Logistic Step 2 - Non-Comp

Predicted Probabilities and 95% confidence intervals

| OBS | COMPTYPE | SIZE | PHAT | LCL | UCL | INCOME | P_SUBS | P_HH | P_HHPAS | P_MILES | S2_PARTM |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 176 | Non-Competitive | Event | 0.58219 | 0.44673 | 0.70629 | 17216 | 4.61 | 0.20946 | 0.20967 | 0.18433 | 1 |
| 177 | Non-Competitive | Non-Event | 0.06281 | 0.03322 | 0.11559 | 18580 | 7.59 | 0.13200 | 0.13212 | 0.28070 | 1 |
| 178 | Non-Competitive | Event | 0.73574 | 0.63567 | 0.81627 | 28711 | 21.97 | 0.05263 | 0.04908 | 0.07764 | 1 |
| 179 | Non-Competitive | Non-Event | 0.00547 | 0.00171 | 0.01737 | 18208 | 2.28 | 0.44444 | 0.44444 | 0.50000 | 1 |
| 180 | Non-Competitive | Non-Event | 0.00496 | 0.00146 | 0.01672 | 9345 | 1.00 | 1.00000 | 1.00000 | 1.00000 | 1 |
| 181 | Non-Competitive | Non-Event | 0.56020 | 0.29117 | 0.79796 | 18069 | 1.32 | 0.81055 | 0.74016 | 0.68182 | 1 |
| 182 | Non-Competitive | Non-Event | 0.66463 | 0.53230 | 0.77532 | 22587 | 1.21 | 0.85940 | 0.85940 | 0.62500 | 1 |
| 183 | Non-Competitive | Event | 0.69506 | 0.51829 | 0.82843 | 20920 | 48.26 | 0.01935 | 0.01943 | 0.03448 | 1 |
| 184 | Non-Competitive | Non-Event | 0.00449 | 0.00056 | 0.03516 | 19408 | 1.00 | 1.00000 | 1.00000 | 1.00000 | 0 |
| 185 | Non-Competitive | Non-Event | 0.08990 | 0.04613 | 0.16791 | 20511 | 25.49 | 0.13077 | 0.13348 | 0.10989 | 1 |
| 186 | Non-Competitive | Non-Event | 0.05715 | 0.02978 | 0.10692 | 21141 | 4.75 | 0.72080 | 0.17809 | 0.34000 | 1 |
| 187 | Non-Competitive | Event | 0.43017 | 0.30237 | 0.56801 | 21176 | 36.82 | 0.02940 | 0.03050 | 0.03333 | 1 |
| 188 | Non-Competitive | Non-Event | 0.08856 | 0.04728 | 0.15984 | 24904 | 1.00 | 1.00000 | 1.00000 | 1.00000 | 1 |
| 189 | Non-Competitive | Non-Event | 0.09088 | 0.01766 | 0.35724 | 25527 | 1.00 | 1.00000 | 1.00000 | 1.00000 | 0 |
| 190 | Non-Competitive | Event | 0.41928 | 0.28901 | 0.56187 | 23706 | 1.65 | 0.93858 | 0.41283 | 0.71141 | 1 |
| 191 | Non-Competitive | Non-Event | 0.01965 | 0.00324 | 0.10985 | 27986 | 1.00 | 1.00000 | 1.00000 | 1.00000 | 0 |
| 192 | Non-Competitive | Non-Event | 0.00757 | 0.00239 | 0.02368 | 22727 | 1.94 | 0.79833 | 0.39689 | 0.35000 | 1 |
| 193 | Non-Competitive | Non-Event | 0.14495 | 0.02908 | 0.48964 | 27855 | 1.00 | 1.00000 | 1.00000 | 1.00000 | 0 |
| 194 | Non-Competitive | Non-Event | 0.13308 | 0.07053 | 0.23696 | 21297 | 1.00 | 1.00000 | 1.00000 | 1.00000 | 1 |
| 195 | Non-Competitive | Non-Event | 0.01412 | 0.00493 | 0.03980 | 22583 | 1.00 | 1.00000 | 1.00000 | 1.00000 | 1 |
| 196 | Non-Competitive | Non-Event | 0.01527 | 0.00553 | 0.04144 | 22344 | 16.25 | 0.05263 | 0.05233 | 0.10811 | 1 |
| 197 | Non-Competitive | Event | 0.87619 | 0.77033 | 0.93723 | 28350 | 8.89 | 0.10186 | 0.10813 | 0.18621 | 1 |
| 198 | Non-Competitive | Non-Event | 0.68028 | 0.24729 | 0.93234 | 53890 | 1.00 | 1.15385 | 1.00000 | 1.00000 | 0 |
| 199 | Non-Competitive | Event | 0.87607 | 0.76228 | 0.93970 | 43510 | 21.84 | 0.04143 | 0.04184 | 0.02247 | 1 |
| 200 | Non-Competitive | Event | 0.89403 | 0.77079 | 0.95488 | 47889 | 21.06 | 0.04774 | 0.04506 | 0.04120 | 1 |

| OBS | S2_PASMI | S2_PASUB | S2_SUBMI | S2_SUBSY | S5_PASMI | S5_PASUB | S5_SUBFR | S5_SUBMI | S7_TLTV | S7_TSAT | S7_TOTAC |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 176 | 65.935 | 0.49026 | 48.945 | 0.74231 | 75.000 | 0.43384 | 0.76833 | 57.625 | 4 | 20 | 36 |
| 177 | 37.579 | 0.00000 | 22.368 | 0.59524 | 17.688 | 0.00000 | 0.59364 | 10.500 | 0 | 17 | 27 |
| 178 | 46.885 | 0.48997 | 30.494 | 0.65039 | 29.640 | 0.48993 | 0.60324 | 17.880 | 5 | 28 | 43 |
| 179 | 13.500 | 1.00000 | 9.800 | 0.72593 | 12.000 | 1.00000 | 0.71667 | 8.600 | 5 | 5 | 12 |
| 180 | 48.300 | 0.00000 | 28.200 | 0.58385 | 48.300 | 0.00000 | 0.58385 | 28.200 | 4 | 5 | 13 |
| 181 | 60.945 | 1.00000 | 12.782 | 0.20973 | 66.160 | 1.00000 | 0.21463 | 14.200 | 4 | 39 | 53 |
| 182 | 91.925 | 0.00000 | 68.300 | 0.74300 | 126.400 | 0.00000 | 0.71614 | 90.520 | 0 | 21 | 33 |
| 183 | 131.741 | 0.11877 | 79.043 | 0.59999 | 74.250 | 0.12105 | 0.63973 | 47.500 | 2 | 23 | 33 |
| 184 | 23.000 | 0.00000 | 22.000 | 0.95652 | 23.000 | 0.00000 | 0.95652 | 22.000 | 2 | 8 | 12 |
| 185 | 27.209 | 0.00000 | 13.027 | 0.47880 | 33.050 | 0.00000 | 0.14070 | 4.650 | 8 | 17 | 34 |
| 186 | 24.650 | 0.00000 | 15.210 | 0.61704 | 12.912 | 0.00000 | 0.72893 | 9.412 | 0 | 12 | 27 |
| 187 | 29.359 | 0.27581 | 17.964 | 0.61186 | 26.864 | 0.27329 | 0.54484 | 14.636 | 4 | 20 | 41 |
| 188 | 33.153 | 0.00000 | 15.898 | 0.47955 | 33.153 | 0.00000 | 0.47955 | 15.898 | 10 | 14 | 32 |
| 189 | 28.511 | 0.00000 | 19.787 | 0.69403 | 28.511 | 0.00000 | 0.69403 | 19.787 | 5 | 22 | 36 |
| 190 | 81.691 | 0.00000 | 33.570 | 0.41094 | 47.406 | 0.00000 | 0.60219 | 28.547 | 4 | 28 | 39 |
| 191 | 20.000 | 0.06955 | 11.000 | 0.55000 | 20.000 | 0.06955 | 0.55000 | 11.000 | 6 | 20 | 32 |
| 192 | 23.600 | 0.00000 | 8.533 | 0.36158 | 26.762 | 0.00000 | 0.46975 | 12.571 | 8 | 10 | 23 |
| 193 | 21.038 | 1.00000 | 13.005 | 0.61818 | 21.038 | 1.00000 | 0.61818 | 13.005 | 7 | 23 | 42 |
| 194 | 38.333 | 0.00000 | 32.467 | 0.84696 | 38.333 | 0.00000 | 0.84696 | 32.467 | 3 | 10 | 23 |
| 195 | 65.200 | 0.00000 | 39.200 | 0.60123 | 65.200 | 0.00000 | 0.60123 | 39.200 | 4 | 4 | 13 |
| 196 | 37.189 | 0.00000 | 27.676 | 0.74419 | 18.000 | 0.00000 | 0.87500 | 15.750 | 0 | 6 | 13 |
| 197 | 57.400 | 0.32244 | 53.407 | 0.93043 | 33.333 | 0.26292 | 0.96778 | 32.259 | 6 | 20 | 38 |
| 198 | 61.905 | 0.00000 | 56.905 | 0.91923 | 61.905 | 0.00000 | 0.91923 | 56.905 | 12 | 16 | 35 |
| 199 | 77.552 | 0.39985 | 58.922 | 0.75977 | 144.389 | 0.29130 | 0.83147 | 120.056 | 7 | 18 | 37 |
| 200 | 77.552 | 0.39985 | 58.922 | 0.75977 | 84.818 | 0.34494 | 0.80064 | 67.909 | 7 | 18 | 37 |



