrant group's rate dropped another 6 percentage points to 40.7 percent.

Shares that made up the total uninsured by the four groups changed significantly between 2013 and 2017. In 2013, undocumented immigrants made up 16.5 percent of the uninsured and legal immigrant made up another 5.6 percent, with a combined total of 22.1 percent of the uninsured being non-citizens (Figure 3). In 2017, undocumented immigrant group's share of the uninsured increased to 27.1 percent and the legal immigrant group's rate to 7.6 percent, with a total of 34.7 percent between these two non-citizen groups. On the other hand, the US-born citizen group's share decreased from 70.2 percent to 59.2 percent and the naturalized citizen group's share from 7.6 percent to 6.1 percent.

Figure 3. Shares (percent) of the Uninsured Population Age 18-64 by Immigrant Status: 2013 and 2017, Washington



### Uneven Coverage Gains Resulted in Widened Disparities

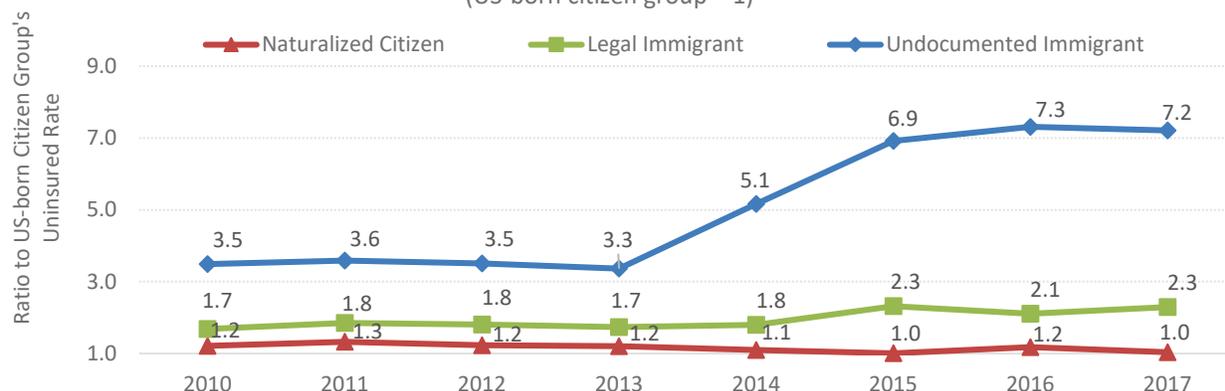
To examine whether the four population groups made similar gains in health coverage under the ACA, we constructed ratios of the uninsured rates of the immigrant groups to the uninsured rates of the US-born citizen group for each year from 2010 to 2017. These ratios allow us to measure how different the uninsured rates of the immigrant groups were when compared to the uninsured rates of the US-born citizen group. A ratio of one means that there is no difference.

Figure 4 below shows that, although the uninsured rates of the immigrant groups were higher than the US-born citizen group's rates prior to 2014, the differences remained relatively stable across time. The naturalized citizen group's ratios were about 1.2-1.3, meaning that their uninsured rates were about 1.2-1.3 times as high as those of the US-born citizen group. The legal immigrant group's ratios were slightly larger, between 1.7 and 1.8. The undocumented immigrant group's ratios, the largest of all, ranged between 3.3 and 3.6.

In 2014, the ratio for the naturalized citizen group declined slightly to 1.1 from the previous year's 1.2. The ratio for the legal immigrant group essentially remained the same. However, the gap widened considerably for the undocumented immigrant group, growing to 5.1.

From 2015 to 2017, the ratios changed little for the naturalized citizen group. For the legal immigrant group, the ratio had a slight increase in 2015, to 2.3, and remained relatively stable afterwards. For the undocumented immigrant group, the ratio increased again, to 6.9, in 2015 and underwent yet another increase in 2016 to 7.3 before dropping slightly to 7.2. This means that for the undocumented immigrant group, the gap between their uninsured rate and that of the US-born citizen group more than doubled between 2013 and 2017, due to a faster decline in the latter group's uninsured rate.

