ASPE ASSISTANT SECRETARY FOR PLANNING AND EVALUATION | OFFICE OF HEALTH POLICY

DATA POINT

October 25, 2022

HP-2022-25

HealthCare.gov Enrollment by Race and Ethnicity, 2015-2022

Using imputation techniques to analyze enrollees who do not report race and ethnicity data, we estimate that 1.3 million Black people and 2.6 million Latino people enrolled in health coverage through HealthCare.gov during the 2022 Open Enrollment Period, 49% and 53% increases from 2020, respectively.

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KEY POINTS

- In 2021 and 2022, the Centers for Medicare & Medicaid Services (CMS) substantially increased funding for Marketplace outreach and education, and the American Rescue Plan (ARP) offered enhanced and expanded premium tax credits. These policies were designed to expand coverage, including among populations with historically higher uninsured rates such as Black and Latino consumers.
- However, over 30 percent of Marketplace enrollees have missing race and ethnicity information in HealthCare.gov administrative enrollment data, which is a barrier to measuring progress in improving equitable coverage rates. To address this data limitation, we analyzed race and ethnicity for HealthCare.gov enrollment data from the 2015 to 2022 Open Enrollment Periods using validated imputation techniques for missing data.
- After imputation, comparing 2020 to 2022, the number of Latino enrollees increased from 1.7 million to 2.6 million (a 53 percent increase); Black enrollees increased from 0.9 million to 1.3 million (a 49 percent increase); American Indian and Alaska Native (AI/AN) enrollees increased from 52,000 to 68,000 (a 32 percent increase); Asian-American, Native Hawaiian, and Pacific Islander (AANHPI) enrollees increased from 0.8 million in 2020 to just under 0.9 million in 2022 (a 6 percent increase); and White enrollees increased from 4.7 to 5.2 million (an 11 percent increase).
- These results suggest that outreach efforts and increased affordability of coverage under the ARP substantially increased Marketplace enrollment among Black, Latino, and AI/AN beneficiaries from 2020-2022; enrollment growth among White and AANHPI beneficiaries was more modest.
- Ongoing outreach and the extension of Marketplace subsidies under the Inflation Reduction Act of 2022 are key tools in continuing to improve coverage rates across all populations.

OVERVIEW

National survey data shows that the U.S. uninsured rate reached an all-time low of 8.0 percent in early 2022.[1] However, uninsured rates continue to differ by race, with 25.7 percent of Latino adults ages 18-64 uninsured in early 2022, compared to 14.8 percent of Black adults and 6.9 percent of White adults.[2*]

Improving racial health equity and increasing access to affordable health coverage are priorities of the Biden-Harris Administration.[3,4] The Executive Order on *Advancing Racial Equity and Support for Underserved Communities Through the Federal Government* prompted the Department of Health and Human Services to initiate an Equity Action Plan, which emphasizes advancing equity as a central component of all agency decision-making.[5] In 2021, an extended Special Enrollment Period (SEP), the expansion of Marketplace outreach and Navigator funding, and enhanced and expanded premium tax credits under the American Rescue Plan (ARP) led to increases in Marketplace enrollment across all racial and ethnic populations. For example, among enrollees in HealthCare.gov states that made new SEP plan selections and self-reported their race or ethnicity, the share of Black enrollees increased from 9 percent in 2019 to 15 percent in 2021, and the share of Latino enrollees increased from 16 percent in 2019 to 19 percent in 2021.[6]

Accurate information on ACA Marketplace enrollees' race and ethnicity is important to monitor and evaluate progress in addressing disparities in health coverage. Self-reported race and ethnicity, however, is often missing in Marketplace administrative data since it is optional to report. Brokers, agents, or other third parties who assist with Marketplace enrollment may not ask for self-reported race and ethnicity, and some enrollees may choose not to report race and ethnicity when applying for coverage. Imputation is one strategy that uses existing self-reported race and ethnicity data to predict the probability of racial and ethnic identity. While self-reported data on race and ethnicity is preferred, imputing values for missing race and ethnicity data allows for a more comprehensive view of enrollment than analysis of incomplete data, though imputation methods do have limitations and are not a replacement for more complete data collection[7] through steps such as educating enrollment assisters about the significance of collecting race and ethnicity data and encouraging insurers and providers to collect race and ethnicity data during routine contacts.[8]

This Data Point presents trends in Marketplace enrollment by race and ethnicity, from 2015-2022, incorporating a validated imputation method for missing enrollment information on race and ethnicity. We analyze changes in coverage via HealthCare.gov across racial and ethnic groups over time and assess the potential effects of the Biden-Harris Administration's policies designed to improve equitable coverage rates.

