

Washington's non-citizen immigrant population continued to experience disparities in health coverage

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Introduction

Washington's health coverage has expanded since the state implemented the Affordable Care Act's major access components in 2014. Latest data show that Washington's uninsured rate in 2021 was at a historical low.¹ However, our previous analyses show disparities that existed in health coverage persisted after the 2014 coverage expansion.

Among the population groups with still high uninsured rates were the non-U.S. citizen immigrant groups, particularly the undocumented immigrant group.²

In this research brief, we present results from our analysis of the American Community Survey (ACS) from 2010 to 2021 (with the exception of 2020). This brief shows the differences in uninsured rates among Washington's adult population groups age 18-64 defined by immigration status:

1. U.S.-born citizens
2. Naturalized citizens

3. Legal immigrants
4. Undocumented immigrants.

Data for 2020 was not available because the COVID-19 pandemic disrupted the ACS data collection. This, in turn, affected the 2020 ACS data quality.³

We focus on changes from 2017 to 2021 because our previous research extensively covered health coverage changes of these groups from 2010 to 2017.

Growth in adult immigrant populations, age 18-64, from 2010 to 2021

All population groups age 18-64 as defined by immigration status increased from 2010 to 2021. The U.S.-born citizen group grew from 3.6 million in 2010 to 3.9 million in 2021, an increase of 7.5%. The naturalized citizen group increased from 302,000 to 427,000. This group's increase of 38.8% was the largest of all groups. The legal immigrant group grew

¹ <https://ofm.wa.gov/sites/default/files/public/dataresearch/researchbriefs/brief108.pdf>

² <https://ofm.wa.gov/sites/default/files/public/dataresearch/researchbriefs/brief091.pdf>

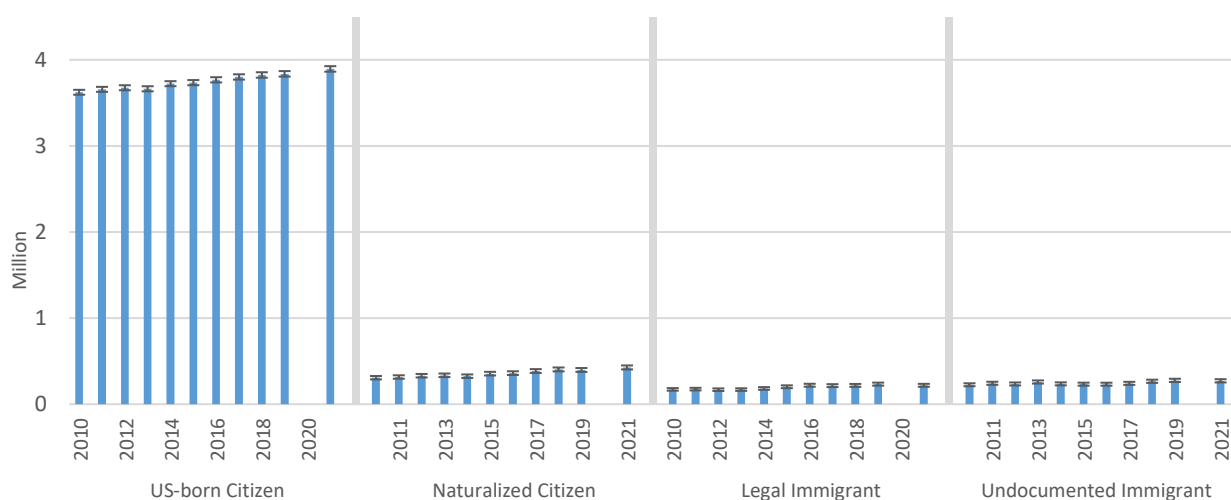
³ For more information on the 2020 ACS data quality issues and OFM Health Care Research Center's decision not to use the 2020 ACS data for Washington, see <https://ofm.wa.gov/sites/default/files/public/dataresearch/researchbriefs/brief106.pdf>.

from 172,000 to 220,000, or an increase of 27.7%. It was the second largest increase of the four groups. Finally, the undocumented immigrant group had the third largest increase, at 20.3%, growing from 226,000 to 272,000. (Figure 1)

