**UNITED STATES DEPARTMENT OF COMMERCE**
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MASTER FILE

CENSUS 2000 PROCEDURES AND OPERATIONS MEMORANDUM SERIES R-28

MEMORANDUM FOR Maureen Lynch
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Subject: Accuracy and Coverage Evaluation Survey: Approval and Summary of Large Block Cluster Subsampling Parameter File

## I. INTRODUCTION

The Sample Design Team approves the parameter file required for large block cluster subsampling in the Accuracy and Coverage Evaluation (A.C.E.) survey. These parameters should be used to begin the subsampling process when the first preliminary enhanced list is available. Daily parameter files will be created during the subsampling process to reflect the day-to-day flow of large block cluster subsampling, and will be verified as part of the subsampling verification process. The creation of the initial parameter file is specified in reference 1. The large block cluster subsampling process and the creation of daily parameter files are specified in reference 2.

As the final stage of A.C.E. sampling, large block cluster subsampling involves selecting groups of adjacent housing units called "segments" within clusters that have 80 or more keyed and valid Independent Listing (IL) housing units to be in the A.C.E. interview sample. The parameters used to conduct this subsampling are take-everys, number of segments, and random starts. These parameters are computed to yield target A.C.E. state interview sample sizes. Note that the final sample sizes may differ from the targets since the large block cluster subsampling parameters are calculated before housing unit matching and followup and before relisting, operations that can affect the final number of IL housing units. In addition, housing units with a unit status of Future Construction were excluded in determining the target sample sizes. This is a conservative approach to

ensure that the targets are achieved in the final A.C.E. interview sample. The large block cluster subsampling parameters will not be recalculated based on the results of any succeeding operations or based on the number of Future Construction housing units that are found to exist during housing unit followup.

Any questions or comments about the parameter file or large block cluster subsampling should be directed to Ryan Cromar (301-457-1636), James Farber (301-457-4282), or Deborah Fenstermaker (301-457-4195) of the Decennial Statistical Studies Division (DSSD).

## II. RESULTS

Table 1 and Table 2 give the large block cluster subsampling take-everys and number of segments for each A.C.E. reduction stratum and state, respectively. The A.C.E. reduction strata[1] are:

- Minority block clusters, which are estimated to have a high concentration of minorities based on 1990 Census results
- Low Inconsistent clusters, where the preliminary independent listing (PIL) housing unit count is more than 25 percent lower than the January 2000 Decennial Master Address File (DMAF) housing unit count
- High Inconsistent clusters, where the PIL count is more than 25 percent higher than the DMAF count
- Consistent clusters, where the PIL and DMAF housing unit counts do not differ by more than 25 percent
- Medium Stratum Jumper clusters, which were originally classified as medium clusters (between 3 and 79 housing units) but have a PIL count greater than 80
- Small Stratum Jumper clusters, which were originally classified as small clusters (fewer than 3 housing units) but have a PIL count greater than 80
- American Indian Reservation (AIR) clusters[2]
- Puerto Rico clusters that are not stratum jumpers

The average take-every is approximately 4.5, while the maximum occurs in the High Inconsistent stratum in South Carolina, where 1 out of every 13.25 segments will be selected. Overall, only four take-everys are greater than 10. In general, the number of segments to form in each cluster equals that cluster's take-every rounded up to the next integer. This ensures that each cluster will have at least one segment in the interview sample. Note that the take-every is one for American Indian Reservation (AIR) clusters

[1]See reference 4 for more information on the A.C.E. reduction strata.

[2]There is no large block cluster subsampling on American Indian Reservations.

that have 80 or more IL housing units. No large block cluster subsampling will occur in AIR clusters in order to maximize the accuracy of AIR population estimates.

Table 3 contains the target housing unit interview sample sizes for each reduction stratum and state. The goal of large block cluster subsampling is to minimize within-stratum weight variation between clusters with 80 or more IL housing units, which will undergo subsampling, and clusters with fewer than 80 IL housing units, while adhering to the target sample sizes. In some reduction strata and states, it was not possible to achieve acceptable weight variation using the original allocation documented in reference 3, resulting in large expected weights for subsampled clusters. To reduce weight variation, additional housing unit sample was allocated to these states, as shown in Table 3. Note that this table excludes sample in small clusters with fewer than 10 housing units. Also, housing units with a listing designation of Future Construction were excluded in determining this sample design.

Table 4 and Table 5 show the expected weights for block clusters with 80 or more IL housing units and clusters with fewer than 80 IL housing units, respectively, by reduction stratum and state. For clusters whose IL housing unit count is not changed due to housing unit matching and followup or relisting, these are the final weights. For clusters where the IL housing unit count does change, the final weight may differ if there is a change in the need for large block cluster subsampling in that cluster. For example, a cluster that had 81 housing units before followup may end up with only 79 units if 2 units are found not to exist, thus eliminating the need for subsampling in that cluster.

Table 6 gives the expected housing unit interview sample sizes for each state in clusters with 80 or more IL housing units and clusters with fewer than 80 housing units. Table 7 provides a summary of the keyed and valid IL housing unit counts before large block cluster subsampling. Note that both of these tables include small block clusters with fewer than 10 housing units, which causes the resulting expected national interview sample to exceed the target given in Table 3. Also note that Future Construction housing units are excluded from Tables 6 and 7.