METHODS

This analysis uses HealthCare.gov data[†] in plan selections made during open enrollment periods from 2015 to 2022, obtained from CMS's Center for Consumer Information and Insurance Oversight. The modified Bayesian

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[*] Unless otherwise indicated, race and ethnicity categories in this report are mutually exclusive, meaning "Black" refers to Non-Latino Black individuals, "White" refers to Non-Latino White individuals, and Latino individuals of all races are grouped together as "Latino."

[†] HealthCare.gov states examined include both federally-facilitated marketplaces and state-based marketplaces that use the HealthCare.gov platform, including: Alabama, Alaska, Arizona, Arkansas, Delaware, Florida, Georgia, Hawaii (added in 2016), Illinois, Indiana, Iowa, Kansas, Kentucky (added in 2017), Louisiana, Maine, Michigan, Mississippi, Missouri, Montana, Nebraska, Nevada (removed in 2020), New Hampshire, New Jersey (removed in 2021), New Mexico, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania (removed in 2021), South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, West Virginia, Wisconsin, and Wyoming. Data was available for some plan selections in certain states that were not HealthCare.gov states at the time, including: California (2015-2017), Colorado (2015-2021), Connecticut (2015-2016), DC (2016), Hawaii (2015-2016), Idaho (2015-2021), Kentucky (2015-2016), Maryland (2015-2021), Massachusetts (2015-2021), Minnesota (2015-2021), New York (2015-2018, 2020), Pennsylvania (2021), Rhode Island (2015), and Washington (2015-2017).

Improved First Name Surname Geocoding (mBIFSG) method developed by RAND was used to impute values for missing race and ethnicity information.[9,10] This approach has been validated and described in more detail in previous ASPE publications and a journal article.[11,12] Self-reported and missing race and ethnicity was assessed before and after imputation, and results were used to calculate estimates of enrollment (both percentages and total enrollees) by year for each group.

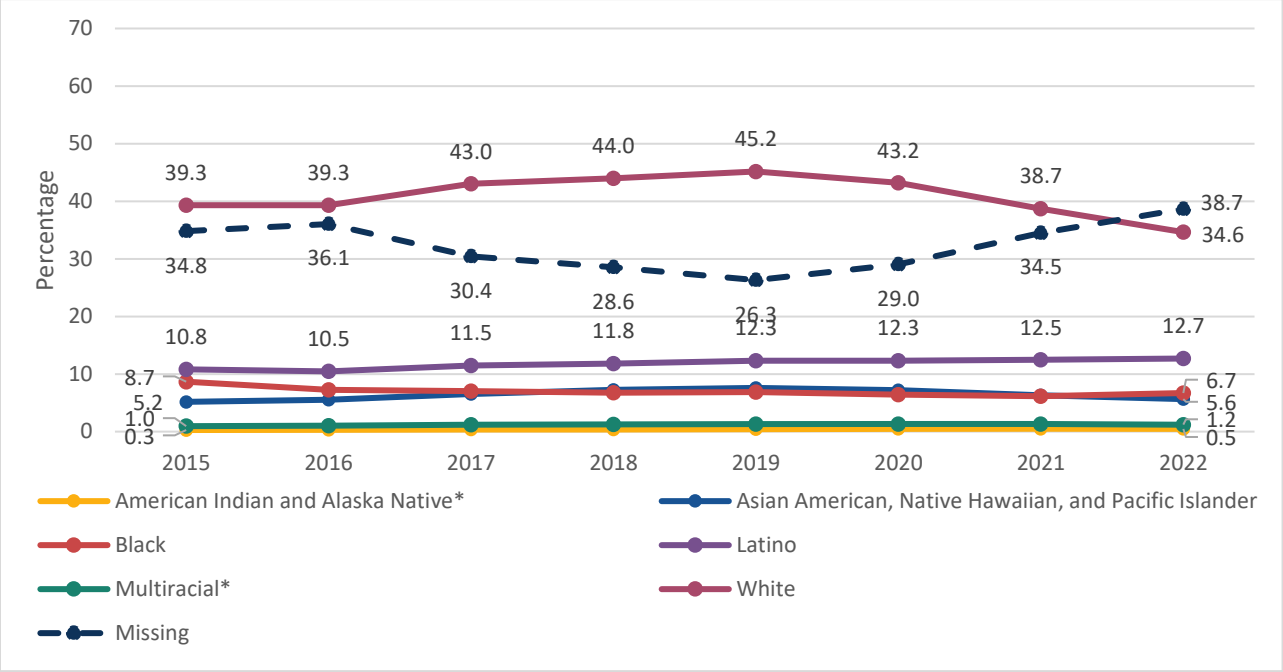
This analysis has several limitations. First, while our imputation method has high overall predictive accuracy, it is less predictive for American Indian and Alaska Native (AI/AN) or multiracial individuals. Second, our imputation method currently uses self-reported race and ethnicity data by surname and by neighborhood from the 2010 Census, which may be outdated for areas that have experienced significant demographic changes in the past decade. Third, the imputation method uses self-reported race and ethnicity by first and last name collected from mortgage applications, which may have limited generalizability due to longstanding inequitable rates of home ownership by race and ethnicity. Fourth, while our analysis is suggestive of effects of recent policy changes, given that we are simply analyzing descriptive trends over time, we cannot draw a clear cause-and-effect relationship between enrollment changes and recent policies. Finally, the analysis is limited to the federal Marketplace Healthcare.gov since detailed data from State-Based Marketplaces necessary to conduct the imputation method are not available to HHS.