The shares of the immigrant population groups as percentages of the state’s total population increased overall as well during this period. The increases in the shares of

these groups suggest that their growth was greater than the growth of the total population, age 18-64. The naturalized citizen group’s share increased from 7.1% to 8.9%, the legal immigrant group’s share from 4% to 4.6%, and the undocumented immigrant group’s share from 5.2% to 5.6%. Meanwhile, despite the increases in numbers, the U.S.-born citizen group’s share decreased from 83.7% to 80.9%. (see Table A1 in Appendix)

Figure 1. Adult population (in millions) age 18-64 by immigration status: 2010 to 2021, Washington



Health coverage changes in population age 18-64 by immigration status, 2010 to 2021

Health coverage of all four population groups went through significant improvement from 2010 to 2021. This is evident in the large decreases in these groups’ uninsured rates. Our previous research shows that the dramatic declines in these groups’ uninsured rates started in 2014 when the state elected to expand Medicaid and to offer Qualified Health Plan through the state’s health benefit exchange under the Affordable Care Act

(ACA). The uninsured rates appeared to stabilize and were at the lowest level by 2017 for all population groups. From 2017 to 2021, the uninsured rates of both the U.S.-born citizen group and the naturalized citizen group first showed a slight yet significant increase and then returned to about the 2017 level by 2021. In the legal immigrant group, the uninsured rate also appeared to have gone through the phases of first an increase and then a decrease. However, the changes in this group’s uninsured rate since 2017 were not statistically significant. The undocumented immigrant group was the only group that had

a significant decrease in the uninsured rate since 2017.

The uninsured rates of the four groups varied before 2014. The U.S.-born citizen group had the lowest rate at about 17%. The naturalized citizen group had a slightly higher rate, at about 20%. The legal immigrant group's rate was significantly higher than the U.S.-born citizen group's rate, at about 30%. Finally, the undocumented immigrant group had the highest uninsured rate, at about 57%, which is two to three times higher than the U.S.-born citizen group's rate.

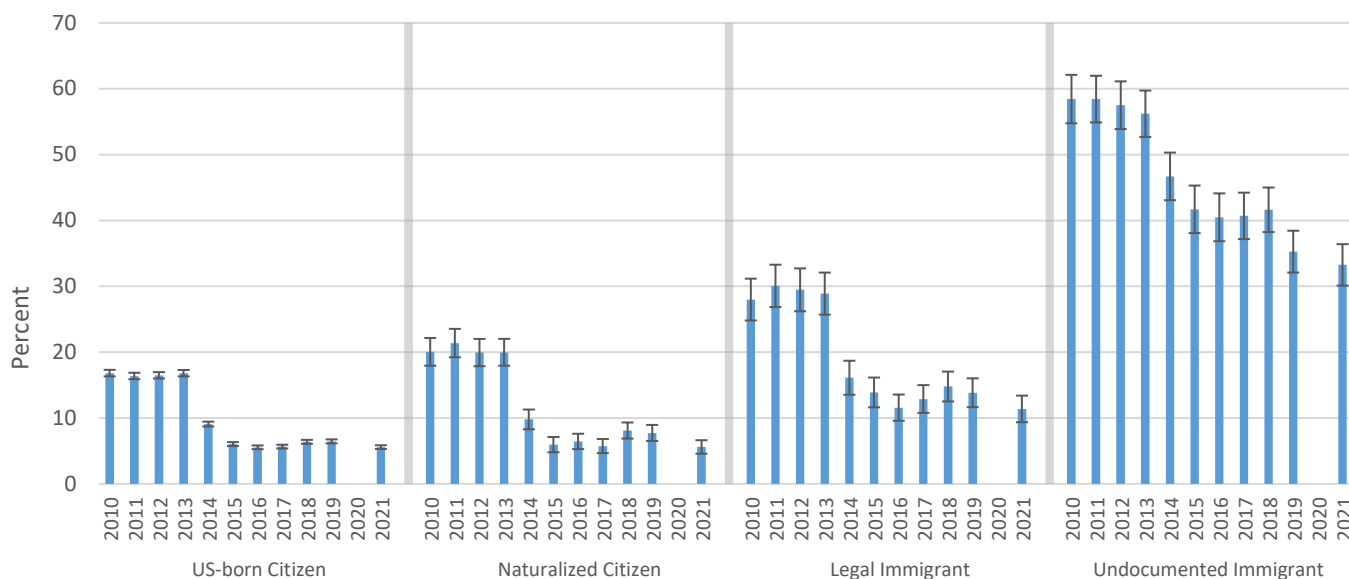
From 2013 to 2017, the U.S.-born citizen group's uninsured rate declined by approximately two-thirds, to 5.7%. The rate

for the naturalized citizen group decreased by more than 70%, to 5.7% as well. The legal immigrant's uninsured rate dropped by nearly 60%, to 12.9%. The undocumented immigrant group's rate declined by approximately 30%, to 40.7%.