Logistic Step 2 - Non-Comp

Predicted Probabilities and 95% confidence intervals

| OBS | COMPTYPE | SIZE | PHAT | LCL | UCL | INCOME | P_SUBS | P_HH | P_HHPAS | P_MILES | S2_PARTM |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 201 | Non-Competitive | Event | 0.99260 | 0.96533 | 0.99845 | 60379 | 268.12 | 0.00654 | 0.00662 | 0.01053 | 1 |
| 202 | Non-Competitive | Event | 0.83568 | 0.72857 | 0.90622 | 26854 | 29.72 | 0.06847 | 0.06878 | 0.02160 | 1 |
| 203 | Non-Competitive | Event | 0.86547 | 0.79059 | 0.91641 | 28605 | 28.42 | 0.04974 | 0.04736 | 0.08232 | 1 |
| 204 | Non-Competitive | Event | 0.83578 | 0.71796 | 0.91052 | 22012 | 17.91 | 0.06777 | 0.05079 | 0.13571 | 1 |
| 205 | Non-Competitive | Event | 0.77520 | 0.67252 | 0.85274 | 26102 | 14.52 | 0.07641 | 0.07003 | 0.06109 | 1 |
| 206 | Non-Competitive | Event | 0.72756 | 0.61571 | 0.81655 | 26057 | 18.88 | 0.06804 | 0.06524 | 0.11558 | 1 |
| 207 | Non-Competitive | Event | 0.84746 | 0.75293 | 0.91014 | 34793 | 18.98 | 0.04571 | 0.04541 | 0.07013 | 1 |
| 208 | Non-Competitive | Event | 0.95317 | 0.85576 | 0.98588 | 55179 | 10.51 | 0.09519 | 0.09519 | 0.06807 | 1 |
| 209 | Non-Competitive | Event | 0.94286 | 0.87195 | 0.97560 | 45461 | 12.94 | 0.07353 | 0.07339 | 0.07975 | 1 |
| 210 | Non-Competitive | Event | 0.72728 | 0.61819 | 0.81456 | 36510 | 10.60 | 0.24555 | 0.07367 | 0.10000 | 1 |
| 211 | Non-Competitive | Event | 0.99439 | 0.97342 | 0.99884 | 64449 | 32.70 | 0.09430 | 0.08064 | 0.15781 | 1 |
| 212 | Non-Competitive | Event | 0.94298 | 0.86150 | 0.97776 | 48709 | 190.30 | 0.00455 | 0.00481 | 0.00000 | 1 |
| 213 | Non-Competitive | Event | 0.93698 | 0.85789 | 0.97342 | 46075 | 1945.95 | 0.00077 | 0.00081 | 0.00051 | 1 |
| 214 | Non-Competitive | Event | 0.91028 | 0.83054 | 0.95455 | 33750 | 398.71 | 0.01328 | 0.00207 | 0.00585 | 1 |
| 215 | Non-Competitive | Event | 0.99458 | 0.91086 | 0.99970 | 104523 | 2085.42 | 0.00058 | 0.00060 | 0.00068 | 1 |
| 216 | Non-Competitive | Event | 0.92481 | 0.84586 | 0.96499 | 43195 | 124.86 | 0.00682 | 0.00651 | 0.00759 | 1 |
| 217 | Non-Competitive | Event | 0.60074 | 0.48895 | 0.70294 | 27212 | 779.47 | 0.00615 | 0.00146 | 0.02469 | 1 |
| 218 | Non-Competitive | Event | 0.71780 | 0.60621 | 0.80779 | 27312 | 3.20 | 1.00000 | 1.00000 | 0.12140 | 1 |
| 219 | Non-Competitive | Event | 1.00000 | 1.00000 | 1.00000 | 38815 | 1.00 | 1.00000 | 1.00000 | 1.00000 | 1 |
| 220 | Non-Competitive | Event | 0.71422 | 0.59427 | 0.81005 | 32097 | 16.13 | 0.05307 | 0.05569 | 0.07130 | 1 |
| 221 | Non-Competitive | Non-Event | 0.63682 | 0.52805 | 0.73319 | 27681 | 5.47 | 0.14944 | 0.15380 | 0.09302 | 1 |
| 222 | Non-Competitive | Event | 0.99998 | 0.99968 | 1.00000 | 25248 | 1.00 | 1.00000 | 1.50562 | 1.00000 | 1 |
| 223 | Non-Competitive | Event | 0.95220 | 0.90501 | 0.97655 | 26976 | 11.87 | 0.07854 | 0.07140 | 0.09302 | 1 |
| 224 | Non-Competitive | Event | 0.74030 | 0.61903 | 0.83336 | 25271 | 3.74 | 0.43366 | 0.27626 | 0.46009 | 1 |
| 225 | Non-Competitive | Non-Event | 0.09871 | 0.05735 | 0.16467 | 24615 | 3.71 | 0.27000 | 0.27000 | 0.26263 | 1 |

| OBS | S2_PASMI | S2_PASUB | S2_SUBMI | S2_SUBSY | S5_PASMI | S5_PASUB | S5_SUBFR | S5_SUBMI | S7_TLTV | S7_TSAT | S7_TOTAC |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 201 | 148.243 | 0.41532 | 83.854 | 0.56565 | 93.103 | 0.66551 | 0.31889 | 29.690 | 13 | 23 | 46 |
| 202 | 119.419 | 0.27485 | 71.768 | 0.60097 | 380.241 | 0.37754 | 0.29401 | 111.793 | 11 | 18 | 38 |
| 203 | 67.854 | 0.48085 | 50.120 | 0.73865 | 39.037 | 0.54192 | 0.54886 | 21.426 | 6 | 23 | 42 |
| 204 | 91.686 | 0.23736 | 75.593 | 0.82448 | 34.316 | 0.16413 | 0.90644 | 31.105 | 1 | 21 | 36 |
| 205 | 69.701 | 0.20951 | 55.251 | 0.79268 | 79.895 | 0.16145 | 0.77931 | 62.263 | 6 | 21 | 37 |
| 206 | 45.211 | 0.62245 | 35.950 | 0.79515 | 25.522 | 0.60158 | 0.64566 | 16.478 | 3 | 21 | 39 |
| 207 | 84.320 | 0.34414 | 63.170 | 0.74917 | 54.600 | 0.28024 | 0.86923 | 47.460 | 5 | 20 | 37 |
| 208 | 55.617 | 0.63871 | 50.182 | 0.90229 | 77.778 | 0.53010 | 0.90190 | 70.148 | 10 | 19 | 39 |
| 209 | 69.147 | 0.50906 | 53.930 | 0.77994 | 63.628 | 0.40628 | 0.82128 | 52.256 | 5 | 25 | 42 |
| 210 | 62.816 | 0.38876 | 42.105 | 0.67029 | 46.279 | 0.26590 | 0.85795 | 39.705 | 5 | 21 | 38 |
| 211 | 88.046 | 0.26195 | 64.600 | 0.73371 | 44.992 | 1.00000 | 0.27822 | 12.518 | 10 | 21 | 50 |
| 212 | 88.046 | 0.26195 | 64.600 | 0.73371 | . | 0.27332 | 0.80209 | . | 12 | 17 | 40 |
| 213 | 88.046 | 0.26195 | 64.600 | 0.73371 | 140.000 | 0.27179 | 0.46429 | 65.000 | 12 | 17 | 40 |
| 214 | 37.394 | 0.88516 | 26.250 | 0.70200 | 13.250 | 0.91111 | 0.84906 | 11.250 | 7 | 24 | 49 |
| 215 | 88.046 | 0.26334 | 64.260 | 0.72984 | 77.500 | 1.00000 | 0.58387 | 45.250 | 12 | 17 | 41 |
| 216 | 97.195 | 0.26370 | 59.904 | 0.61632 | 83.458 | 0.49078 | 0.75786 | 63.250 | 5 | 24 | 42 |
| 217 | 39.481 | 0.07427 | 30.473 | 0.77184 | 2.333 | 0.00000 | 0.67857 | 1.583 | 5 | 20 | 37 |
| 218 | 39.481 | 0.07427 | 30.473 | 0.77184 | 325.220 | 0.08639 | 0.24130 | 78.475 | 6 | 21 | 40 |
| 219 | 518.556 | 1.00000 | 163.757 | 0.31579 | 518.556 | 1.00000 | 0.31579 | 163.757 | 14 | 31 | 76 |
| 220 | 30.857 | 0.49870 | 21.914 | 0.71018 | 24.100 | 0.49881 | 0.79046 | 19.050 | 6 | 23 | 42 |
| 221 | 40.674 | 0.80045 | 30.884 | 0.75929 | 67.250 | 0.83951 | 0.90335 | 60.750 | 3 | 21 | 38 |
| 222 | 287.094 | 1.00000 | 164.648 | 0.57350 | 432.255 | 1.00000 | 0.38090 | 164.648 | 13 | 28 | 67 |
| 223 | 75.567 | 0.15995 | 55.279 | 0.73152 | 58.000 | 0.14486 | 0.86293 | 50.050 | 10 | 26 | 48 |
| 224 | 86.366 | 0.02007 | 67.615 | 0.78289 | 51.857 | 0.01326 | 0.75679 | 39.245 | 4 | 20 | 34 |
| 225 | 25.253 | 0.00000 | 16.778 | 0.66440 | 25.962 | 0.00000 | 0.66370 | 17.231 | 5 | 15 | 28 |