RESULTS

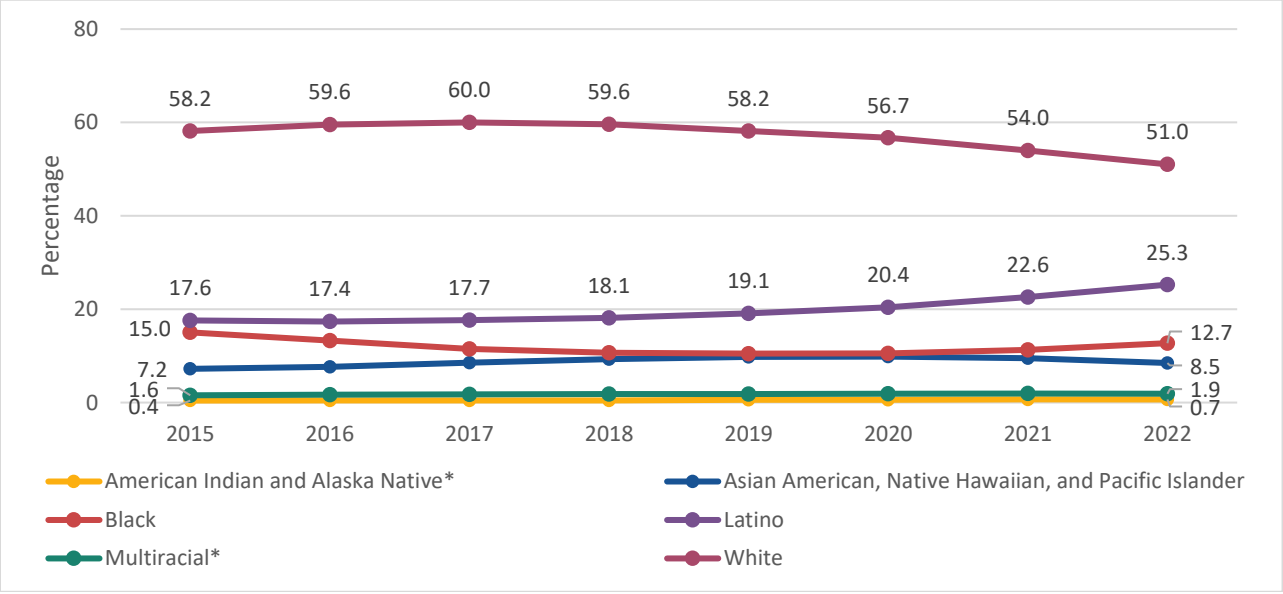
For HealthCare.gov states from 2015 to 2022, there were a total of 71.6 million plan selections during open enrollment periods; each consumer is counted only once a year, but many appear in multiple Open Enrollment Periods. Figure 1 shows that self-reported race and ethnicity were missing for 23.3 million plan selections, representing 32.5 percent of the sample. Notably, the rate of missing race and ethnicity information rose in 2021-2022. Imputation increased the percentage of enrollees in the AANHPI category by 2.4 percentage points (6.4 to 8.7 percent), in the Black category by 5.0 percentage points (7.0 to 12.0 percent), in the Latino category by 8.0 percentage points (11.8 percent to 19.8 percent), and in the White category by 16.3 percentage points (40.8 percent to 57.1 percent). See Appendix Figure 1 for further details on imputation methods.