As mentioned earlier, from 2017 to 2021, the uninsured rates remained at the 2017 levels for the U.S.-born citizen group, the naturalized citizen group, and the legal immigrant group. The undocumented immigrant group had a further 12% decrease, to 33.3%, with a total reduction of 42% from 2013 to 2021.

However, this group's rate of 33.3% in 2021 remained the highest of all groups, almost five times higher than the rate of 5.6% of the U.S.-born citizen group. (Figure 2)

Figure 2. Percentage uninsured in population age 18-64 by immigration status: 2010-21, Washington



The composition of the state's total uninsured age 18-64 by immigration status changed over time. In 2013, before the state implemented major ACA components, 70.2% of the state's uninsured population were U.S.-born citizens. This was followed by 16.5% undocumented

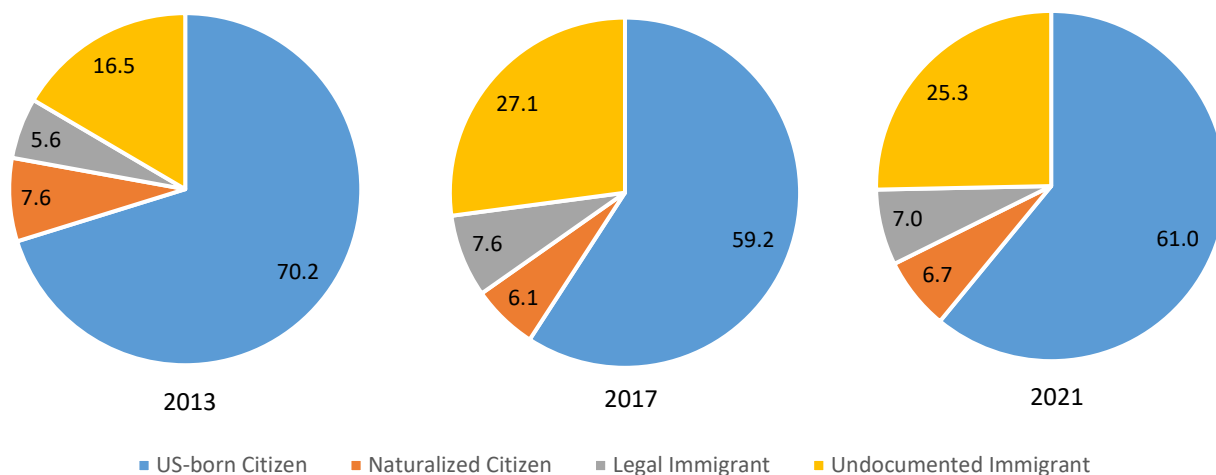
immigrants, 7.6% naturalized citizens, and 5.6% legal immigrants. In 2017, three years after the state implemented major ACA components, the composition of the uninsured had some large changes. The U.S.-born citizen group still had the largest share,

but its share decreased by more than 10 percentage points to 59.2%. The naturalized citizen group’s share also decreased, to 6.1%. The shares of the two non-citizen groups increased. The share of the undocumented immigrants increased by more than 10 percentage points, to 27.1%. The share of legal immigrants increased by two percentage points, to 7.6%.

From 2017 to 2021, the breakdown of the state’s uninsured population by immigration status had the opposite trend, with the shares of the two citizen groups increasing and the

shares of the two non-citizens groups decreasing. However, this time, the changes were small in scale, compared with the changes from 2013 to 2017. The U.S.-born citizen group’s share increased by 1.8 percentage points, to 61% and the naturalized citizen group’s increased by about half a percentage point to 6.7%. Meanwhile, the undocumented immigrant group’s share decreased by 1.8 percentage point to 25.3% and the legal immigrant group’s share decreased by about half a percentage point to 7%. (Figure 3)

Figure 3. Percentage of the uninsured population age 18-64 by immigration status: 2013, 2017 and 2021, Washington



Health coverage disparities between undocumented immigrant group and other groups remained large despite signs of easing since 2017

Before the state implemented ACA’s coverage expansion programs, the uninsured rate of the undocumented immigrants was about 3.5 times as high as the uninsured rate of the U.S.-born citizens. Naturalized citizens had a similar

rate to the U.S.-born citizens. The legal immigrant group had a rate that was about 80% higher than the rate of the U.S.-born citizens.