## III. REFERENCES


1 DSSD Census 2000 Procedures and Operations Memorandum Series R-26, "Accuracy and Coverage Evaluation: Large Block Cluster Subsampling Parameter File Specifications," March 8, 2000.

2 DSSD Census 2000 Procedures and Operations Memorandum Series R-27 "Accuracy and Coverage Evaluation: Large Block Cluster Subsampling Specifications," March 8, 2000.

3 DSSD Census 2000 Procedures and Operations Memorandum Series R-15, "Accuracy and Coverage Evaluation Survey: State Interview Sample Size Estimates," June 11, 1999.

4 DSSD Census 2000 Procedures and Operations Memorandum Series R, "Accuracy and Coverage Evaluation Survey: Reduction Specification," September 15, 1999, DRAFT.


cc: DSSD Census 2000 Procedures and Operations Memorandum Series Distribution List
A.C.E. Implementation Team Leaders Distribution List
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Table 1. Large Block Cluster Subsampling Take-Everys by Reduction Stratum and State

| | Reduction Stratum | | | | | | |
|---|---|---|---|---|---|---|---|
| | Min[1] | ILo[2] | IHi[3] | Con[4] | MedSJ[5] | SmSJ[6] | AIR[7] |
| AL | 5.94 | 5.45 | 5.17 | 5.89 | 2.22 | NA[8] | NA |
| AK | 5.47 | 1.00 | 6.62 | 4.91 | 4.74 | NA | 1 |
| AZ | 7.58 | 8.41 | 7.58 | 7.73 | 2.67 | NA | 1 |
| AR | 4.53 | 1.00 | 4.52 | 5.13 | 2.25 | NA | NA |
| CA | 5.73 | 5.77 | 5.63 | 5.77 | 1.43 | 1.00 | 1 |
| CO | 6.73 | 6.94 | 7.11 | 6.78 | 1.80 | NA | 1 |
| CT | 5.17 | 4.46 | 4.37 | 5.35 | 1.42 | NA | NA |
| DE | 5.29 | 4.66 | 4.67 | 5.06 | 2.93 | NA | NA |
| DC | 6.04 | 1.00 | 2.04 | 6.20 | 4.35 | NA | NA |
| FL | 8.74 | 8.74 | 8.74 | 8.74 | 1.19 | NA | 1 |
| GA | 6.84 | 7.08 | 6.81 | 6.87 | 1.13 | NA | NA |
| HI | 8.72 | 7.06 | 7.07 | 10.19 | 1.50 | NA | NA |
| ID | 9.10 | 7.90 | 8.20 | 7.30 | 3.85 | NA | 1 |
| IL | 5.11 | 5.11 | 5.10 | 5.46 | 1.00 | NA | NA |
| IN | 3.84 | 3.85 | 3.85 | 5.56 | 1.00 | NA | NA |
| IA | 10.90 | 6.69 | 6.48 | 5.74 | 1.35 | 1.00 | NA |
| KS | 6.93 | 6.96 | 5.33 | 6.03 | 1.61 | NA | 1 |
| KY | 7.11 | 7.00 | 6.69 | 6.66 | 1.58 | NA | NA |
| LA | 5.23 | 5.32 | 4.32 | 5.33 | 1.80 | NA | NA |
| ME | 1.00 | 1.00 | 5.56 | 5.95 | 2.67 | NA | 1 |
| MD | 6.92 | 7.63 | 7.73 | 6.75 | 1.82 | NA | NA |
| MA | 4.95 | 5.43 | 5.43 | 5.62 | 1.10 | NA | NA |
| MI | 4.39 | 1.00 | 4.40 | 4.67 | 1.00 | NA | 1 |
| MN | 5.06 | 5.03 | 4.91 | 5.41 | 1.00 | NA | 1 |
| MS | 5.23 | 5.58 | 5.90 | 5.56 | 2.93 | NA | 1 |
| MO | 4.54 | 1.00 | 4.54 | 5.99 | 1.09 | 3.59 | NA |
| MT | 8.90 | 8.24 | 8.26 | 7.29 | 4.72 | NA | 1 |
| NE | 4.96 | 8.02 | 1.00 | 5.91 | 3.48 | NA | 1 |
| NV | 8.76 | 9.78 | 10.02 | 8.64 | 5.19 | NA | 1 |
| NH | 1.00 | 7.25 | 5.56 | 6.01 | 2.58 | NA | NA |
| NJ | 5.29 | 5.18 | 5.60 | 5.41 | 1.16 | NA | NA |
| NM | 4.60 | 3.20 | 4.22 | 5.08 | 4.44 | NA | 1 |
| NY | 6.73 | 6.65 | 6.75 | 6.71 | 1.64 | 2.00 | 1 |
| NC | 6.01 | 5.62 | 5.48 | 6.68 | 1.26 | 2.00 | 1 |
| ND | 4.00 | 6.18 | 1.00 | 4.81 | NA | NA | 1 |
| OH | 5.10 | 5.14 | 5.10 | 5.86 | 1.00 | NA | NA |
| OK | 5.49 | 5.37 | 5.66 | 5.26 | 1.57 | NA | 1 |
| OR | 6.46 | 5.94 | 6.26 | 6.29 | 1.43 | NA | 1 |
| PA | 5.08 | 5.08 | 5.07 | 5.50 | 1.09 | NA | NA |
| RI | 5.11 | 4.29 | 1.00 | 5.35 | 3.06 | NA | NA |
| SC | 6.24 | 6.10 | 13.25 | 6.48 | 2.78 | NA | NA |
| SD | 5.04 | 4.04 | 5.60 | 4.86 | 1.55 | NA | 1 |
| TN | 5.93 | 8.75 | 8.54 | 5.98 | 1.60 | 1.00 | NA |
| TX | 7.23 | 7.26 | 7.23 | 7.28 | 1.89 | 1.33 | 1 |
| UT | 5.00 | 8.36 | 7.42 | 5.68 | 4.95 | NA | 1 |
| VT | 1.00 | 5.74 | 5.24 | 6.18 | NA | NA | NA |
| VA | 6.65 | 6.64 | 6.64 | 7.01 | 1.00 | NA | NA |
| WA | 5.06 | 5.11 | 5.10 | 6.20 | NA | 1.00 | 1 |
| WV | 7.67 | 6.63 | 6.34 | 6.23 | 1.99 | NA | NA |
| WI | 4.60 | 4.65 | 4.68 | 5.06 | 1.00 | NA | 1 |
| WY | 8.85 | 2.59 | 2.99 | 3.36 | 2.14 | NA | 1 |
| PR | NA | NA | NA | 8.02 | 1.43 | NA | NA |