Figure 4. Ratios of Non-US-born Groups' Uninsured Rates To US-born Citizen Group's Uninsured Rate, 2010-17: Washington  
(US-born citizen group = 1)



### The Undocumented Immigrant Status Has the Strongest Association with Uninsurance

Lack of health coverage may be related to many factors besides immigration status. We applied a statistical model to the 2017 ACS data to see whether differences in uninsured rates associated with immigration status would hold true when put in the context of other factors. The predictors in the logistic regression model included age, sex, race and Hispanic ethnicity, education, employment and family income, in addition to immigration status. The model results show that being uninsured is related to all these factors except age for the non-elderly adults. For instance, a male is 1.3 times as likely as a female to be uninsured or a person of Hispanic ethnicity is 1.9 times as likely as a non-Hispanic white person to be uninsured, when the other factors are held equal (Table 2). However, being an undocumented immigrant has the most pronounced effect: after controlling for the other factors, an undocumented immigrant is 11.1 times as likely to be uninsured as a US-born citizen. A legal immigrant is nearly two times as likely and a naturalized citizen immigrant about 1.2 times as likely.

Table 2. Probability of Being Uninsured

Demographic and Socio-economic Predicators	Odds Ratio	95 percent Confidence Limits
Immigration Status (Compared to US-born Citizen)		
Naturalized Citizen	1.228	1.073-1.406
Legal Immigrant	1.988	1.749-2.260
Undocumented Immigrant	11.148	8.752-14.199
Age		
Each Additional Year in Age	1.000	0.997-1.004
Sex (Compared to Female)		
Male	1.320	1.255-1.389
Race/Ethnicity (Compared to Non-Hispanic White)		
Hispanic	1.971	1.744-2.227
Non-Hispanic API	0.438	0.377-0.510
Non-Hispanic Other Race	1.223	1.012-1.479
Education (Compared to Education of College or Higher)		
No 4-year College Education	2.404	2.220-2.603
Employment (Compared to Employed)		
Unemployed	2.225	2.009-2.465
Not in Labor Force	0.965	0.904-1.031
Income (Compared to High-income [400 percent FPL and above])		
Middle-income (200-399 percent FPL)	2.384	2.201-2.583
Low-income (<200 percent FPL)	3.021	2.714-3.363

## Summary and Implications

In Washington state's non-elderly adult population, approximately one in six (about 843,000) is a first-generation immigrant. Following the implementation of the ACA, uninsured rates declined dramatically in Washington in the immigrant groups as well as the US-born citizen group. However, the ACA's most notable coverage provisions, namely the Medicaid expansion and subsidy for marketplace plans' premiums, require citizenship or legal immigrant status in addition to income eligibility. Due to these requirements, immigration status is linked to increased disparities in health coverage between citizens and non-citizens in Washington post the ACA implementation in 2014. The effect of being an undocumented immigrant on lack of coverage is particularly strong. Undocumented immigrants are 11 times as likely to be uninsured as US-born citizens after taking into consideration other demographic and socio-economic factors. It should be pointed out, though, that the widened disparities do not suggest that health coverage worsened for non-citizens under the ACA. It simply shows that the gaps widened due to faster progresses in health coverage gains in the citizen population groups.

Lack of health coverage negatively affects access to necessary medical care such as preventive and primary care. The uninsured are more likely to forego care because of cost concerns.<sup>4</sup> As a result, lack of coverage negatively affects health outcomes and results in greater costs to the uninsured individuals when their health conditions become worse.<sup>5</sup> Hospitals and governments also bear, initially, costs for uncompensated care provided to the uninsured who are unable to pay for their emergency room visits and hospital stays. However, eventually the population at large - taxpayers, providers, employees and health care consumers - absorbs the uncompensated hospital care costs.<sup>6</sup>

As gains in expanding coverage among citizens become harder to achieve because of their current very low uninsured rates, new policy considerations aimed at further reducing the overall uninsured and health care costs may need to search for ways to reduce the health coverage disparities associated with immigration status.

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<sup>4</sup> See Kaiser Health Foundation Fact Sheet: Key Facts about the Uninsured Population (<https://www.kff.org/uninsured/fact-sheet/key-facts-about-the-uninsured-population/>).

<sup>5</sup> Fizan Abdullah, et al., "Analysis of 23 Million US Hospitalizations: Uninsured Children Have Higher All-Cause In-Hospital Mortality," *Journal of Public Health* 32, no. 2 (June 2010): 236-44.

<sup>6</sup> Institute of Medicine (US) Committee on the Consequences of Uninsurance. *Hidden Costs, Values Lost: Uninsurance in America*. Washington (DC): National Academies Press (US); 2003. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK221662/> doi: 10.17226/10719

## Appendix

Table A1. Percent Uninsured in Population Groups by Immigration Status: Washington, Adults Age 18-64, 2010-17