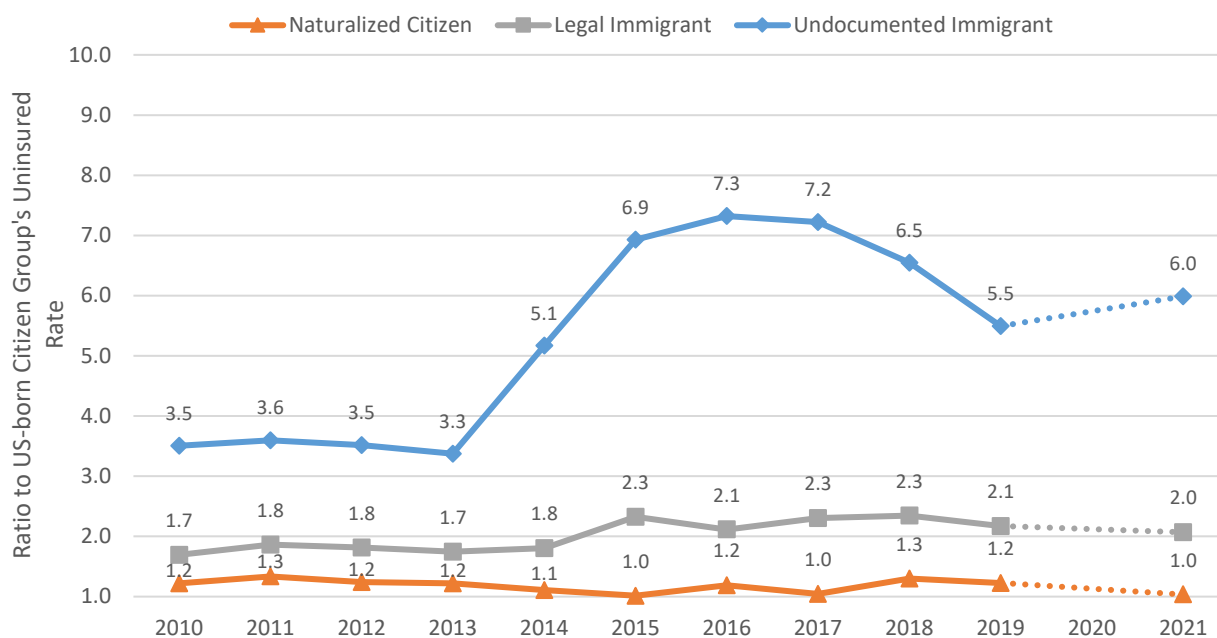
The ACA’s main coverage expansion component (Medicaid) is only accessible to U.S. citizens. Because of this restriction, the uninsured rates of legal immigrants and undocumented immigrants decreased at a much slower pace than the uninsured rates of

U.S.-born citizens and naturalized citizens in the first few years of ACA’s major coverage expansion (2014 to 2017). This difference in the pace of uninsured rate declines further increased disparities between the citizen groups and non-citizen groups, particularly for the undocumented group. By 2017, the undocumented immigrant group’s uninsured rate was more than seven times as high as the U.S.-born citizen group’s rate.

From 2017 to 2021, while the uninsured rates of the other population groups remained relatively unchanged, the uninsured rate of the undocumented immigrant group continued to decline. By 2021, the gap

between the undocumented immigrant group’s uninsured and the U.S.-born citizen group’s rate shrank a little. Nevertheless, the former group’s rate was still six times as high as the latter group’s rate. This further decline of the uninsured rate of the undocumented immigrant group was most likely caused by the changes in the socio-economic characteristics of the undocumented immigrants. Our separate analysis shows that compared with earlier years in the period of 2010-21, undocumented immigrants in the later years were more likely to have a college education, employment, and higher family income.⁴ (Figure 4)

Figure 4. Ratios of non-U.S.-born groups' uninsured rates over U.S.-born citizen group's uninsured rate, 2010-19 and 2021: Washington



(U.S.-born citizen group = 1)

⁴ Yen, Wei. *Washington state’s immigrant population: 2010-21*. Washington State Office of Financial Management Health Care Research Center, Research Brief #110. May 2023. (<https://ofm.wa.gov/sites/default/files/public/dataresearch/researchbriefs/brief110.pdf>).