| OBS | COMPTYPE | SIZE | PHAT | LCL | UCL | INCOME | P_SUBS | P_HH | P_HHPAS | P_MILES | S2_PARTH |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 226 | Non-Competitive | Event | 0.77035 | 0.68596 | 0.83743 | 30578 | 225.301 | 0.00465 | 0.00466 | 0.00294 | 1 |
| 227 | Non-Competitive | Event | 0.96268 | 0.91991 | 0.98303 | 39637 | 1.983 | 0.52263 | 0.62727 | 0.47126 | 1 |
| 228 | Non-Competitive | Event | 0.95061 | 0.89288 | 0.97800 | 39410 | 127.397 | 0.00844 | 0.00885 | 0.02500 | 1 |
| 229 | Non-Competitive | Non-Event | 0.51146 | 0.41009 | 0.61189 | 26719 | 5.202 | 0.19897 | 0.19897 | 0.34921 | 1 |
| 230 | Non-Competitive | Event | 0.31989 | 0.22523 | 0.43215 | 20379 | 42.981 | 0.01779 | 0.01860 | 0.01961 | 1 |
| 231 | Non-Competitive | Non-Event | 0.02059 | 0.00843 | 0.04945 | 16827 | 1.000 | 1.00000 | 1.00000 | 1.00000 | 1 |
| 232 | Non-Competitive | Non-Event | 0.87587 | 0.79371 | 0.92827 | 34054 | 916.667 | 0.00173 | 0.00173 | 0.01667 | 1 |
| 233 | Non-Competitive | Event | 0.67562 | 0.53800 | 0.78837 | 17806 | 126.459 | 0.00971 | 0.00971 | 0.02027 | 1 |
| 234 | Non-Competitive | Event | 0.95797 | 0.89766 | 0.98340 | 45234 | 269.235 | 0.00800 | 0.00418 | 0.00469 | 1 |
| 235 | Non-Competitive | Non-Event | 0.19866 | 0.12588 | 0.29912 | 16731 | 13.489 | 0.39160 | 0.08598 | 0.13636 | 1 |
| 236 | Non-Competitive | Non-Event | 0.10861 | 0.06359 | 0.17940 | 27256 | 5.003 | 0.20000 | 0.20000 | 0.20202 | 1 |
| 237 | Non-Competitive | Event | 0.99941 | 0.99541 | 0.99992 | 36184 | 59.969 | 0.02130 | 0.02130 | 0.07500 | 1 |
| 238 | Non-Competitive | Event | 0.19755 | 0.11475 | 0.31858 | 36184 | 212.171 | 0.00414 | 0.00482 | 0.01394 | 1 |
| 239 | Non-Competitive | Event | 0.19631 | 0.11437 | 0.31602 | 35991 | 38.154 | 0.05087 | 0.03604 | 0.04530 | 1 |
| 240 | Non-Competitive | Non-Event | 0.01274 | 0.00485 | 0.03308 | 15833 | 3.513 | 0.09921 | 0.25934 | 0.12500 | 1 |
| 241 | Non-Competitive | Event | 0.32445 | 0.20657 | 0.46976 | 29793 | 24.780 | 0.06259 | 0.04177 | 0.01786 | 1 |
| 242 | Non-Competitive | Event | 0.36411 | 0.26673 | 0.47405 | 27437 | 91.718 | 0.02727 | 0.02200 | 0.03529 | 1 |
| 243 | Non-Competitive | Non-Event | 0.04162 | 0.01720 | 0.09727 | 14167 | 1.000 | 1.00000 | 1.00000 | 1.00000 | 1 |
| 244 | Non-Competitive | Event | 0.60724 | 0.44774 | 0.74674 | 16077 | 1.003 | 0.99743 | 0.99744 | 0.99830 | 1 |
| 245 | Non-Competitive | Non-Event | 0.26148 | 0.17911 | 0.36488 | 20515 | 0.994 | 0.96296 | 1.00000 | 1.00000 | 1 |
| 246 | Non-Competitive | Non-Event | 0.01096 | 0.00291 | 0.04034 | 20237 | 1.000 | 1.00000 | 1.00000 | 1.00000 | 1 |
| 247 | Non-Competitive | Non-Event | 0.01430 | 0.00530 | 0.03797 | 23100 | 1.000 | 1.00000 | 1.00000 | 1.00000 | 1 |
| 248 | Non-Competitive | Non-Event | 0.02624 | 0.01167 | 0.05795 | 18530 | 1.000 | 1.00000 | 1.00000 | 1.00000 | 1 |
| 249 | Non-Competitive | Non-Event | 0.03990 | 0.01873 | 0.08294 | 18553 | 1.000 | 1.00000 | 1.00000 | 1.00000 | 1 |
| 250 | Non-Competitive | Event | 0.73880 | 0.63045 | 0.82425 | 21189 | 920.013 | 0.05549 | 0.00097 | 0.00315 | 1 |