[1] Clusters with a high concentration of minorities
[2] Clusters where the Preliminary Independent Listing (PIL) housing unit count is at least 25 percent lower than the Decennial Master Address File (DMAF) count
[3] Clusters where the PIL count is at least 25 percent higher than the DMAF
[4] Clusters where the PIL count and the DMAF do not differ by more than 25 percent
[5] Clusters originally in the medium sampling stratum (3 - 79 housing units) that have a PIL count of 80 or more
[6] Clusters originally in the small sampling stratum (0 - 2 housing units) that have a PIL count of 80 or more
[7] Clusters at least partially on an American Indian Reservation (AIR). All AIR TE's are 1 since there is no large block cluster subsampling in AIR clusters.
[8] There are no 80+ housing unit block clusters in the stratum.

Table 2. Number of Segments in 80+ Housing Unit Clusters by Reduction Stratum and State

| | Reduction Stratum | | | | | | |
|---|---|---|---|---|---|---|---|
| | Min | ILo | IHi | Con | MedSJ | SmSJ | AIR |
| AL | 6 | 6 | 6 | 6 | 3 | NA[1] | NA |
| AK | 6 | 1 | 7 | 5 | 5 | NA | 1 |
| AZ | 8 | 9 | 8 | 8 | 3 | NA | 1 |
| AR | 5 | 1 | 5 | 6 | 3 | NA | NA |
| CA | 6 | 6 | 6 | 6 | 4 | 1 | 1 |
| CO | 7 | 7 | 8 | 7 | 3 | NA | 1 |
| CT | 6 | 5 | 5 | 6 | 4 | NA | NA |
| DE | 6 | 5 | 5 | 6 | 3 | NA | NA |
| DC | 7 | 1 | 3 | 7 | 5 | NA | NA |
| FL | 9 | 9 | 9 | 9 | 7 | NA | 1 |
| GA | 7 | 8 | 7 | 7 | 9 | NA | NA |
| HI | 9 | 8 | 8 | 11 | 3 | NA | NA |
| ID | 10 | 8 | 9 | 8 | 4 | NA | 1 |
| IL | 6 | 6 | 6 | 6 | 1 | NA | NA |
| IN | 4 | 4 | 4 | 6 | 1 | NA | NA |
| IA | 11 | 7 | 7 | 6 | 4 | 1 | NA |
| KS | 7 | 7 | 6 | 7 | 3 | NA | 1 |
| KY | 8 | 7 | 7 | 7 | 3 | NA | NA |
| LA | 6 | 6 | 5 | 6 | 3 | NA | NA |
| ME | 1 | 1 | 6 | 6 | 3 | NA | 1 |
| MD | 7 | 8 | 8 | 7 | 3 | NA | NA |
| MA | 5 | 6 | 6 | 6 | 12 | NA | NA |
| MI | 5 | 1 | 5 | 5 | 1 | NA | 1 |
| MN | 6 | 6 | 5 | 6 | 1 | NA | 1 |
| MS | 6 | 6 | 6 | 6 | 3 | NA | 1 |
| MO | 5 | 1 | 5 | 6 | 13 | 4 | NA |
| MT | 9 | 9 | 9 | 8 | 5 | NA | 1 |
| NE | 5 | 9 | 1 | 6 | 4 | NA | 1 |
| NV | 9 | 10 | 11 | 9 | 6 | NA | 1 |
| NH | 1 | 8 | 6 | 7 | 3 | NA | NA |
| NJ | 6 | 6 | 6 | 6 | 8 | NA | NA |
| NM | 5 | 4 | 5 | 6 | 5 | NA | 1 |
| NY | 7 | 7 | 7 | 7 | 3 | 2 | 1 |
| NC | 7 | 6 | 6 | 7 | 5 | 2 | 1 |
| ND | 4 | 7 | 1 | 5 | NA | NA | 1 |
| OH | 6 | 6 | 6 | 6 | 1 | NA | NA |
| OK | 6 | 6 | 6 | 6 | 3 | NA | 1 |
| OR | 7 | 6 | 7 | 7 | 4 | NA | 1 |
| PA | 6 | 6 | 6 | 6 | 12 | NA | NA |
| RI | 6 | 5 | 1 | 6 | 4 | NA | NA |
| SC | 7 | 7 | 14 | 7 | 3 | NA | NA |
| SD | 6 | 5 | 6 | 5 | 3 | NA | 1 |
| TN | 6 | 9 | 9 | 6 | 3 | 1 | NA |
| TX | 8 | 8 | 8 | 8 | 3 | 5 | 1 |
| UT | 5 | 9 | 8 | 6 | 5 | NA | 1 |
| VT | 1 | 6 | 6 | 7 | NA | NA | NA |
| VA | 7 | 7 | 7 | 8 | 1 | NA | NA |
| WA | 6 | 6 | 6 | 7 | NA | 1 | 1 |
| WV | 8 | 7 | 7 | 7 | 3 | NA | NA |
| WI | 5 | 5 | 5 | 6 | 1 | NA | 1 |
| WY | 9 | 3 | 3 | 4 | 3 | NA | 1 |
| PR | NA | NA | NA | 9 | 4 | NA | NA |