Being an undocumented immigrant continues to be the strongest predictor of being uninsured

We conducted a statistical analysis to see whether being an undocumented immigrant is associated with being uninsured. The logistic regression model we used tests the association between immigration status and being uninsured while holding other factors (or predictors) constant. The other factors we included in this analysis are age, sex, race/ethnicity, education, employment status and income level. The question this analysis attempts to answer is whether, everything else being equal, the odds of being uninsured would be affected by immigration status. We previously ran this analysis with the 2017 data. For this report, we ran the analysis again with the 2021 data. We present results from the statistical models for both years in Table 1 below.

These results show that the relationships between the predictors and being uninsured have not changed significantly since 2017. Both years' models show that **an undocumented immigrant has a much higher probability of being uninsured than individuals with other immigration statuses**. In 2017, the odds of being uninsured were eleven times as high and, in 2021, the odds were nine times as high when the undocumented immigrant group was compared with the U.S.-born citizen group. There was some improvement from 2017 to 2021 in the undocumented immigrant group's odds in the form of a decline. However, the overlapping confidence

intervals between the two years' odds ratios for the undocumented immigrant group suggest that the decline is not statistically significant.

The other two immigrant groups also had greater odds of being uninsured when compared with the U.S.-born citizen group. However, their odds were much smaller than those of the undocumented immigrant group. The naturalized citizen group was about 20% more likely to be uninsured in both years when compared with the U.S.-born citizen group. The legal immigrant group was about two times as likely in 2017 and about 70% more likely in 2021 to be uninsured when compared with the U.S.-born citizen group.

For the other factors we considered in our models, age does not appear to be associated with being uninsured among adults 18-64. Males were about 30% more likely than females to be uninsured. When compared with the non-Hispanic white population, those of Hispanic origin had odds that were about twice as high, those with the race of non-Hispanic Asians and Pacific Islanders (APIs) had odds that were smaller by 50%, and those with the non-Hispanic other race had odds that were about 20%-30% higher. The odds of being uninsured were more than twice as high in the following comparisons: when the unemployed were compared with the employed, when those without a 4-year college education were compared with those who obtained college education, and when those with income below 400% of the federal poverty level were compared with those with income at or above 400% FPL.

Table 1. Probability of being uninsured by immigration status, controlling for age, sex, race/ethnicity, education, employment and income.

| Demographic and Socio-economic Predictors | 2017 Model | | 2021 Model | |
|------------------------------------------------------------------------------|------------|-----------------------|------------|-----------------------|
| | Odds Ratio | 95% Confidence Limits | Odds Ratio | 95% Confidence Limits |
| <i>Immigrant Status (compared to US-born citizens)</i> | | | | |
| Naturalized citizens | 1.228 | (1.073-1.406) | 1.235 | (1.018-1.499) |
| Legal immigrants | 1.988 | (1.749-2.26) | 1.661 | (1.325-2.081) |
| Undocumented immigrants | 11.148 | (8.752-14.199) | 9.025 | (7.642-10.659) |
| <i>Age</i> | | | | |
| Each additional year in age | 1.000 | (0.997-1.004) | 0.992 | (0.988-0.996) |
| <i>Sex (compared to female)</i> | | | | |
| Male | 1.32 | (1.255-1.389) | 1.313 | (1.188-1.452) |
| <i>Race/Ethnicity (compared to non-Hispanic white)</i> | | | | |
| Hispanic | 1.971 | (1.744-2.227) | 2.112 | (1.848-2.414) |
| Non-Hispanic API | 0.438 | (0.377-0.51) | 0.600 | (0.482-0.747) |
| Non-Hispanic other race | 1.223 | (1.012-1.479) | 1.304 | (1.116-1.524) |
| <i>Education (compared to education of 4-year college degree or higher)</i> | | | | |
| No 4-year college degree | 2.404 | (2.22-2.603) | 2.591 | (2.243-2.993) |
| <i>Employment (compared to employed)</i> | | | | |
| Unemployed | 2.225 | (2.009-2.465) | 2.252 | (1.863-2.721) |
| Not in labor force | 0.965 | (0.904-1.031) | 1.122 | (0.997-1.263) |
| <i>Income (compared to income at or above 400% of federal poverty level)</i> | | | | |
| Middle-income (200-399% FPL) | 2.384 | (2.201-2.583) | 2.239 | (1.969-2.545) |
| Low-income (<200% FPL) | 3.021 | (2.714-3.363) | 2.362 | (2.056-2.713) |