| OBS | S2_PASMI | S2_PASUB | S2_SUBMI | S2_SUBSY | S5_PASMI | S5_PASUB | S5_SUBFR | S5_SUBMI | S7_TLTV | S7_TSAT | S7_TOTAC |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 226 | 77.068 | 0.00000 | 48.374 | 0.62768 | 122.000 | 0.00000 | 0.59836 | 73.000 | 9 | 23 | 40 |
| 227 | 78.349 | 0.46744 | 57.663 | 0.73598 | 104.285 | 0.48050 | 0.59172 | 61.707 | 9 | 22 | 46 |
| 228 | 45.464 | 0.24919 | 36.482 | 0.80244 | 16.091 | 0.34127 | 0.71186 | 11.455 | 8 | 25 | 47 |
| 229 | 49.540 | 0.00000 | 37.571 | 0.75841 | 28.227 | 0.00000 | 0.73269 | 20.682 | 8 | 17 | 34 |
| 230 | 50.069 | 0.00000 | 37.644 | 0.75184 | 47.500 | 0.00000 | 0.94035 | 44.667 | 6 | 14 | 31 |
| 231 | 41.333 | 0.00000 | 19.667 | 0.47581 | 41.333 | 0.00000 | 0.47581 | 19.667 | 5 | 13 | 24 |
| 232 | 57.850 | 0.55673 | 45.833 | 0.79228 | 6.000 | 1.00000 | 0.50000 | 3.000 | 8 | 18 | 41 |
| 233 | 67.507 | 0.04408 | 52.122 | 0.77209 | 32.333 | 0.04918 | 0.62887 | 20.333 | 7 | 19 | 37 |
| 234 | 67.345 | 0.79774 | 36.008 | 0.53467 | 60.000 | 0.80351 | 0.47500 | 28.500 | 6 | 24 | 52 |
| 235 | 43.614 | 0.00000 | 28.818 | 0.66076 | 27.500 | 0.00000 | 0.56970 | 15.667 | 6 | 19 | 32 |
| 236 | 25.253 | 0.00000 | 16.778 | 0.66440 | 25.000 | 0.00000 | 0.66400 | 16.600 | 5 | 15 | 28 |
| 237 | 243.000 | 0.47114 | 194.900 | 0.80206 | 69.000 | 0.50769 | 0.62802 | 43.333 | 5 | 20 | 45 |
| 238 | 45.530 | 0.00000 | 30.310 | 0.66572 | 15.750 | 0.00000 | 0.65079 | 10.250 | 9 | 13 | 27 |
| 239 | 45.530 | 0.00000 | 30.310 | 0.66572 | 36.231 | 0.00000 | 0.48408 | 17.538 | 9 | 13 | 27 |
| 240 | 20.083 | 0.00000 | 11.125 | 0.55394 | 41.667 | 0.00000 | 0.60800 | 25.333 | 8 | 10 | 22 |
| 241 | 18.063 | 1.00000 | 9.934 | 0.54995 | 42.250 | 1.00000 | 0.53136 | 22.450 | 7 | 21 | 40 |
| 242 | 26.741 | 0.00000 | 19.153 | 0.71623 | 16.667 | 0.00000 | 0.35500 | 5.917 | 9 | 18 | 35 |
| 243 | 31.167 | 0.00000 | 25.833 | 0.82888 | 31.167 | 0.00000 | 0.82888 | 25.833 | 0 | 10 | 19 |
| 244 | 93.517 | 0.11911 | 45.609 | 0.48771 | 94.191 | 0.11905 | 0.48766 | 45.933 | 7 | 22 | 41 |
| 245 | 65.000 | 0.00000 | 45.150 | 0.69462 | 65.000 | 0.00000 | 0.69846 | 45.400 | 9 | 14 | 29 |
| 246 | 91.231 | 0.00000 | 15.692 | 0.17201 | 91.231 | 0.00000 | 0.17201 | 15.692 | 5 | 13 | 22 |
| 247 | 43.077 | 0.00000 | 18.000 | 0.41786 | 43.077 | 0.00000 | 0.41786 | 18.000 | 7 | 10 | 22 |
| 248 | 28.885 | 0.00000 | 16.308 | 0.56458 | 28.885 | 0.00000 | 0.56458 | 16.308 | 8 | 10 | 24 |
| 249 | 37.200 | 0.00000 | 26.000 | 0.69892 | 37.200 | 0.00000 | 0.69892 | 26.000 | 8 | 8 | 21 |
| 250 | 87.158 | 0.11675 | 51.273 | 0.58828 | 26.889 | 0.13836 | 0.65702 | 17.667 | 4 | 22 | 41 |



| OBS | COMPTYPE | SIZE | PHAT | LCL | UCL | INCOME | P_SUBS | P_HH | P_HHPAS | P_MILES | S2_PARTH |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 251 | Non-Competitive | Non-Event | 0.00516 | 0.00142 | 0.01860 | 26192 | 1.00 | 1.00000 | 1.00000 | 1.000 | 1 |
| 252 | Non-Competitive | Non-Event | 0.03582 | 0.01633 | 0.07675 | 18230 | 1.00 | 1.00000 | 1.00000 | 1.000 | 1 |
| 253 | Non-Competitive | Non-Event | 0.00139 | 0.00031 | 0.00619 | 14583 | 1.10 | 1.00000 | 1.00000 | 1.000 | 1 |
| 254 | Non-Competitive | Non-Event | 0.00390 | 0.00100 | 0.01512 | 17516 | 1.00 | 1.00000 | 1.00000 | 1.000 | 1 |
| 255 | Non-Competitive | Non-Event | 0.00643 | 0.00196 | 0.02093 | 17127 | 2.72 | 0.44413 | 0.44413 | 0.444 | 1 |
| 256 | Non-Competitive | Non-Event | 0.02491 | 0.01016 | 0.05980 | 14587 | 1.77 | 0.54442 | 0.55725 | 0.593 | 1 |
| 257 | Non-Competitive | Non-Event | 0.03069 | 0.01171 | 0.07800 | 18534 | 1.00 | 1.00000 | 1.00000 | 1.000 | 1 |
| 258 | Non-Competitive | Event | 0.97478 | 0.92859 | 0.99137 | 33197 | 15.74 | 0.06289 | 0.06321 | 0.019 | 1 |
| 259 | Non-Competitive | Event | 0.67546 | 0.54355 | 0.78437 | 21033 | 2.39 | 0.42378 | 0.42371 | 0.445 | 1 |
| 260 | Non-Competitive | Event | 0.93009 | 0.87086 | 0.96330 | 26556 | 13.61 | 0.07201 | 0.07252 | 0.156 | 1 |
| 261 | Non-Competitive | Event | 0.91521 | 0.84069 | 0.95667 | 21377 | 166.72 | 0.00593 | 0.00598 | 0.004 | 1 |
| 262 | Non-Competitive | Non-Event | 0.47141 | 0.31498 | 0.63366 | 26995 | 4.23 | 0.25326 | 0.26009 | 0.000 | 1 |
| 263 | Non-Competitive | Non-Event | 0.46767 | 0.31181 | 0.63010 | 26623 | 18.32 | 0.04941 | 0.05184 | 0.000 | 1 |
| 264 | Non-Competitive | Event | 0.81724 | 0.70178 | 0.89470 | 27562 | 4.97 | 0.28135 | 0.20872 | 0.270 | 1 |
| 265 | Non-Competitive | Non-Event | 0.77536 | 0.63692 | 0.87165 | 22568 | 1.72 | 0.58872 | 0.59156 | 0.388 | 1 |
| 266 | Non-Competitive | Event | 0.85529 | 0.74985 | 0.92097 | 24766 | 17.34 | 0.06856 | 0.04962 | 0.053 | 1 |
| 267 | Non-Competitive | Event | 0.93398 | 0.86699 | 0.96846 | 29666 | 11.09 | 0.18524 | 0.10537 | 0.055 | 1 |
| 268 | Non-Competitive | Event | 0.89321 | 0.81682 | 0.94038 | 34913 | 10.47 | 0.07734 | 0.07540 | 0.057 | 1 |
| 269 | Non-Competitive | Event | 0.90384 | 0.81396 | 0.95281 | 17951 | 286.69 | 0.00325 | 0.00328 | 0.004 | 1 |
| 270 | Non-Competitive | Event | 0.84731 | 0.74752 | 0.91229 | 25899 | 438.55 | 0.02522 | 0.00296 | 0.006 | 1 |
| 271 | Non-Competitive | Non-Event | 0.05980 | 0.03022 | 0.11488 | 26167 | 4.32 | 0.30462 | 0.27636 | 0.444 | 1 |
| 272 | Non-Competitive | Event | 0.02392 | 0.00386 | 0.13408 | 41607 | 10.48 | 0.02886 | 0.03135 | 0.040 | 0 |
| 273 | Non-Competitive | Event | 0.93398 | 0.87700 | 0.96560 | 32275 | 250.22 | 0.00376 | 0.00440 | 0.003 | 1 |
| 274 | Non-Competitive | Non-Event | 0.00040 | 0.00006 | 0.00252 | 19199 | 2.50 | 0.40206 | 0.40206 | 0.400 | 1 |
| 275 | Non-Competitive | Non-Event | 0.00040 | 0.00006 | 0.00252 | 19199 | 1.67 | 0.59794 | 0.59794 | 0.600 | 1 |