[1] There are no 80+ housing unit block clusters in the stratum.

Table 3. Target Housing Unit Interview Sample Size
by A.C.E. Reduction Stratum and State

| | | | Reduction Stratum | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Total | Min | ILo | IHi | Con | MedSJ | SmSJ | AIR |
| AL* | 4,580 | 1,425 | 503 | 570 | 1,688 | 394 | 0[1] | 0 |
| AK | 1,816 | 1,074 | 69 | 85 | 384 | 188 | 0 | 16 |
| AZ | 7,893 | 1,257 | 341 | 929 | 2,278 | 270 | 0 | 2,818 |
| AR | 2,610 | 494 | 111 | 169 | 1,632 | 204 | 0 | 0 |
| CA | 33,713 | 15,148 | 2,115 | 2,634 | 10,853 | 2,497 | 262 | 204 |
| CO* | 4,151 | 872 | 811 | 362 | 1,764 | 290 | 0 | 52 |
| CT* | 3,370 | 634 | 377 | 377 | 1,864 | 118 | 0 | 0 |
| DE | 1,800 | 449 | 188 | 229 | 639 | 295 | 0 | 0 |
| DC | 1,801 | 1,262 | 91 | 112 | 165 | 171 | 0 | 0 |
| FL | 15,321 | 2,729 | 2,056 | 1,377 | 8,269 | 870 | 0 | 20 |
| GA | 7,832 | 2,777 | 918 | 532 | 3,232 | 373 | 0 | 0 |
| HI* | 3,902 | 3,032 | 186 | 445 | 167 | 72 | 0 | 0 |
| ID | 1,955 | 158 | 208 | 303 | 1,047 | 87 | 0 | 152 |
| IL | 12,360 | 3,250 | 647 | 369 | 7,605 | 489 | 0 | 0 |
| IN | 6,060 | 843 | 634 | 470 | 3,751 | 362 | 0 | 0 |
| IA* | 3,033 | 83 | 183 | 303 | 2,188 | 184 | 92 | 0 |
| KS | 2,730 | 269 | 213 | 476 | 1,604 | 137 | 0 | 31 |
| KY* | 4,110 | 387 | 567 | 428 | 2,676 | 52 | 0 | 0 |
| LA | 4,470 | 1,782 | 492 | 252 | 1,570 | 374 | 0 | 0 |
| ME* | 1,876 | 39 | 116 | 625 | 991 | 104 | 0 | 1 |
| MD* | 5,347 | 1,840 | 523 | 537 | 1,970 | 477 | 0 | 0 |
| MA* | 6,329 | 989 | 556 | 597 | 3,993 | 194 | 0 | 0 |
| MI | 10,228 | 1,416 | 546 | 695 | 7,111 | 312 | 0 | 148 |
| MN | 5,127 | 303 | 349 | 547 | 3,470 | 190 | 0 | 268 |
| MS* | 2,986 | 1,234 | 221 | 342 | 896 | 197 | 0 | 96 |
| MO* | 5,737 | 1,020 | 292 | 904 | 3,313 | 154 | 54 | 0 |
| MT* | 2,751 | 95 | 279 | 361 | 938 | 184 | 0 | 894 |
| NE* | 1,941 | 160 | 349 | 213 | 1,049 | 80 | 0 | 90 |
| NV* | 2,095 | 339 | 194 | 183 | 1,060 | 115 | 0 | 204 |
| NH | 1,800 | 56 | 49 | 478 | 1,002 | 215 | 0 | 0 |
| NJ | 8,339 | 2,810 | 394 | 734 | 3,771 | 630 | 0 | 0 |
| NM | 3,654 | 1,140 | 68 | 66 | 345 | 182 | 0 | 1,853 |
| NY* | 18,936 | 6,630 | 1,985 | 1,787 | 7,646 | 580 | 215 | 93 |
| NC* | 8,168 | 2,128 | 472 | 845 | 3,656 | 835 | 96 | 136 |
| ND | 2,194 | 101 | 184 | 232 | 1,284 | 0 | 0 | 393 |
| OH* | 11,498 | 1,715 | 414 | 601 | 8,420 | 348 | 0 | 0 |
| OK | 3,687 | 1,246 | 77 | 369 | 1,580 | 148 | 0 | 267 |
| OR | 3,486 | 147 | 674 | 436 | 1,675 | 430 | 0 | 124 |
| PA | 12,301 | 1,726 | 1,184 | 1,134 | 7,812 | 445 | 0 | 0 |
| RI | 1,800 | 324 | 137 | 151 | 1,031 | 157 | 0 | 0 |
| SC* | 4,330 | 1,371 | 283 | 317 | 1,900 | 459 | 0 | 0 |
| SD | 2,252 | 129 | 192 | 338 | 1,064 | 76 | 0 | 453 |
| TN* | 5,935 | 1,126 | 478 | 700 | 3,088 | 529 | 14 | 0 |
| TX* | 20,652 | 9,145 | 1,324 | 1,646 | 6,773 | 1,392 | 342 | 30 |
| UT* | 2,455 | 125 | 263 | 371 | 1,275 | 287 | 0 | 134 |
| VT | 1,800 | 24 | 262 | 579 | 935 | 0 | 0 | 0 |
| VA* | 6,964 | 1,976 | 525 | 345 | 3,926 | 192 | 0 | 0 |
| WA | 6,289 | 594 | 594 | 813 | 3,635 | 0 | 215 | 438 |
| WV* | 1,901 | 91 | 152 | 365 | 1,205 | 88 | 0 | 0 |
| WI* | 5,675 | 420 | 252 | 586 | 3,945 | 253 | 0 | 219 |
| WY | 1,898 | 79 | 195 | 637 | 647 | 251 | 0 | 89 |
| US | 303,938 | 78,463 | 24,293 | 28,956 | 144,782 | 16,931 | 1,290 | 9,223 |
| PR* | 14,654 | 0 | 0 | 0 | 13,230 | 1,424 | 0 | 0 |