Summary and implications

Washington's adult immigrant population age 18-64 increased from 2010 to 2021, not only in numbers (from 700,000 to over 900,000) as did the non-immigrant population, but also in their share of the total 18-64 population (from

16.3% to 19.1%). Our analysis shows that there have been consistent disparities among these groups in health coverage. Citizens are associated with lower uninsured rates. That disparity was exacerbated when the state implemented ACA's major coverage expansion programs in 2014, despite falling uninsured

rates in all groups. The cause for this increased disparity is that the ACA's main coverage expansion program, Medicaid expansion, is available to citizens only. The disparity in coverage is most noticeable between the undocumented immigrant group and other groups. **In fact, being an undocumented immigrant is the most salient predictor of being uninsured in our statistical models for 2017 and 2021.**

In the last few years of our data, the disparity between the undocumented immigrant group and other groups narrowed a little, likely due to changes in the socio-economic composition of the undocumented immigrants. Compared to earlier years in our study period, the undocumented immigrants in the last few years were more likely to be employed, to have a college degree, and less likely to have a lower income. These changes mean that the recent undocumented immigrants were more likely to obtain health coverage from employers or more likely to afford purchasing health insurance on their own.

However, despite the narrowed disparities between the undocumented immigrant group

and other groups in the last few years, undocumented immigrants still had a very high uninsured rate, 33.3%, in 2021. When compared with the U.S.-born citizens, the undocumented immigrants' uninsured rate was six times as high and their probability of being uninsured was nine times as high. While they accounted for 5.6% of the total adult population 18-64, they accounted for 25.3% of all uninsured in this age range.

If the state wants to further reduce the coverage disparity between undocumented immigrants and other populations, and further improve the state's overall health coverage, our state policies may need to look into mechanisms to remove immigration status as a barrier in accessing health coverage. Recent state efforts appear to be moving in that direction. Senate Bill (SB) 5399 (2021) established a permanent Universal Health Care Commission to explore universal coverage for all Washingtonians.⁵ The commission has developed a phased strategy for a universal health care system.⁶

⁵ <https://app.leg.wa.gov/billsummary?BillNumber=5399&Year=2021&Initiative=false>

⁶ <https://www.hca.wa.gov/assets/program/commission-baseline-report-20221101.pdf>

Appendix

Data source and notes

Data source. The original data source for this research brief is the U.S. Census Bureau’s American Community Survey (ACS) 1-year Public Use Microdata Sample files for 2010 through 2019 and 2021. The Health Care Research Center at the Office of Financial Management, Forecasting and Research Division adjusted the ACS sample weights to correct for the undercount of Medicaid enrollment in ACS beginning in 2014.⁷ This adjustment may have resulted in minor changes in estimates besides counts of Medicaid enrollment. Estimates reported in this brief for 2014 and later are based on the adjusted ACS data.

Immigration status. This brief classifies Washington state’s population into four groups according to their immigration status: U.S.-born citizens, naturalized citizens, legal immigrants and undocumented immigrants. U.S.-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 in the U.S., that person is classified as a U.S.-born citizen. A citizen reported to be a foreign-born is classified as a naturalized citizen.

The remainder of the population are noncitizens. The ACS does not have direct data fields that can be used to classify a noncitizen as either a legal or undocumented immigrant. To help make that distinction, we used the algorithm published in *Labor Economics* by George Jo. Borjas⁸ in the analysis for this brief. 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 U.S. before 1980, participation in public assistance programs, employment in government positions, veteran status or current service in the armed forces, etc. Surveys may have sampling and response errors that result in under-report of noncitizens, probably more so of undocumented immigrants. Estimates of the noncitizen 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 U.S. to parents who are U.S. citizens are classified as naturalized citizens in our analysis.

⁷ 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.