| OBS | S2_PASMI | S2_PASUB | S2_SUBMI | S2_SUBSY | S5_PASMI | S5_PASUB | S5_SUBFR | S5_SUBMI | S7_TLTV | S7_TSAT | S7_TOTAC |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 251 | 44.200 | 0.00000 | 13.2000 | 0.29864 | 44.200 | 0.00000 | 0.29864 | 13.200 | 8 | 7 | 19 |
| 252 | 40.800 | 0.00000 | 28.4000 | 0.69608 | 40.800 | 0.00000 | 0.69608 | 28.400 | 1 | 9 | 20 |
| 253 | 26.500 | 0.00000 | 7.6667 | 0.28931 | 26.500 | 0.00000 | 0.26415 | 7.000 | 7 | 7 | 17 |
| 254 | 58.600 | 0.00000 | 14.4000 | 0.24573 | 58.600 | 0.00000 | 0.24573 | 14.400 | 7 | 9 | 19 |
| 255 | 38.778 | 0.00000 | 13.0000 | 0.33524 | 38.750 | 0.00000 | 0.27742 | 10.750 | 8 | 10 | 22 |
| 256 | 63.074 | 0.00000 | 31.0000 | 0.49149 | 59.313 | 0.00000 | 0.49842 | 29.563 | 4 | 15 | 22 |
| 257 | 20.625 | 0.00000 | 18.1875 | 0.88182 | 20.625 | 0.00000 | 0.88182 | 18.188 | 6 | 7 | 16 |
| 258 | 26.342 | 0.31654 | 25.4510 | 0.96619 | 87.500 | 0.36963 | 0.97086 | 84.950 | 8 | 26 | 50 |
| 259 | 67.742 | 0.16301 | 54.8750 | 0.81006 | 64.456 | 0.16525 | 0.80049 | 51.596 | 5 | 17 | 35 |
| 260 | 78.501 | 0.24785 | 60.7446 | 0.77381 | 36.392 | 0.03682 | 0.78400 | 28.532 | 9 | 23 | 44 |
| 261 | 78.501 | 0.24785 | 60.7446 | 0.77381 | 118.500 | 0.25000 | 0.77637 | 92.000 | 9 | 23 | 44 |
| 262 | 41.161 | 0.00000 | 37.9554 | 0.92213 | . | 0.00000 | 0.83820 | . | 5 | 15 | 29 |
| 263 | 41.161 | 0.00000 | 37.9554 | 0.92213 | . | 0.00000 | 0.97871 | . | 5 | 15 | 29 |
| 264 | 77.694 | 0.00000 | 66.4595 | 0.85540 | 60.000 | 0.00000 | 0.82500 | 49.500 | 6 | 18 | 35 |
| 265 | 46.488 | 0.00000 | 41.4875 | 0.89244 | 70.968 | 0.00000 | 0.87955 | 62.419 | 5 | 19 | 38 |
| 266 | 45.079 | 0.00000 | 38.5211 | 0.85452 | 42.500 | 0.00000 | 0.99294 | 42.200 | 5 | 23 | 42 |
| 267 | 114.582 | 0.09923 | 86.5605 | 0.75545 | 218.476 | 0.11763 | 0.64669 | 141.286 | 8 | 22 | 39 |
| 268 | 48.917 | 0.02859 | 35.7984 | 0.73182 | 65.071 | 0.02156 | 0.92667 | 60.300 | 8 | 25 | 45 |
| 269 | 78.501 | 0.24785 | 60.7446 | 0.77381 | 65.000 | 0.14953 | 0.82308 | 53.500 | 9 | 23 | 44 |
| 270 | 51.012 | 0.00000 | 42.8166 | 0.83935 | 25.500 | 0.00000 | 0.64706 | 16.500 | 4 | 25 | 41 |
| 271 | 31.963 | 0.00000 | 22.7778 | 0.71263 | 19.875 | 0.00000 | 0.59748 | 11.875 | 6 | 10 | 22 |
| 272 | 30.833 | 0.27273 | 18.3333 | 0.59459 | 24.167 | 0.18000 | 1.81034 | 43.750 | 6 | 14 | 27 |
| 273 | 67.846 | 0.21570 | 53.6982 | 0.79147 | 100.250 | 0.58333 | 0.71820 | 72.000 | 13 | 20 | 44 |
| 274 | 38.800 | 0.00000 | 5.0000 | 0.12887 | 39.000 | 0.00000 | 0.12821 | 5.000 | 4 | 5 | 12 |
| 275 | 38.800 | 0.00000 | 5.0000 | 0.12887 | 38.667 | 0.00000 | 0.12931 | 5.000 | 4 | 5 | 12 |

Logistic Step 2 - Non-Comp

Predicted Probabilities and 95% confidence intervals

| OBS | COMPTYPE | SIZE | PHAT | LCL | UCL | INCOME | P_SUBS | P_HH | P_HHPAS | P_MILES | S2_PARTM |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 276 | Non-Competitive | Non-Event | . | . | . | 26635 | 24.49 | 0.05313 | 0.04586 | . | 0 |
| 277 | Non-Competitive | Event | 0.98937 | 0.96840 | 0.99648 | 34474 | 132.22 | 0.00749 | 0.00619 | 0.012 | 1 |
| 278 | Non-Competitive | Event | 0.90731 | 0.84223 | 0.94722 | 33601 | 46.00 | 0.07599 | 0.02680 | 0.051 | 1 |
| 279 | Non-Competitive | Event | 0.92304 | 0.85741 | 0.95988 | 38632 | 37.05 | 0.03455 | 0.02709 | 0.047 | 1 |
| 280 | Non-Competitive | Non-Event | 0.00214 | 0.00028 | 0.01589 | 26609 | 1.00 | 1.00000 | 1.00000 | 1.000 | 0 |
| 281 | Non-Competitive | Event | 0.51083 | 0.35233 | 0.66719 | 39792 | 25.71 | 0.06585 | 0.04633 | 0.033 | 1 |
| 282 | Non-Competitive | Event | 0.98264 | 0.95380 | 0.99359 | 41127 | 40.24 | 0.02182 | 0.02328 | 0.032 | 1 |
| 283 | Non-Competitive | Event | 0.54807 | 0.41922 | 0.67079 | 19925 | 11.22 | 0.10889 | 0.11086 | 0.107 | 1 |
| 284 | Non-Competitive | Non-Event | 0.00230 | 0.00057 | 0.00928 | 16066 | 1.00 | 1.00000 | 1.00000 | 1.000 | 1 |
| 285 | Non-Competitive | Non-Event | 0.75146 | 0.47477 | 0.91002 | 31899 | 1.00 | 1.00000 | 1.00000 | 1.000 | 1 |
| 286 | Non-Competitive | Non-Event | 0.03427 | 0.01473 | 0.07766 | 18944 | 1.00 | 1.00000 | 1.00000 | 1.000 | 1 |
| 287 | Non-Competitive | Non-Event | 0.00278 | 0.00037 | 0.02062 | 33497 | 6.74 | 0.03600 | 0.12000 | 0.150 | 0 |
| 288 | Non-Competitive | Non-Event | 0.00422 | 0.00116 | 0.01525 | 19980 | 2.82 | 0.84610 | 0.84610 | 0.846 | 1 |
| 289 | Non-Competitive | Non-Event | 0.15709 | 0.09561 | 0.24728 | 26569 | 39.58 | . | 0.02095 | 0.028 | 1 |
| 290 | Non-Competitive | Non-Event | 0.03052 | 0.01396 | 0.06542 | 21129 | 2.86 | 0.82135 | 0.46390 | 0.000 | 1 |
| 291 | Non-Competitive | Non-Event | 0.10879 | 0.06308 | 0.18122 | 21248 | 5.24 | 0.11000 | 0.16276 | 0.186 | 1 |
| 292 | Non-Competitive | Event | 0.48837 | 0.38801 | 0.58967 | 22132 | 1.03 | 0.89132 | 0.91793 | 0.909 | 1 |
| 293 | Non-Competitive | Non-Event | 0.72132 | 0.54215 | 0.84981 | 14901 | 1.00 | 1.00000 | 1.00000 | 1.000 | 1 |
| 294 | Non-Competitive | Event | 0.84867 | 0.69737 | 0.93174 | 10432 | 1.00 | 1.00000 | 1.00000 | 1.000 | 1 |
| 295 | Non-Competitive | Non-Event | 0.21551 | 0.12971 | 0.33615 | 21343 | 1.00 | 1.00000 | 1.00000 | 1.000 | 1 |
| 296 | Non-Competitive | Non-Event | 0.43267 | 0.32217 | 0.55030 | 18123 | 1.00 | 1.00000 | 1.00000 | 1.000 | 1 |
| 297 | Non-Competitive | Event | 0.20751 | 0.10896 | 0.35926 | 29206 | 2071.23 | 0.00097 | 0.00089 | 0.000 | 1 |
| 298 | Non-Competitive | Event | 0.76340 | 0.60160 | 0.87333 | 40913 | 74.80 | 0.02283 | 0.02283 | 0.027 | 1 |
| 299 | Non-Competitive | Event | 0.65011 | 0.55899 | 0.73145 | 25462 | 30.30 | 0.03211 | 0.03187 | 0.042 | 1 |
| 300 | Non-Competitive | Non-Event | 0.02096 | 0.00820 | 0.05247 | 17329 | 1.00 | 1.00000 | 1.00000 | 100.133 | 1 |