Figure 1: HealthCare.gov Enrollees' Race and Ethnicity Before and After Imputation, 2015-2022

Panel A: Before Imputation



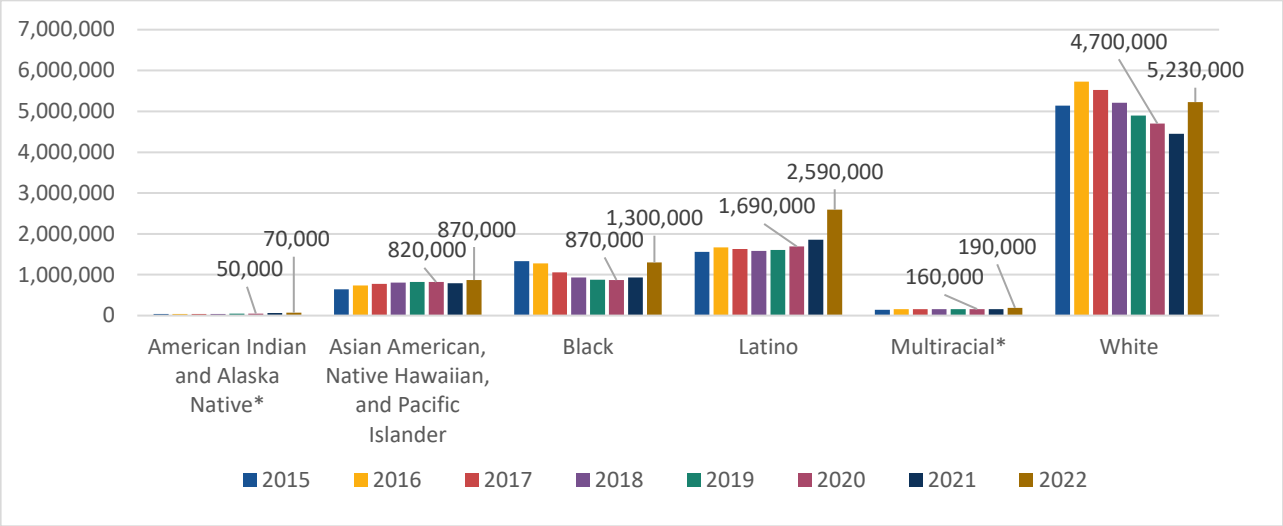
Panel B. After Imputation



Notes: Analysis by ASPE and RAND of HealthCare.gov Open Enrollment Period data, 2015-2022.
*Estimates for American Indian and Alaska Native and Multiracial categories should be interpreted with caution, as the imputation C-statistic for AI/AN was 0.62 and Multiracial was 0.68 (marginally acceptable). The remaining categories have C-statistics greater than 0.94 (excellent).

Figure 2 shows total estimated enrollment for each group by year, after imputation. All groups other than multiracial individuals experienced increases between 2020 and 2022. Comparing 2020 to 2022, the number of AI/AN enrollees increased from 52,000 to 68,000 (a 32 percent increase), AANHPI enrollees increased from 0.8 million in 2020 to slightly under 0.9 million in 2022 (a 6 percent increase), Black enrollees increased from 0.9 million to 1.3 million (a 49 percent increase), Latino enrollees increased from 1.7 million to 2.6 million (a 53 percent increase), and White enrollees increased from 4.7 to 5.2 million (an 11 percent increase).

Figure 2. Number of HealthCare.gov Marketplace Enrollees by Race and Ethnicity, 2015-2022



Notes: From analysis by ASPE and RAND of HealthCare.gov data Open Enrollment Periods, 2015-2022.
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Figure 3 shows the annual change in Marketplace OEP enrollment by race and ethnicity. While Marketplace OEP enrollment increased for all populations from 2020-2022, enrollment growth of Black and Latino populations exceeded all other groups during this time period and grew by nearly 40 percent for both groups between 2021 and 2022, building on more modest gains that occurred between 2020 and 2021.