* Additional housing unit sample was allocated to the state to control weight variation.
[1] Sample was not allocated to strata that did not have any housing units.

Table 4. Expected Weights for 80+ Housing Unit Block Clusters
After Large Block Cluster Subsampling

| | Reduction Stratum | | | | | | |
|---|---|---|---|---|---|---|---|
| | Min | ILo | IHi | Con | MedSJ | SmSJ | AIR[1] |
| AL | 367.82 | 375.03 | 355.48 | 643.74 | 375.32 | NA[2] | 0 |
| AK | 50.62 | NA | 112.99 | 296.61 | 115.57 | NA | 0 |
| AZ | 365.77 | 380.57 | 342.70 | 646.61 | 381.77 | NA | 0 |
| AR | 277.30 | NA | 201.09 | 563.57 | 196.63 | NA | 0 |
| CA | 307.56 | 207.21 | 203.25 | 617.43 | 207.20 | 466.91 | 0 |
| CO | 326.54 | 226.36 | 231.88 | 655.17 | 232.40 | NA | 0 |
| CT | 301.62 | 184.83 | 188.73 | 611.43 | 188.02 | NA | 0 |
| DE | 89.78 | 74.51 | 85.36 | 267.07 | 85.31 | NA | 0 |
| DC | 177.61 | NA | 23.90 | 326.62 | 96.57 | NA | 0 |
| FL | 582.46 | 582.55 | 582.62 | 582.54 | 582.29 | NA | 0 |
| GA | 321.08 | 324.51 | 312.19 | 642.92 | 324.85 | NA | 0 |
| HI | 125.63 | 75.63 | 75.74 | 303.35 | 75.80 | NA | 0 |
| ID | 93.91 | 163.06 | 169.25 | 482.27 | 168.77 | NA | 0 |
| IL | 383.14 | 383.02 | 382.09 | 457.19 | 383.40 | NA | 0 |
| IN | 320.47 | 320.96 | 320.81 | 541.21 | 321.03 | NA | 0 |
| IA | 328.78 | 201.69 | 195.29 | 585.41 | 198.94 | 47.50 | 0 |
| KS | 329.36 | 220.41 | 211.11 | 630.69 | 220.21 | NA | 0 |
| KY | 332.96 | 218.40 | 208.80 | 645.06 | 220.61 | NA | 0 |
| LA | 310.24 | 188.90 | 198.74 | 578.51 | 199.19 | NA | 0 |
| ME | NA | NA | 198.71 | 575.25 | 202.88 | NA | 0 |
| MD | 352.04 | 298.59 | 290.60 | 641.03 | 352.17 | NA | 0 |
| MA | 249.09 | 273.45 | 273.51 | 637.15 | 273.89 | NA | 0 |
| MI | 325.08 | NA | 325.72 | 408.23 | 379.94 | NA | 0 |
| MN | 228.86 | 227.63 | 222.09 | 475.70 | 241.75 | NA | 0 |
| MS | 329.11 | 271.97 | 287.80 | 658.36 | 289.44 | NA | 0 |
| MO | 314.82 | NA | 314.79 | 652.45 | 314.80 | 314.39 | 0 |
| MT | 144.36 | 156.07 | 167.61 | 392.00 | 169.94 | NA | 0 |
| NE | 232.30 | 281.94 | NA | 540.78 | 311.15 | NA | 0 |
| NV | 338.46 | 242.78 | 262.54 | 655.47 | 293.15 | NA | 0 |
| NH | NA | 169.22 | 162.30 | 496.46 | 168.02 | NA | 0 |
| NJ | 281.45 | 284.03 | 287.76 | 639.65 | 288.86 | NA | 0 |
| NM | 268.92 | 204.71 | 231.88 | 465.03 | 237.21 | NA | 0 |
| NY | 332.03 | 222.07 | 219.05 | 660.41 | 332.22 | 241.48 | 0 |
| NC | 409.29 | 382.72 | 373.33 | 705.24 | 383.48 | 239.80 | 0 |
| ND | 67.96 | 58.29 | NA | 148.37 | NA | NA | 0 |
| OH | 395.56 | 399.35 | 395.54 | 481.92 | 381.75 | NA | 0 |
| OK | 283.33 | 188.81 | 198.91 | 575.80 | 199.27 | NA | 0 |
| OR | 347.10 | 229.29 | 224.41 | 655.94 | 229.64 | NA | 0 |
| PA | 339.70 | 339.80 | 339.26 | 578.59 | 339.64 | NA | 0 |
| RI | 124.53 | 114.20 | NA | 359.80 | 132.11 | NA | 0 |
| SC | 408.97 | 408.82 | 394.45 | 700.28 | 408.79 | NA | 0 |
| SD | 98.20 | 52.44 | 60.56 | 177.24 | 61.49 | NA | 0 |
| TN | 326.53 | 312.97 | 305.63 | 653.62 | 313.76 | NA | 0 |
| TX | 348.99 | 272.09 | 272.76 | 652.71 | 272.79 | 500.28 | 0 |
| UT | 264.55 | 265.22 | 235.62 | 493.99 | 265.55 | NA | 0 |
| VT | NA | 86.44 | 92.04 | 275.62 | NA | NA | 0 |
| VA | 280.34 | 280.02 | 279.92 | 530.07 | 275.31 | NA | 0 |
| WA | 246.05 | 248.26 | 247.79 | 566.55 | NA | 400.26 | 0 |
| WV | 373.98 | 215.74 | 206.19 | 655.80 | 216.05 | NA | 0 |
| WI | 285.26 | 287.89 | 289.93 | 499.61 | 285.07 | NA | 0 |
| WY | 32.83 | 38.52 | 40.67 | 122.21 | 41.26 | NA | 0 |
| PR | NA | NA | NA | 132.85 | 132.89 | NA | 0 |