| OBS | S2_PASMI | S2_PASUB | S2_SUBMI | S2_SUBSY | S5_PASMI | S5_PASUB | S5_SUBFR | S5_SUBMI | S7_TLTV | S7_TSAT | S7_TOTAC |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 276 | . | 0.00000 | . | 0.73010 | 23.333 | 0.00000 | 0.65000 | 15.1667 | 9 | 15 | 30 |
| 277 | 57.505 | 0.26603 | 38.0060 | 0.66092 | 30.600 | 0.28155 | 0.80784 | 24.7200 | 4 | 32 | 60 |
| 278 | 63.131 | 0.34645 | 44.5303 | 0.70536 | 33.500 | 0.33565 | 0.57214 | 19.1667 | 13 | 22 | 45 |
| 279 | 63.131 | 0.34645 | 44.5303 | 0.70536 | 36.286 | 0.33894 | 0.70276 | 25.5000 | 13 | 22 | 45 |
| 280 | 25.909 | 0.00000 | 14.7273 | 0.56842 | 25.909 | 0.00000 | 0.56842 | 14.7273 | 7 | 5 | 18 |
| 281 | 25.257 | 0.00000 | 18.7246 | 0.74136 | 35.889 | 0.00000 | 0.62229 | 22.3333 | 7 | 15 | 35 |
| 282 | 70.470 | 1.00000 | 41.5203 | 0.58919 | 50.718 | 1.00000 | 0.62899 | 31.9014 | 13 | 23 | 56 |
| 283 | 39.178 | 0.42048 | 28.3932 | 0.72472 | 40.653 | 0.31588 | 0.58249 | 23.6800 | 6 | 20 | 39 |
| 284 | 20.455 | 0.00000 | 6.1818 | 0.30222 | 20.455 | 0.00000 | 0.30222 | 6.1818 | 5 | 11 | 20 |
| 285 | 66.667 | 0.00000 | 9.6667 | 0.14500 | 66.667 | 0.00000 | 0.14500 | 9.6667 | 9 | 33 | 56 |
| 286 | 19.434 | 0.00000 | 9.0566 | 0.46602 | 19.434 | 0.00000 | 0.46602 | 9.0566 | 5 | 19 | 30 |
| 287 | 18.750 | 0.00000 | 11.8000 | 0.62933 | 15.000 | 0.00000 | 0.77778 | 11.6667 | 5 | 9 | 17 |
| 288 | 24.092 | 0.00000 | 7.3385 | 0.30460 | 24.091 | 0.00000 | 0.12755 | 3.0727 | 15 | 0 | 22 |
| 289 | 31.599 | 0.00000 | 16.7254 | 0.52931 | 23.500 | 0.00000 | 0.63830 | 15.0000 | 6 | 19 | 34 |
| 290 | 17.721 | 0.00000 | 11.6176 | 0.65560 | . | 0.00000 | 0.49374 | . | 6 | 13 | 23 |
| 291 | 23.483 | 0.00000 | 14.6186 | 0.62252 | 20.500 | 0.00000 | 0.72949 | 14.9545 | 5 | 18 | 31 |
| 292 | 54.797 | 0.00000 | 39.4545 | 0.72002 | 55.329 | 0.00000 | 0.76132 | 42.1235 | 3 | 20 | 35 |
| 293 | 62.654 | 0.00000 | 55.5000 | 0.88582 | 62.654 | 0.00000 | 0.88582 | 55.5000 | 2 | 22 | 36 |
| 294 | 80.000 | 0.22587 | 60.7974 | 0.75997 | 80.000 | 0.22587 | 0.75997 | 60.7974 | 6 | 24 | 43 |
| 295 | 45.194 | 0.00000 | 37.3548 | 0.82655 | 45.194 | 0.00000 | 0.82655 | 37.3548 | 8 | 10 | 26 |
| 296 | 70.817 | 0.00000 | 47.2692 | 0.66748 | 70.817 | 0.00000 | 0.66748 | 47.2692 | 7 | 19 | 34 |
| 297 | 106.515 | 0.32731 | 54.7566 | 0.51407 | . | 0.00000 | 0.27845 | . | 6 | 13 | 25 |
| 298 | 103.705 | 0.00000 | 50.5378 | 0.48732 | 87.600 | 0.00000 | 0.28539 | 25.0000 | 9 | 19 | 38 |
| 299 | 67.808 | 0.08269 | 47.0804 | 0.69432 | 50.947 | 0.03017 | 0.71901 | 36.6316 | 6 | 20 | 37 |
| 300 | 43.867 | 0.00000 | 17.6000 | 0.40122 | 0.438 | 0.00000 | 0.40122 | 0.1758 | 1 | 10 | 26 |



Logistic Step 2 - Non-Comp

Predicted Probabilities and 95% confidence intervals

| OBS | COMPTYPE | SIZE | PHAT | LCL | UCL | INCOME | P_SUBS | P_HH | P_HHPAS | P_MILES | S2_PARTM |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 301 | Non-Competitive | Non-Event | 0.00172 | 0.00034 | 0.00875 | 22639 | 1.000 | 1.00000 | 1.00000 | 1.00000 | 1 |
| 302 | Non-Competitive | Non-Event | 0.01843 | 0.00589 | 0.05613 | 32197 | 1.000 | 1.00000 | 1.00000 | 1.00000 | 1 |
| 303 | Non-Competitive | Event | 0.99940 | 0.99599 | 0.99991 | 41949 | 1.000 | 1.00000 | 1.00000 | 1.00000 | 1 |
| 304 | Non-Competitive | Event | 0.99751 | 0.98744 | 0.99951 | 62813 | 178.608 | 0.00482 | 0.00493 | 0.01424 | 1 |
| 305 | Non-Competitive | Non-Event | 0.01663 | 0.00557 | 0.04862 | 25373 | 1.000 | 1.00000 | 1.00000 | 1.00000 | 1 |
| 306 | Non-Competitive | Event | 0.92946 | 0.82339 | 0.97385 | 23727 | 1.016 | 0.99853 | 0.99836 | 0.98968 | 1 |
| 307 | Non-Competitive | Non-Event | 0.24540 | 0.15310 | 0.36909 | 30686 | 1.000 | 1.00000 | 1.00000 | 1.00000 | 1 |
| 308 | Non-Competitive | Non-Event | 0.16242 | 0.09493 | 0.26390 | 27841 | 1.381 | 0.74476 | 0.74476 | 1.00000 | 1 |
| 309 | Non-Competitive | Non-Event | 0.01620 | 0.00563 | 0.04575 | 12120 | 1.000 | 1.00000 | 1.00000 | 1.00000 | 1 |
| 310 | Non-Competitive | Non-Event | 0.04236 | 0.01583 | 0.10846 | 36758 | 2.639 | 0.53153 | 0.53153 | 0.53846 | 1 |
| 311 | Non-Competitive | Non-Event | 0.00879 | 0.00257 | 0.02958 | 28261 | 3.533 | 0.27111 | 0.27111 | 0.27692 | 1 |
| 312 | Non-Competitive | Non-Event | 0.01517 | 0.00433 | 0.05182 | 32770 | 1.000 | 1.00000 | 1.00000 | 1.00000 | 1 |
| 313 | Non-Competitive | Non-Event | 0.10057 | 0.03837 | 0.23856 | 33281 | 1.000 | . | 1.00000 | 1.00000 | 1 |
| 314 | Non-Competitive | Non-Event | 0.01583 | 0.00577 | 0.04272 | 22122 | 1.000 | 1.00000 | 1.00000 | 1.00000 | 1 |
| 315 | Non-Competitive | Non-Event | 0.53730 | 0.35830 | 0.70717 | 22589 | 8.201 | 0.10591 | 0.10591 | 0.12987 | 1 |
| 316 | Non-Competitive | Non-Event | 0.00721 | 0.00238 | 0.02159 | 16295 | 1.000 | 1.00000 | 1.00000 | 1.00000 | 1 |
| 317 | Non-Competitive | Non-Event | 0.00725 | 0.00147 | 0.03499 | 46301 | 1.585 | 0.77087 | 0.77087 | 0.67391 | 1 |
| 318 | Non-Competitive | Event | 0.33105 | 0.08438 | 0.72658 | 22238 | 57.579 | 0.03506 | 0.03506 | 0.02857 | 1 |
| 319 | Non-Competitive | Non-Event | 0.12840 | 0.07694 | 0.20656 | 29472 | 4.191 | 0.25000 | 0.27143 | 0.22500 | 1 |
| 320 | Non-Competitive | Non-Event | 0.00582 | 0.00190 | 0.01767 | 15701 | 1.194 | 0.79848 | 0.79848 | 0.85714 | 1 |
| 321 | Non-Competitive | Non-Event | 0.00155 | 0.00035 | 0.00681 | 21204 | 1.000 | 1.00000 | 1.00000 | 1.00000 | 1 |
| 322 | Non-Competitive | Non-Event | 0.28232 | 0.17550 | 0.42096 | 26897 | 47.644 | 0.02350 | 0.02350 | 0.04000 | 1 |
| 323 | Non-Competitive | Non-Event | 0.34387 | 0.23815 | 0.46771 | 21620 | 78.900 | 0.01374 | 0.00916 | 0.22222 | 1 |
| 324 | Non-Competitive | Non-Event | 0.10828 | 0.04918 | 0.22182 | 30768 | 1.014 | 0.99370 | 0.99271 | 0.96610 | 1 |
| 325 | Non-Competitive | Event | 0.17464 | 0.11518 | 0.25591 | 25184 | 36.110 | 0.03333 | 0.02645 | 0.04695 | 1 |