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

Data tables

Table A1. Population size (in thousands and percents) and percent change from 2010 to 2021 by immigration status: Washington, adults age 18-64

| Immigrant Status | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2010-21 change (%) |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|--------------------|
| State Total Population | 4,329 | 4,391 | 4,411 | 4,428 | 4,468 | 4,526 | 4,582 | 4,645 | 4,713 | 4,745 | | 4,813 | 11.2% |
| US-born Citizen | 3,623 | 3,657 | 3,676 | 3,664 | 3,723 | 3,735 | 3,768 | 3,801 | 3,824 | 3,838 | | 3,895 | 7.5% |
| % | 83.7% | 83.3% | 83.3% | 82.8% | 83% | 82.5% | 82.2% | 81.8% | 81.1% | 80.9% | | 80.9% | |
| Immigrant | 705 | 734 | 735 | 764 | 745 | 790 | 813 | 843 | 889 | 908 | | 918 | 30.2% |
| % | 16.3% | 16.7% | 16.7% | 17.2% | 16.7% | 17.5% | 17.8% | 18.2% | 18.9% | 19.1% | | 19.1% | |
| Naturalized Citizen | 308 | 316 | 331 | 336 | 325 | 355 | 361 | 385 | 404 | 398 | | 427 | 38.8% |
| % | 7.1% | 7.2% | 7.5% | 7.6% | 7.3% | 7.8% | 7.9% | 8.3% | 8.6% | 8.4% | | 8.9% | |
| Legal Immigrant | 172 | 175 | 169 | 170 | 183 | 203 | 220 | 216 | 218 | 233 | | 220 | 27.7% |
| % | 4.0% | 4.0% | 3.8% | 3.8% | 4.1% | 4.5% | 4.8% | 4.6% | 4.6% | 4.9% | | 4.6% | |
| Undocumented Immigrant | 226 | 243 | 235 | 258 | 236 | 233 | 232 | 242 | 266 | 277 | | 272 | 20.3% |
| % | 5.2% | 5.5% | 5.3% | 5.8% | 5.3% | 5.1% | 5.1% | 5.2% | 5.6% | 5.8% | | 5.6% | |

Table A2. Percent uninsured in population groups by immigration status: Washington, adults age 18-64, 2010-21 (Numbers in parentheses denote range of the estimate at 95% confidence level)

| Immigrant Status | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|------|---------------------|
| 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 (5.6-6.5) | 5.6 (5.1-6) | 5.7 (5.2-6.1) | 6.4 (5.9-6.8) | 6.5 (6-6.9) | | 5.6 (5.2-6) |
| 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 (4.5-7.4) | 6.4 (4.9-8) | 5.7 (4.4-7.1) | 8.1 (6.5-9.7) | 7.7 (6.2-9.3) | | 5.6 (4.3-6.9) |
| Legal Immigrant | 28 (24-32) | 30.1 (26-34.1) | 29.5 (25.4-33.6) | 28.9 (24.8-33) | 16.1 (12.9-19.3) | 13.9 (11-16.7) | 11.6 (9-14.1) | 12.9 (10.2-15.6) | 14.8 (12-17.6) | 13.8 (11.2-16.5) | | 11.4 (8.9-13.9) |
| 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 (37-44.4) | 41.6 (38.1-45.2) | 35.3 (31.9-38.6) | | 33.3 (29.9-36.6) |

Table A3. Percent of state total uninsured by immigration status: Washington, adults age 18-64, 2010-21
 (Numbers in parentheses denote range of the estimate at 95% confidence level)

| Immigrant Status | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|------------------------|---------------------|---------------------|---------------------|-------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|------|-------------------|
| 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) | 58.1 (55.3-61) | 60.7 (57.8-63.5) | | 61 (57.9-64) |
| 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 (5-7.5) | 5.7 (4.3-7.1) | 6.6 (5.1-8.2) | 6.1 (4.6-7.6) | 7.8 (6.3-9.3) | 7.5 (6-9.1) | | 6.7 (5.2-8.3) |
| 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) | 7.6 (6-9.2) | 7.2 (5.6-8.9) | 7.6 (6-9.3) | 7.7 (6.2-9.2) | 7.9 (6.3-9.5) | | 7 (5.4-8.6) |
| Undocumented Immigrant | 15.5 (14-17) | 16.5 (15-18) | 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) | 26.4 (23.9-28.9) | 23.9 (21.4-26.4) | | 25.3 (22.6-28) |