Immigration Status	2010	2011	2012	2013	2014	2015	2016	2017
US-born Citizen	16.8 (16.1-17.5)	16.4 (15.7-17.1)	16.5 (15.8-17.2)	16.8 (16.1-17.5)	9.1 (8.5-9.6)	6.0 (5.6-6.5)	5.6 (5.1-6.0)	5.7 (5.2-6.1)
Naturalized Citizen	20.1 (17.4-22.7)	21.4 (18.7-24.1)	19.9 (17.4-22.5)	20 (17.4-22.5)	9.8 (7.9-11.7)	6.0 (4.5-7.4)	6.4 (4.9-8.0)	5.7 (4.4-7.1)
Legal Immigrant	28.0 (24.0-32.0)	30.1 (26.0-34.1)	29.5 (25.4-33.6)	28.9 (24.8-33)	16.1 (12.9-19.3)	13.9 (11.0-16.7)	11.6 (9.0-14.1)	12.9 (10.2-15.6)
Undocumented Immigrant	58.4 (54.6-62.3)	58.4 (54.7-62.1)	57.5 (53.7-61.3)	56.2 (52.6-59.8)	46.7 (42.9-50.5)	41.7 (37.9-45.5)	40.5 (36.7-44.3)	40.7 (37.0-44.4)

Table A2. Percent of State Total Uninsured by Immigration Status: Washington, Adults Age 18-64, 2010-17

Immigration Status	2010	2011	2012	2013	2014	2015	2016	2017
US-born Citizen	71.6 (69.8-73.4)	69.6 (67.7-71.4)	70.7 (68.9-72.5)	70.2 (68.4-72)	66.3 (63.9-68.8)	60.7 (57.7-63.6)	59.4 (56.4-62.5)	59.2 (56.1-62.2)
Naturalized Citizen	7.2 (6.2-8.3)	7.8 (6.8-8.9)	7.7 (6.6-8.8)	7.6 (6.6-8.7)	6.2 (5.0-7.5)	5.7 (4.3-7.1)	6.6 (5.1-8.2)	6.1 (4.6-7.6)
Legal Immigrant	5.7 (4.7-6.6)	6.1 (5.2-7.1)	5.8 (4.9-6.7)	5.6 (4.7-6.5)	5.8 (4.6-7.0)	7.6 (6.0-9.2)	7.2 (5.6-8.9)	7.6 (6.0-9.3)
Undocumented Immigrant	15.5 (14.0-17.0)	16.5 (15.0-18.0)	15.8 (14.3-17.2)	16.5 (15.1-18)	21.6 (19.5-23.8)	26.1 (23.4-28.7)	26.7 (23.9-29.5)	27.1 (24.4-29.8)

## Data Source and Notes

**Data source.** The original data source for this research brief is the US Census Bureau's American Community Survey (ACS) 1-year Public Use Microdata Sample files for 2010 to 2017. The Health Care Research Center at the Office of Financial Management adjusted the ACS sample weights to correct the undercount of Medicaid enrollment reported in ACS beginning in 2014.<sup>7</sup> This adjustment may have resulted in minor changes in estimates besides counts of Medicaid enrollment. Estimates reported in this brief are based on the adjusted ACS data.

**Immigration status.** This brief classifies Washington state's population into four groups according to their immigration statuses: US-born citizens, naturalized citizens, legal immigrants and undocumented immigrants. US-born citizen status and naturalized citizen status are determined by the citizenship and nativity data fields in the ACS. If a person is a citizen and was born native, that person is classified as US-born citizen. A citizen reported to be a foreign-born is classified as a naturalized citizen. The remainder of the population are non-citizens. The ACS does not have direct data fields that can be used to classify a non-citizen as either legal immigrant or undocumented immigrant. To help make that distinction, an algorithm published in Labor Economics by George Jo. Borjas was used in the analysis for this brief.<sup>8</sup> The Borjas algorithm uses existing information in federal surveys such as the Current Population Survey and ACS to approximate an immigrant's legal status. Such information includes arrival in US before 1980, participation in public assistant programs, employment in government positions, veteran or person currently in Armed Forces, etc. Surveys may have sampling and response errors that may result in under-report of non-citizens, probably more so of undocumented immigrants. Estimates of the non-citizen populations in this brief may contain those errors. In addition, there may be an over-report of naturalized citizens in this brief as persons born outside the US to parents who are US citizens are classified as naturalized citizens in the brief's analysis.

<sup>7</sup> For a description of the rationale and methodology for the adjustment, see [https://ofm.wa.gov/sites/default/files/public/legacy/healthcare/healthcoverage/pdf/undercount\\_medicaid.pdf](https://ofm.wa.gov/sites/default/files/public/legacy/healthcare/healthcoverage/pdf/undercount_medicaid.pdf).

<sup>8</sup> Borjas, GJ. *The Labor supply of undocumented immigrants*. Labor Economics 46(2017):1-13.