| OBS | S2_PASMI | S2_PASUB | S2_SUBMI | S2_SUBSY | S5_PASMI | S5_PASUB | S5_SUBFR | S5_SUBMI | S7_TLTV | S7_TSAT | S7_TOTAC |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 301 | 58.375 | 0.00000 | 7.250 | 0.12420 | 58.375 | 0.00000 | 0.12420 | 7.2500 | 0 | 5 | 17 |
| 302 | 52.833 | 0.00000 | 15.389 | 0.29127 | 52.833 | 0.00000 | 0.29127 | 15.3889 | 7 | 11 | 24 |
| 303 | 105.796 | 0.87510 | 29.873 | 0.28236 | 105.796 | 0.87510 | 0.28236 | 29.8731 | 14 | 31 | 80 |
| 304 | 102.531 | 0.27300 | 62.315 | 0.60776 | 35.472 | 0.41610 | 0.69068 | 24.5000 | 6 | 32 | 57 |
| 305 | 40.323 | 0.00000 | 11.484 | 0.28480 | 40.323 | 0.00000 | 0.28480 | 11.4839 | 0 | 15 | 27 |
| 306 | 94.584 | 0.97484 | 29.547 | 0.31240 | 95.413 | 0.98797 | 0.30792 | 29.3796 | 12 | 24 | 57 |
| 307 | 23.745 | 0.00000 | 12.855 | 0.54135 | 23.745 | 0.00000 | 0.54135 | 12.8545 | 8 | 20 | 37 |
| 308 | 37.632 | 0.00000 | 17.632 | 0.46853 | 28.026 | 0.00000 | 0.45540 | 12.7632 | 8 | 19 | 35 |
| 309 | 12.500 | 0.00000 | 5.500 | 0.44000 | 12.500 | 0.00000 | 0.44000 | 5.5000 | 9 | 15 | 29 |
| 310 | 20.454 | 0.00000 | 8.236 | 0.40266 | 20.190 | 0.00000 | 0.28703 | 5.7952 | 9 | 15 | 29 |
| 311 | 22.415 | 0.00000 | 6.523 | 0.29101 | 21.944 | 0.00000 | 0.30380 | 6.6667 | 7 | 13 | 25 |
| 312 | 46.667 | 0.00000 | 10.111 | 0.21667 | 46.667 | 0.00000 | 0.21667 | 10.1111 | 5 | 16 | 26 |
| 313 | 42.000 | 0.00000 | 39.333 | 0.93651 | 42.000 | 0.00000 | 0.93651 | 39.3333 | 3 | 7 | 15 |
| 314 | 43.471 | 0.00000 | 31.471 | 0.72395 | 43.471 | 0.00000 | 0.72395 | 31.4706 | 2 | 6 | 13 |
| 315 | 43.286 | 0.00000 | 18.532 | 0.42814 | 35.300 | 0.00000 | 0.49292 | 17.4000 | 11 | 28 | 47 |
| 316 | 33.250 | 0.00000 | 22.250 | 0.66917 | 33.250 | 0.00000 | 0.66917 | 22.2500 | 4 | 5 | 13 |
| 317 | 12.239 | 0.00000 | 3.239 | 0.26465 | 14.000 | 0.00000 | 0.21659 | 3.0323 | 5 | 12 | 22 |
| 318 | 224.257 | 0.00000 | 67.943 | 0.30297 | 275.200 | 0.00000 | 0.15007 | 41.3000 | 7 | 8 | 20 |
| 319 | 29.167 | 0.00000 | 18.475 | 0.63343 | 35.185 | 0.00000 | 0.55684 | 19.5926 | 5 | 17 | 29 |
| 320 | 25.048 | 0.00000 | 12.905 | 0.51521 | 23.333 | 0.00000 | 0.54048 | 12.6111 | 3 | 10 | 18 |
| 321 | 19.929 | 0.00000 | 5.786 | 0.29032 | 19.929 | 0.00000 | 0.29032 | 5.7857 | 4 | 8 | 17 |
| 322 | 51.910 | 0.00000 | 21.440 | 0.41302 | 30.500 | 0.00000 | 0.36885 | 11.2500 | 9 | 21 | 39 |
| 323 | 24.267 | 0.00000 | 17.533 | 0.72253 | 1.000 | 0.00000 | 1.00000 | 1.0000 | 8 | 21 | 36 |
| 324 | 90.678 | 0.00000 | 33.831 | 0.37308 | 93.175 | 0.00000 | 0.37055 | 34.5263 | 7 | 14 | 27 |
| 325 | 47.038 | 0.00000 | 26.108 | 0.55505 | 26.500 | 0.00000 | 0.58113 | 15.4000 | 6 | 15 | 32 |