Figure 3. Relative Change in Annual OEP Enrollment by Race and Ethnicity, 2018-2022

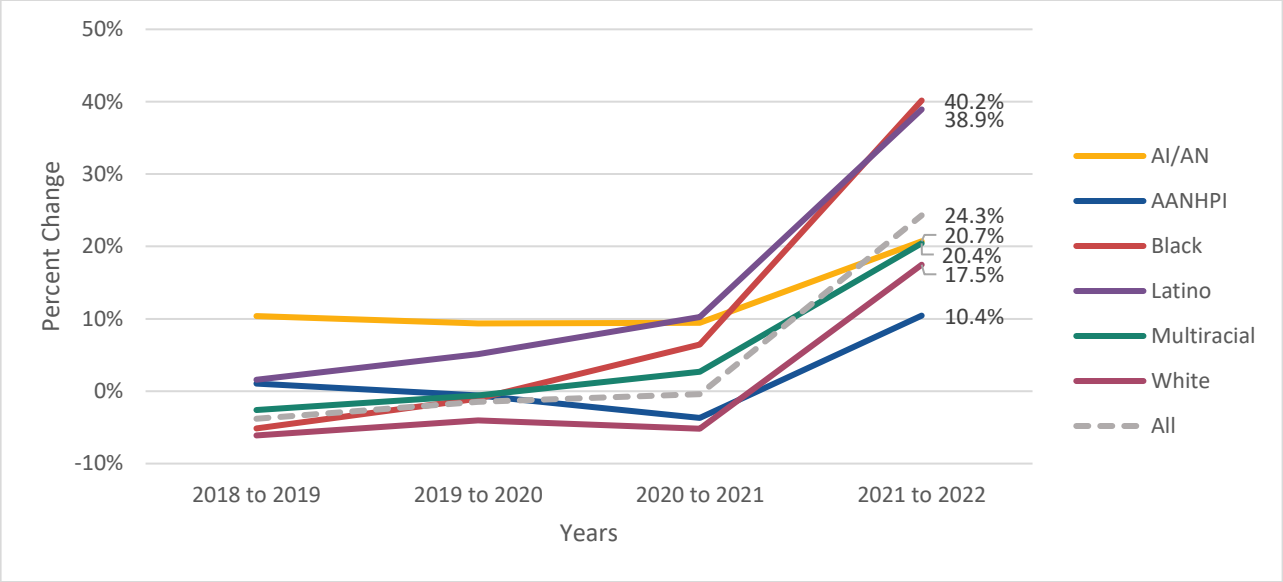
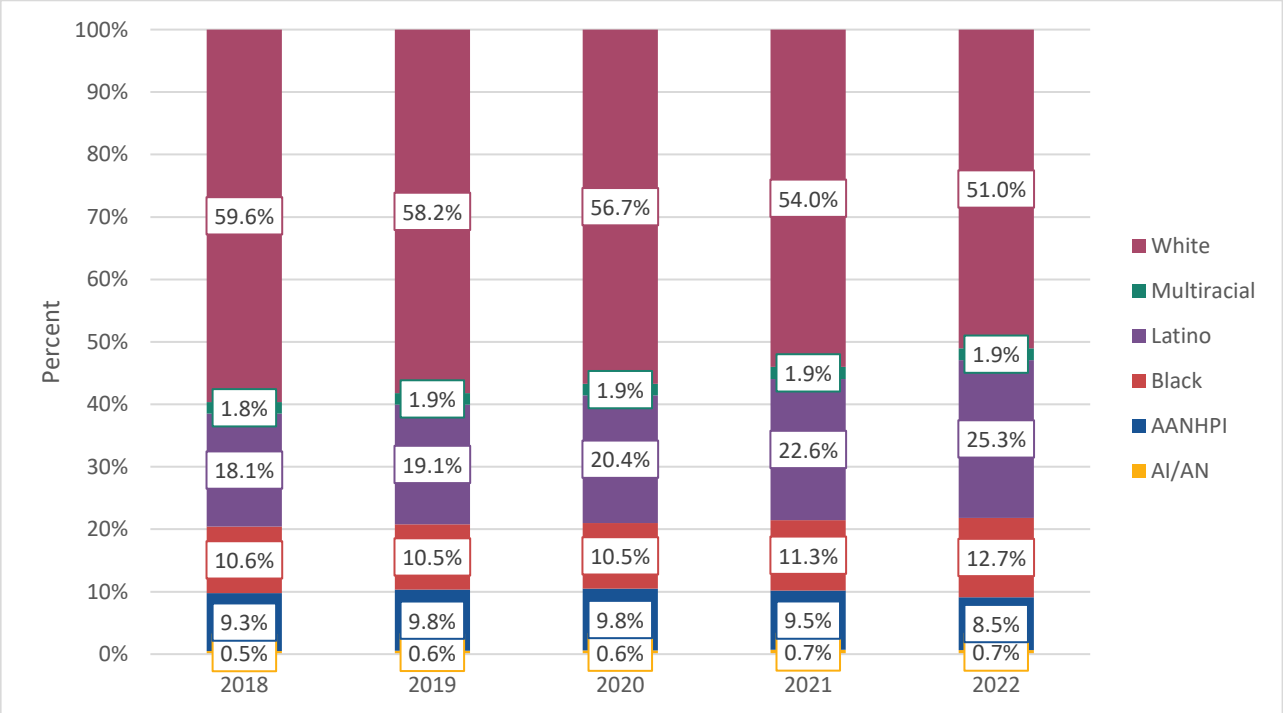