[1] There is no large block cluster subsampling in American Indian Reservation clusters.
[2] There are no 80+ housing unit block clusters in the stratum.

Table 5. Expected Weights for 0 - 79 Housing Unit Block Clusters

| | Reduction Stratum | | | | | | |
|---|---|---|---|---|---|---|---|
| | Min | ILo | IHi | Con | MedSJ[1] | SmSJ | AIR[2] |
| AL | 367.42 | 375.14 | 356.39 | 643.85 | NA[3] | NA | NA |
| AK | 56.12 | 109.80 | 128.10 | 329.40 | 24.40 | NA | 18.00 |
| AZ | 365.75 | 380.99 | 342.89 | 646.67 | 142.87 | NA | 20.85 |
| AR | 300.34 | 203.46 | 209.27 | 598.90 | NA | NA | NA |
| CA | 314.21 | 211.71 | 207.73 | 630.83 | 144.67 | NA | 72.36 |
| CO | 325.86 | 225.95 | 232.40 | 655.49 | NA | NA | 88.50 |
| CT | 301.84 | 184.88 | 188.65 | 611.63 | NA | NA | NA |
| DE | 116.44 | 97.04 | 110.62 | 345.17 | 29.11 | NA | NA |
| DC | 162.67 | 88.73 | 22.18 | 299.45 | 22.18 | NA | NA |
| FL | 491.10 | 491.10 | 491.10 | 491.10 | 491.10 | NA | 32.00 |
| GA | 324.35 | 328.15 | 315.84 | 649.82 | NA | NA | NA |
| HI | 125.61 | 75.80 | NA | 303.20 | NA | NA | NA |
| ID | 131.49 | 125.23 | 131.49 | 376.33 | NA | NA | 79.17 |
| IL | 378.75 | 378.75 | 378.75 | 451.51 | NA | NA | NA |
| IN | 321.03 | 321.03 | 321.03 | 541.07 | NA | NA | NA |
| IA | 295.20 | 180.40 | 177.12 | 529.91 | NA | NA | NA |
| KS | 306.86 | 204.58 | 197.00 | 591.00 | 136.38 | NA | 26.00 |
| KY | 297.29 | 193.19 | 186.53 | 573.59 | NA | NA | NA |
| LA | 344.14 | 21 NA | 221.06 | 640.50 | NA | NA | NA |
| ME | 76.08 | 173.91 | 170.07 | 494.55 | 76.08 | NA | 2 NA |
| MD | 351.86 | 274.16 | 266.10 | 641.05 | NA | NA | NA |
| MA | 249.46 | 249.46 | 249.46 | 581.07 | NA | NA | NA |
| MI | 379.94 | 379.94 | 379.94 | 477.30 | 379.94 | NA | 82.00 |
| MN | 241.75 | 241.75 | 241.75 | 509.72 | NA | NA | 58.90 |
| MS | 328.84 | 225.49 | 239.59 | 660.55 | NA | NA | 18.00 |
| MO | 288.57 | 288.57 | 288.57 | 652.42 | NA | NA | NA |
| MT | 180.03 | 99.02 | 105.90 | 321.39 | 36.01 | NA | 39.62 |
| NE | 232.80 | 179.08 | 194.00 | 539.87 | NA | NA | 44.33 |
| NV | 338.80 | 254.10 | 263.51 | 655.01 | NA | NA | 28.60 |
| NH | 65.09 | 151.89 | 146.46 | 45 NA | NA | NA | NA |
| NJ | 287.86 | 290.05 | 295.22 | 654.24 | NA | NA | NA |
| NM | 381.66 | 293.88 | 338.41 | 661.23 | NA | NA | 25.27 |
| NY | 324.01 | 217.28 | 213.80 | 644.39 | 203.11 | NA | 39.00 |
| NC | 350.78 | 352.28 | 343.47 | 647.63 | 305.31 | NA | 22.75 |
| ND | 91.15 | 78.13 | 66.11 | 201.33 | NA | NA | 24.50 |
| OH | 381.75 | 381.75 | 381.75 | 465.12 | 381.75 | NA | NA |
| OK | 315.93 | 211.70 | 222.29 | 641.46 | 127.02 | NA | 74.62 |
| OR | 347.89 | 229.38 | 224.79 | 656.02 | NA | NA | 26.33 |
| PA | 310.91 | 310.91 | 310.91 | 529.03 | 310.91 | NA | NA |
| RI | 122.17 | 110.87 | 129.35 | 351.84 | NA | NA | NA |
| SC | 409.62 | 409.11 | 399.76 | 647.14 | NA | NA | NA |
| SD | 128.60 | 69.25 | 79.14 | 230.44 | 39.57 | NA | 32.26 |
| TN | 326.22 | 231.32 | 225.85 | 653.55 | NA | 117.43 | NA |
| TX | 347.97 | 271.29 | 272.01 | 650.58 | 144.69 | NA | 13.00 |
| UT | 268.30 | 169.92 | 150.25 | 494.44 | 53.66 | NA | 61.86 |
| VT | 35.25 | 77.55 | 82.94 | 248.42 | NA | NA | NA |
| VA | 275.31 | 275.31 | 275.31 | 520.44 | NA | NA | NA |
| WA | 252.64 | 252.64 | 252.64 | 577.47 | NA | NA | 71.00 |
| WV | 380.24 | 217.28 | 206.42 | 656.37 | NA | NA | NA |
| WI | 285.07 | 285.07 | 285.07 | 499.60 | 285.07 | NA | 54.40 |
| WY | 96.58 | 61.81 | 65.81 | 195.91 | NA | NA | 69.00 |
| PR | NA | NA | NA | 92.63 | 92.63 | NA | NA |

