Estimated net undercount after impuation in 2020 with citizenship (Q1 to Q2)

| (A) | (B) | (C) | (D) | (E) | (F) | (G) | (H) | (1) | (1) | (K) | (L) | (M) |
|----------|----------------------|------------|-------------------------|---------|--------|--------------------------|-------------|-----------|-------------|----------------------|--------|-------|
| | Number of Households | | Predicted HH error rate | | | Predicted Net Undercount | | | 2016 | Under/Overcount Rate | | |
| | Total HH | Q1-Q2 rate | estimate | lower | upper | estimate | lower | upper | ACS Pop | estimate | lower | upper |
| National | 125,819,000 | 8,983,477 | 0.3179 | 0.1085 | 0.5273 | 2,855,847 | 974,707 | 4,736,987 | 323,127,515 | 0.88% | 0.30% | 1.47% |
| Latino | 16,667,000 | 2,351,714 | 0.7569 | 0.4614 | 1.0524 | 1,780,012 | 1,085,081 | 2,474,943 | 57,516,698 | 3.09% | 1.89% | 4.30% |
| Asian | 6,328,000 | 407,523 | 0.3439 | -0.4635 | 1.1513 | 140,147 | (188,887) | 469,181 | 17,448,886 | 0.80% | -1.08% | 2.69% |
| Black | 16,539,000 | 1,252,002 | 0.1757 | -0.7216 | 1.0730 | 219,977 | (903,445) | 1,343,398 | 41,037,194 | 0.54% | -2.20% | 3.27% |
| White | 84,445,000 | 4,678,253 | 0.1280 | -0.2413 | 0.4973 | 598,816 | (1,128,862) | 2,326,495 | 197,430,912 | 0.30% | -0.57% | 1.18% |
| Other | 1,840,000 | 156,952 | 0.2501 | 0.0496 | 0.4506 | 39,254 | 7,785 | 70,723 | 9,693,825 | 0.40% | 0.08% | 0.73% |

Relative Latino undercount 350% 625% 294%

Column A: National or racial subgoups in population

Column B: Total Housholds as reported by Census CPS and reported in original Barreto report Table 5, pg 39

Column C: The number of additional HH that will not respond with a citizenship question, based on the Q1-Q2 drop-off rate

Rate is reported in Table 5, pg 39 of original report. For example the national rate is 7.14% x 125,819,000 = 8,983,477

Column D: This is the estimated error rate per HH of how many people per HH imputation will be off by, based on imputation model

Column E: This is the lower confidence interval estimated error rate per HH of how many people per HH imputation will be off

Column F: This is the upper confidence interval estimated error rate per HH of how many people per HH imputation will be off

Column G: This multiplies the error rate in Col D x the households in Col C, e.g. 8,983,477 x .3179 = 2,855,847

Column H: This multiplies the lower bound of the error rate in Col E x the households in Col C

Column I: This multiplies the upper bound of the error rate in Col F x the households in Col C

Column J: This is the total population count as of 2016 Census ACS, to match to 2016 Household count in Column B

Column K: This is the net under or overcount rate, among the full population Col G / Col J, due to a citizenship question based on the midpoint estimate

Column L: This is the net under or overcount rate, among the full population Col H / Col J, due to a citizenship question based on the lower estimate

Column M: This is the net under or overcount rate, among the full population Col I / Col J, due to a citizenship question based on the upper estimate