Figure 4 shows the distribution of Marketplace enrollment by race and ethnicity. Recent enrollment growth among Black and Latino populations led to a higher share of Marketplace enrollment represented by the Black population (2.2 percentage-point increase) and the Latino population (4.9 percentage-point increase between 2020 and 2022), while the share of enrollment by White and AANHPI populations decreased 5.7 and 1.3 percentage points, respectively (see Appendix Figure 2 for distribution of race and ethnicity among enrollees before and after missing replacement and imputation from 2015 to 2022).

Figure 4. Distribution of Marketplace OEP Enrollment by Race and Ethnicity, 2018-2022



CONCLUSION

The Biden Administration has made a concerted effort to improve coverage rates in the U.S. including among communities of color, with steps including an extended SEP in 2021, expanded Marketplace outreach and Navigator funding, and enhanced Marketplace subsidies under the ARP. By lowering the percentage of income that consumers are expected to contribute toward premiums for those between 100 and 400 percent of the federal poverty level (FPL) and extending premium tax credits to households above 400 percent FPL, the ARP has improved affordability for millions of Marketplace consumers.

Our analysis of 2015-2022 Open Enrollment Period data suggests that these policies were associated with increased Marketplace coverage across all racial and ethnic groups, with the largest gains among Latino and Black enrollees. The passage of the Inflation Reduction Act extends the ARP Marketplace subsidies through 2025, which can help maintain these coverage gains and keep an estimated 3 million U.S. residents from losing their health insurance in 2023.[13] Future research can analyze the effects of this new law, as well as examine outcomes beyond enrollment to include plan choices, affordability of coverage, and pathways to enrollment in the effort to increase our understanding of patterns by race and ethnicity in the Marketplace.

APPENDIX

Appendix Figure 1: Flowchart of HealthCare.gov Race and Ethnicity (R-E) mBIFSG Imputation Methods and Results, 2015-2022[a]

Total Plan Selections = 71,610,609

 # Missing R-E = 23,266,952 (32.5%)

 # Self-Reported R-E = 48,343,657 (67.5%)

AI/AN:	282,386
AANHPI:	4,559,680
Black:	5,006,122
Latino:	8,443,451
Multiracial:	860,396
White:	29,191,622

↓

Missing Replacement of R-E from Other Years →

 # Remaining Missing R-E = 16,841,149 (23.5%) ↓

 # Self-Reported + Missing Replacement R-E = 54,769,460 (76.5%)

AI/AN:	304,132
AANHPI:	5,137,030
Black:	5,944,878
Latino:	9,795,436
Multiracial:	991,351
White:	32,596,633

↓

Geocode Enrollee Residential Addresses and Match to Census Block Group

71,606,727 (99.9%) successfully geocoded

↓

Impute and Calibrate

71,601,053 (99.9%) were imputed

Performance of Imputed R-E
Non-Reporters
(Probability-Based)

R-E	*Imputed Distribution*
Overall:	**100%**
AI/AN:	0.5%
AANHPI:	6.7%
Black:	15.7%
Latino:	26.1%
Multiracial:	1.8%
White:	49.3%
Missing:	0.0%