[1] Medium and Small Stratum Jumpers could end up with fewer than 80 housing units because the A.C.E. reduction strata were defined using Preliminary Independent Listing housing units counts while large block cluster subsampling uses the keyed and valid Independent Listing counts. The keyed and valid counts were not available at the time of the A.C.E. reduction.
[2] There are no 0 - 79 housing unit block clusters in that stratum.
[3] There are no 0 - 79 housing unit block clusters in that stratum.

Table 6. Expected State Housing Unit Interview Sample Sizes[1]

| | 80+ Cluster Sample | 0 - 79 Cluster Sample | Total Sample |
|---|---|---|---|
| AL | 1,652 | 2,936 | 4,588 |
| AK | 634 | 1,187 | 1,821 |
| AZ | 2,731 | 5,205 | 7,936 |
| AR | 872 | 1,754 | 2,626 |
| CA | 15,766 | 17,978 | 33,744 |
| CO | 1,449 | 2,720 | 4,169 |
| CT | 1,351 | 2,038 | 3,389 |
| DE | 777 | 1,030 | 1,807 |
| DC | 1,045 | 755 | 1,800 |
| FL | 6,760 | 8,601 | 15,361 |
| GA | 3,332 | 4,527 | 7,859 |
| HI | 2,695 | 1,217 | 3,912 |
| ID | 404 | 1,563 | 1,967 |
| IL | 4,006 | 8,391 | 12,397 |
| IN | 1,821 | 4,271 | 6,092 |
| IA | 837 | 2,220 | 3,057 |
| KS | 616 | 2,147 | 2,763 |
| KY | 1,417 | 2,710 | 4,127 |
| LA | 1,577 | 2,899 | 4,476 |
| ME | 354 | 1,532 | 1,886 |
| MD | 2,774 | 2,579 | 5,353 |
| MA | 2,132 | 4,203 | 6,335 |
| MI | 2,896 | 7,348 | 10,244 |
| MN | 1,480 | 3,679 | 5,159 |
| MS | 701 | 2,333 | 3,034 |
| MO | 2,227 | 3,532 | 5,759 |
| MT | 714 | 2,052 | 2,766 |
| NE | 261 | 1,706 | 1,967 |
| NV | 1,000 | 1,097 | 2,097 |
| NH | 633 | 1,188 | 1,821 |
| NJ | 3,211 | 5,130 | 8,341 |
| NM | 1,011 | 2,675 | 3,686 |
| NY | 9,758 | 9,216 | 18,974 |
| NC | 3,698 | 4,504 | 8,202 |
| ND | 395 | 1,835 | 2,230 |
| OH | 4,096 | 7,434 | 11,530 |
| OK | 1,050 | 2,711 | 3,761 |
| OR | 1,586 | 1,908 | 3,494 |
| PA | 2,953 | 9,378 | 12,331 |
| RI | 619 | 1,186 | 1,805 |
| SC | 1,820 | 2,515 | 4,335 |
| SD | 568 | 1,705 | 2,273 |
| TN | 2,039 | 3,916 | 5,955 |
| TX | 7,731 | 13,033 | 20,764 |
| UT | 859 | 1,601 | 2,460 |
| VT | 532 | 1,284 | 1,816 |
| VA | 3,133 | 3,849 | 6,982 |
| WA | 2,277 | 4,024 | 6,301 |
| WV | 816 | 1,109 | 1,925 |
| WI | 1,352 | 4,353 | 5,705 |
| WY | 573 | 1,337 | 1,910 |
| US | 114,986 | 190,101 | 305,087 |
| PR | 6,974 | 7,713 | 14,687 |

[1] Results include small clusters with fewer than 10 housing units.