Imputation models

reg q4 married latino english other usborn parents_fobo educ age inc_cats p_urb p_rent popdens no_trust if q1==1 & q2==1 [aw=weight] predict nat_hh, xb

gen nat_diff = q4-nat_hh

sum q4 if q1==1 & q2==1 [aw=weight]

sum q4 if yes_not_yes==1 [aw=weight]

sum nat diff if yes not yes==1 [aw=weight]

reg nat_diff if yes_not_yes==1 [aw=weight]

subset models to each racial group and replicate

Estimated net undercount after impuation in 2020 with citizenship (Q1 to Q8)

| (A) | (B) | (C) | (D) | (E) | (F) | (G) | (H) | (1) | (1) | (K) | (L) | (M) |
|----------|----------------------|------------|-------------------------|---------|--------|--------------------------|-------------|-----------|-------------|----------------------|--------|-------|
| | Number of Households | | Predicted HH error rate | | | Predicted Net Undercount | | | 2016 | Under/Overcount Rate | | |
| | Total HH | Q1-Q8 rate | estimate | lower | upper | estimate | lower | upper | ACS Pop | estimate | lower | upper |
| National | 125,819,000 | 12,200,668 | -0.0551 | -0.2361 | 0.1259 | (672,257) | (2,880,578) | 1,536,064 | 323,127,515 | -0.21% | -0.89% | 0.48% |
| Latino | 16,667,000 | 2,765,055 | 0.5258 | 0.1759 | 0.8757 | 1,453,866 | 486,373 | 2,421,359 | 57,516,698 | 2.53% | 0.85% | 4.21% |
| Asian | 6,328,000 | 980,840 | -0.1053 | -0.6535 | 0.4429 | (103,282) | (640,979) | 434,414 | 17,448,886 | -0.59% | -3.67% | 2.49% |
| Black | 16,539,000 | 1,976,411 | 0.1820 | -0.4168 | 0.7808 | 359,707 | (823,768) | 1,543,181 | 41,037,194 | 0.88% | -2.01% | 3.76% |
| White | 84,445,000 | 6,232,041 | 0.1280 | -0.2413 | 0.4973 | 797,701 | (1,503,791) | 3,099,194 | 197,430,912 | 0.40% | -0.76% | 1.57% |
| Other | 1,840,000 | 200,008 | 0.2438 | 0.0511 | 0.4365 | 48,762 | 10,220 | 87,303 | 9,693,825 | 0.50% | 0.11% | 0.90% |

Relative Latino undercount 253% 85% 886%

Column A: National or racial subgoups in population

Column B: Total Housholds as reported by Census CPS and reported in original Barreto report Table 5, pg 39

Column C: The number of additional HH that will not respond with a citizenship question, based on the Q1-Q8 drop-off rate

Rate is reported in Table 6, pg 39 of original report. For example the national rate is 9.69% x 125,819,000 = 12,200,668

Column D: This is the estimated error rate per HH of how many people per HH imputation will be off by, based on imputation model

Column E: This is the lower confidence interval estimated error rate per HH of how many people per HH imputation will be off

Column F: This is the upper confidence interval estimated error rate per HH of how many people per HH imputation will be off

Column G: This multiplies the error rate in Col D x the households in Col C, e.g. 12,200,668 x .-.051 = (672,257)

Column H: This multiplies the lower bound of the error rate in Col E x the households in Col C

Column I: This multiplies the upper bound of the error rate in Col F x the households in Col C

Column J: This is the total population count as of 2016 Census ACS, to match to 2016 Household count in Column B

Column K: This is the net under or overcount rate, among the full population Col G / Col J, due to a citizenship question based on the midpoint estimate

Column L: This is the net under or overcount rate, among the full population Col H / Col J, due to a citizenship question based on the lower estimate

Column M: This is the net under or overcount rate, among the full population Col I / Col J, due to a citizenship question based on the upper estimate

Imputation models

reg q4 married latino english other usborn parents_fobo educ age inc_cats p_urb p_rent popdens no_trust if q1==1 & q2==1 [aw=weight] predict nat_hh, xb

gen nat_diff = q4-nat_hh

sum q4 if q1==1 & q2==1 [aw=weight]

sum q4 if syes not yes==1 [aw=weight]

sum nat diff if syes not yes==1 [aw=weight]

reg nat_diff if syes_not_yes==1 [aw=weight]

subset models to each racial group and replicate