Performance of Imputed R-E
Self-Reporters + Missing Replacement
(Probability-Based)

R-E	Dist.	*Imp. Dist.*	C-Stat
Overall:	**100%**	**100%**	**0.94**
AI/AN:	0.6%	0.6%	0.62
AANHPI:	9.4%	9.4%	0.96
Black:	10.9%	10.9%	0.95
Latino:	17.9%	17.9%	0.96
Multiracial:	1.8%	1.8%	0.68
White:	59.5%	59.5%	0.94
Missing:	-	0.0%	-

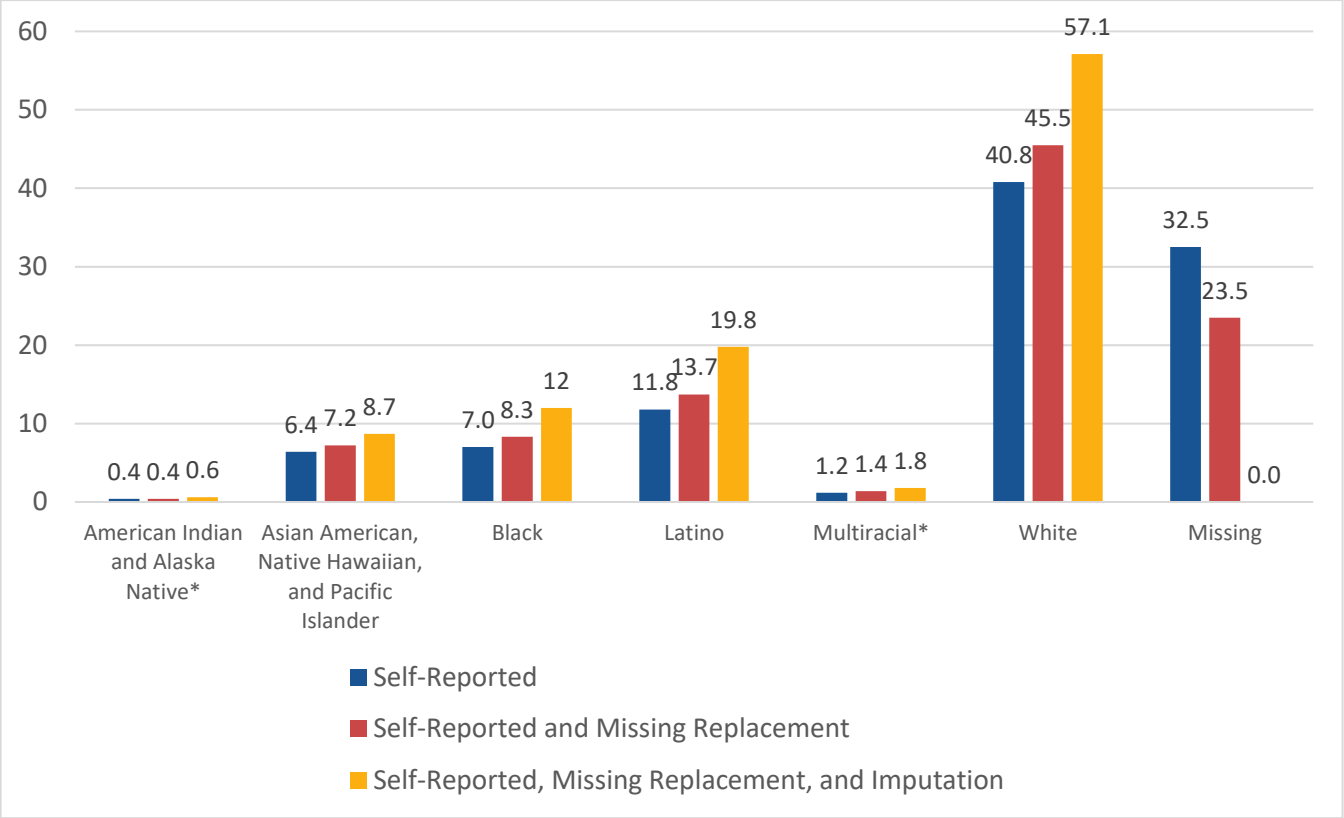
↓

Combined Self-Reported, Missing Replacement, and Imputed R-E

AI/AN:	0.6%
AANHPI:	8.7%
Black:	12.0%
Latino:	19.8%
Multiracial:	1.8%
White:	57.1%
Missing:	<0.1%

Abbreviations: mBIFSG, modified Bayesian Improved First Name Surname Geocoding; AANHPI, Asian American, Native Hawaiian, and Pacific Islander; AI/AN, American Indian and Alaska Native.
[a] Data are from 2015-2022 open enrollment periods for states using HealthCare.gov. The mBIFSG method was used to impute race and ethnicity. Probability-based results used each enrollee's mBIFSG-generated probabilities for race and ethnicity categories.