Table 7. Keyed and Valid Independent Listing Counts[1]

| | 80+ Clusters | HUs in 80+ Clusters | 0-79 Clusters | HUs in 0-79 Clusters | Total Clusters | Total HUs |
|---|---|---|---|---|---|---|
| AL | 48 | 8,077 | 113 | 2,936 | 161 | 11,013 |
| AK | 21 | 3,276 | 49 | 1,187 | 70 | 4,463 |
| AZ | 61 | 16,629 | 261 | 5,205 | 322 | 21,834 |
| AR | 23 | 3,843 | 85 | 1,754 | 108 | 5,597 |
| CA | 429 | 78,920 | 672 | 17,978 | 1,101 | 96,898 |
| CO | 51 | 8,491 | 115 | 2,720 | 166 | 11,211 |
| CT | 40 | 6,393 | 71 | 2,038 | 111 | 8,431 |
| DE | 25 | 3,441 | 41 | 1,030 | 66 | 4,471 |
| DC | 34 | 5,899 | 24 | 755 | 58 | 6,654 |
| FL | 208 | 52,878 | 325 | 8,601 | 533 | 61,479 |
| GA | 99 | 20,814 | 177 | 4,527 | 276 | 25,341 |
| HI | 74 | 22,169 | 47 | 1,217 | 121 | 23,386 |
| ID | 17 | 2,798 | 90 | 1,563 | 107 | 4,361 |
| IL | 115 | 19,145 | 288 | 8,391 | 403 | 27,536 |
| IN | 42 | 7,325 | 169 | 4,271 | 211 | 11,596 |
| IA | 21 | 3,760 | 101 | 2,220 | 122 | 5,980 |
| KS | 16 | 3,276 | 101 | 2,147 | 117 | 5,423 |
| KY | 47 | 9,273 | 111 | 2,710 | 158 | 11,983 |
| LA | 49 | 6,961 | 150 | 2,899 | 199 | 9,860 |
| ME | 14 | 1,963 | 80 | 1,532 | 94 | 3,495 |
| MD | 75 | 16,944 | 90 | 2,579 | 165 | 19,523 |
| MA | 66 | 10,819 | 144 | 4,203 | 210 | 15,022 |
| MI | 79 | 12,284 | 264 | 7,348 | 343 | 19,632 |
| MN | 44 | 7,080 | 159 | 3,679 | 203 | 10,759 |
| MS | 26 | 3,295 | 98 | 2,333 | 124 | 5,628 |
| MO | 47 | 11,325 | 141 | 3,532 | 188 | 14,857 |
| MT | 19 | 2,925 | 120 | 2,052 | 139 | 4,977 |
| NE | 12 | 1,410 | 88 | 1,706 | 100 | 3,116 |
| NV | 27 | 8,435 | 74 | 1,097 | 101 | 9,532 |
| NH | 23 | 3,051 | 53 | 1,188 | 76 | 4,239 |
| NJ | 88 | 14,613 | 170 | 5,130 | 258 | 19,743 |
| NM | 26 | 3,682 | 186 | 2,675 | 212 | 6,357 |
| NY | 295 | 61,939 | 332 | 9,216 | 627 | 71,155 |
| NC | 97 | 19,467 | 179 | 4,504 | 276 | 23,971 |
| ND | 14 | 1,997 | 107 | 1,835 | 121 | 3,832 |
| OH | 118 | 22,007 | 261 | 7,434 | 379 | 29,441 |
| OK | 32 | 5,266 | 200 | 2,711 | 232 | 7,977 |
| OR | 40 | 7,328 | 129 | 1,908 | 169 | 9,236 |
| PA | 88 | 14,281 | 340 | 9,378 | 428 | 23,659 |
| RI | 21 | 2,842 | 48 | 1,186 | 69 | 4,028 |
| SC | 41 | 10,077 | 101 | 2,515 | 142 | 12,592 |
| SD | 14 | 2,647 | 122 | 1,705 | 136 | 4,352 |
| TN | 55 | 10,455 | 152 | 3,916 | 207 | 14,371 |
| TX | 212 | 47,018 | 581 | 13,033 | 793 | 60,051 |
| UT | 28 | 5,093 | 79 | 1,601 | 107 | 6,694 |
| VT | 19 | 3,138 | 56 | 1,284 | 75 | 4,422 |
| VA | 103 | 20,355 | 155 | 3,849 | 258 | 24,204 |
| WA | 70 | 12,267 | 162 | 4,024 | 232 | 16,291 |
| WV | 24 | 4,783 | 55 | 1,109 | 79 | 5,892 |
| WI | 38 | 5,846 | 173 | 4,353 | 211 | 10,199 |
| WY | 14 | 1,675 | 125 | 1,337 | 139 | 3,012 |
| US | 3,289 | 639,675 | 8,014 | 190,101 | 11,303 | 829,776 |
| PR | 220 | 47,597 | 279 | 7,713 | 499 | 55,310 |

[1] These numbers may change due to housing unit matching and followup or due to relisting.