Appendix Figure 2. Distribution of Race and Ethnicity among HealthCare.gov Enrollees Before and After Missing Replacement and Imputation, 2015-2022



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REFERENCES

[1] Lee A, Ruhter J, Peters C, De Lew N, Sommers BD. National Uninsured Rate Reaches All-Time Low in Early 2022. (Issue Brief No. HP-2022-23). Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services. August 2022. Accessed at: https://www.aspe.hhs.gov/reports/2022-uninsurance-at-all-time-low

[2] Cohen RA, Cha AE, Health Insurance Coverage: Health Insurance Coverage: Early Release of Quarterly Estimates From the National Health Interview Survey, January 2021–March 2022. Accessed at: https://www.cdc.gov/nchs/data/nhis/earlyrelease/quarterly_estimates_2022_q11.pdf

[3] Executive Order on Advancing Racial Equity and Support for Underserved Communities Through the Federal Government. January 20, 2021. The White House. Accessed at: https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/20/executive-order-advancing-racial-equity-and-support-for-underserved-communities-through-the-federal-government/

[4] Executive Order on Strengthening Medicaid and the Affordable Care Act. January 28, 2021. The White House. Accessed at: https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/28/executive-order-on-strengthening-medicaid-and-the-affordable-care-act/

[5] HHS Statements on New Plan to Advance Equity in the Delivery of Health and Human Services. April 14, 2022. HHS. Accessed at: https://www.hhs.gov/about/news/2022/04/14/hhs-statements-on-new-plan-advance-equity-delivery-health-human-services.html

[6] 2021 Final Marketplace Special Enrollment Period Report. HHS. Accessed at: https://www.hhs.gov/sites/default/files/2021-sep-final-enrollment-report.pdf

[7] Branham KD, Finegold K, Chen L, et al. Trends in Missing Race and Ethnicity Information After Imputation in HealthCare.gov Marketplace Enrollment Data, 2015-2021 *JAMA Network Open.* Accessed at: https://jamanetwork.com/journals/jamanetworkopen/fullarticle/10.1001/jamanetworkopen.2022.16715

[8] Palanker D, Clark J, Monahan C. Improving Race and Ethnicity Data Collection: A First Step to Furthering Health Equity Through the State-Based Marketplaces. *The Commonwealth Fund.* June 9, 2022. Accessed at: https://www.commonwealthfund.org/blog/2022/improving-race-and-ethnicity-data-collection-first-step-furthering-health-equity-through

[9] Elliott MN, Fremont A, Morrison PA, Pantoja P, Lurie N. (2008) "A New Method for Estimating Race and Ethnicity and Associated Disparities Where Administrative Records Lack Self-Reported Race/Ethnicity." *Health Services Research*, 43(5p1): 1722-1736.

[10] Fremont A, Weissman JS, Hoch E, Elliott MN. (2016) *When Race and Ethnicity Data Are Lacking: Using Advanced Indirect Estimation Methods to Measure Disparities,* Santa Monica, CA: RAND Corporation, RR-1162-COMMASS. http://www.rand.org/pubs/research_reports/RR1162.html

[11] Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services. Imputation of Race and Ethnicity in Health Insurance Marketplace Enrollment Data, 2015 – 2022 Open Enrollment Periods. (Contractor Project Report No. HP-2022-19). June 2022. Accessed at: https://aspe.hhs.gov/reports/imputation-race-ethnicity-marketplace-enrollment-data

[12] Branham DK, Finegold K, Chen L, et al. Trends in Missing Race and Ethnicity Information After Imputation in HealthCare.gov Marketplace Enrollment Data, 2015-2021. *JAMA Netw Open*. 2022;5(6):e2216715. doi:10.1001/jamanetworkopen.2022.16715.

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