Logistic Step 2 - Non-Comp

Predicted Probabilities and 95% confidence intervals

| OBS | COMPTYPE | SIZE | PHAT | LCL | UCL | INCOME | P_SUBS | P_HH | P_HHPAS | P_MILES | S2_PARTM |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 326 | Non-Competitive | Event | 0.91250 | 0.85018 | 0.95041 | 29959 | 1.042 | 0.94574 | 0.94574 | 0.97067 | 1 |
| 327 | Non-Competitive | Event | 0.45614 | 0.33566 | 0.58198 | 33137 | 1.000 | 1.00000 | 1.00000 | 1.00000 | 1 |
| 328 | Non-Competitive | Non-Event | 0.16413 | 0.10565 | 0.24688 | 26236 | 4.246 | 0.31432 | 0.21214 | 0.16949 | 1 |
| 329 | Non-Competitive | Non-Event | 0.28765 | 0.17853 | 0.42865 | 36250 | 11.195 | 0.17863 | 0.11351 | 0.23457 | 1 |
| 330 | Non-Competitive | Non-Event | 0.23515 | 0.15525 | 0.33964 | 29500 | 18.919 | 0.04045 | 0.05033 | 0.03086 | 1 |
| 331 | Non-Competitive | Non-Event | 0.03308 | 0.00521 | 0.18270 | 22197 | 1.000 | 1.00000 | 1.00000 | 1.00000 | 0 |
| 332 | Non-Competitive | Non-Event | 0.00156 | 0.00019 | 0.01260 | 29375 | 1.000 | 1.00000 | 1.00000 | 1.00000 | 0 |
| 333 | Non-Competitive | Non-Event | 0.32111 | 0.24241 | 0.41147 | 28087 | 8.045 | 0.14328 | 0.15544 | 0.07273 | 1 |
| 334 | Non-Competitive | Non-Event | 0.06557 | 0.03214 | 0.12913 | 24122 | 2.065 | 0.53636 | 0.54000 | 0.50000 | 1 |
| 335 | Non-Competitive | Event | 0.89609 | 0.83063 | 0.93813 | 32052 | 20.675 | 0.04880 | 0.04881 | 0.03717 | 1 |
| 336 | Non-Competitive | Non-Event | 0.23958 | 0.16341 | 0.33696 | 21535 | 3.617 | 0.23671 | 0.23671 | 0.14493 | 1 |
| 337 | Non-Competitive | Non-Event | 0.23958 | 0.16341 | 0.33696 | 21535 | 2.266 | 0.46003 | 0.46003 | 0.56522 | 1 |
| 338 | Non-Competitive | Non-Event | 0.27282 | 0.19749 | 0.36386 | 28835 | 1.940 | 0.42491 | 0.53650 | 0.34091 | 1 |
| 339 | Non-Competitive | Non-Event | 0.59069 | 0.48903 | 0.68514 | 27123 | 1.087 | 1.00000 | 1.00000 | 1.00000 | 1 |
| 340 | Non-Competitive | Non-Event | 0.57593 | 0.44308 | 0.69864 | 33096 | 5.365 | 0.19762 | 0.19762 | 0.12222 | 1 |
| 341 | Non-Competitive | Non-Event | 0.09932 | 0.05171 | 0.18232 | 28726 | 1.418 | 0.70975 | 0.70975 | 0.27778 | 1 |
| 342 | Non-Competitive | Event | 0.46168 | 0.33437 | 0.59418 | 34784 | 143.485 | 0.06746 | 0.01417 | 0.05111 | 1 |
| 343 | Non-Competitive | Event | 0.99975 | 0.99739 | 0.99998 | 27841 | 57.362 | 0.02058 | 0.02062 | 0.09434 | 1 |
| 344 | Non-Competitive | Non-Event | 0.00790 | 0.00272 | 0.02268 | 22202 | 5.813 | 0.18642 | 0.18642 | 0.25806 | 1 |
| 345 | Non-Competitive | Event | 0.86474 | 0.77236 | 0.92335 | 25036 | 68.759 | 0.01606 | 0.01606 | 0.00895 | 1 |
| 346 | Non-Competitive | Non-Event | 0.06828 | 0.03647 | 0.12426 | 19389 | 18.655 | 0.05062 | 0.05062 | 0.03846 | 1 |
| 347 | Non-Competitive | Non-Event | 0.02025 | 0.00785 | 0.05122 | 15752 | 1.447 | 0.70615 | 0.70615 | 0.69231 | 1 |
| 348 | Non-Competitive | Non-Event | 0.05407 | 0.00943 | 0.25543 | 18706 | 0.986 | 1.00000 | 1.12000 | 1.00000 | 0 |
| 349 | Non-Competitive | Non-Event | 0.09513 | 0.05257 | 0.16609 | 18750 | 17.861 | 0.05418 | 0.05418 | 0.04545 | 1 |
| 350 | Non-Competitive | Non-Event | 0.01656 | 0.00510 | 0.05242 | 14353 | 1.000 | 1.00000 | 1.00000 | 1.00000 | 1 |

| OBS | S2_PASMI | S2_PASUB | S2_SUBMI | S2_SUBSY | S5_PASMI | S5_PASUB | S5_SUBFR | S5_SUBMI | S7_TLTV | S7_TSAT | S7_TOTAC |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 326 | 97.817 | 0.48819 | 60.405 | 0.61753 | 95.305 | 0.48232 | 0.62685 | 59.7418 | 6 | 24 | 44 |
| 327 | 33.083 | 0.00000 | 19.502 | 0.58948 | 33.083 | 0.00000 | 0.58948 | 19.5016 | 8 | 24 | 39 |
| 328 | 56.407 | 0.00000 | 36.559 | 0.64814 | 70.600 | 0.00000 | 0.71955 | 50.8000 | 3 | 13 | 27 |
| 329 | 40.352 | 0.00000 | 30.130 | 0.74667 | 19.526 | 0.00000 | 0.58760 | 11.4737 | 2 | 13 | 28 |
| 330 | 40.352 | 0.00000 | 30.130 | 0.74667 | 65.800 | 0.00000 | 0.78419 | 51.6000 | 2 | 13 | 28 |
| 331 | 26.000 | 0.00000 | 24.533 | 0.94359 | 26.000 | 0.00000 | 0.94359 | 24.5333 | 7 | 13 | 23 |
| 332 | 16.250 | 0.00000 | 11.750 | 0.72308 | 16.250 | 0.00000 | 0.72308 | 11.7500 | 6 | 2 | 12 |
| 333 | 48.191 | 0.07279 | 32.473 | 0.67384 | 103.000 | 0.09009 | 0.53883 | 55.5000 | 6 | 1 | 32 |
| 334 | 41.667 | 0.00000 | 31.833 | 0.76400 | 45.000 | 0.00000 | 0.68519 | 30.8333 | 4 | 12 | 20 |
| 335 | 75.636 | 0.01832 | 48.190 | 0.63713 | 99.300 | 0.01515 | 0.63142 | 62.7000 | 11 | 22 | 45 |
| 336 | 32.449 | 0.00000 | 22.333 | 0.68825 | 53.000 | 0.00000 | 0.80377 | 42.6000 | 0 | 23 | 33 |
| 337 | 32.449 | 0.00000 | 22.333 | 0.68825 | 26.410 | 0.00000 | 0.66019 | 17.4359 | 0 | 23 | 33 |
| 338 | 49.500 | 0.00000 | 29.170 | 0.58930 | 77.900 | 0.00000 | 0.56611 | 44.1000 | 6 | 18 | 33 |
| 339 | 82.900 | 0.00000 | 54.900 | 0.66224 | 82.900 | 0.00000 | 0.60917 | 50.5000 | 8 | 20 | 34 |
| 340 | 35.422 | 1.00000 | 20.267 | 0.57215 | 57.273 | 1.00000 | 0.53968 | 30.9091 | 12 | 20 | 42 |
| 341 | 26.222 | 0.00000 | 12.444 | 0.47458 | 67.000 | 0.00000 | 0.47164 | 31.6000 | 12 | 14 | 33 |
| 342 | 37.471 | 0.00000 | 21.044 | 0.56162 | 10.391 | 0.00000 | 0.27615 | 2.8696 | 8 | 20 | 39 |
| 343 | 294.585 | 0.55775 | 176.415 | 0.59886 | 64.400 | 0.26994 | 0.50621 | 32.6000 | 5 | 26 | 51 |
| 344 | 29.935 | 0.00000 | 15.000 | 0.50108 | 21.625 | 0.00000 | 0.46243 | 10.0000 | 5 | 10 | 18 |
| 345 | 60.020 | 0.10113 | 49.839 | 0.83037 | 107.750 | 0.10494 | 0.75174 | 81.0000 | 1 | 25 | 41 |
| 346 | 29.250 | 0.00000 | 19.731 | 0.67456 | 38.500 | 0.00000 | 0.71429 | 27.5000 | 9 | 12 | 26 |
| 347 | 40.000 | 0.00000 | 29.492 | 0.73731 | 40.800 | 0.00000 | 0.72168 | 29.4444 | 3 | 0 | 16 |
| 348 | 56.818 | 0.00000 | 47.045 | 0.82800 | 63.636 | 0.00000 | 0.75000 | 47.7273 | 7 | 15 | 26 |
| 349 | 40.273 | 0.00000 | 29.227 | 0.72573 | 48.000 | 0.00000 | 0.75000 | 36.0000 | 7 | 13 | 25 |
| 350 | 14.167 | 0.00000 | 13.500 | 0.95294 | 14.167 | 0.00000 | 0.95294 | 13.5000 | 5 | 3 | 12 |



Logistic Step 2 - Non-Comp

Predicted Probabilities and 95% confidence intervals

| OBS | COMPTYPE | SIZE | PHAT | LCL | UCL | INCOME | P_SUBS | P_HH | P_HHPAS | P_MILES | S2_PARTM |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 351 | Non-Competitive | Event | 0.64225 | 0.53174 | 0.73945 | 25206 | 1.111 | 0.59042 | 0.78829 | 0.83486 | 1 |
| 352 | Non-Competitive | Event | 0.67586 | 0.54191 | 0.78609 | 36669 | 1.226 | 0.81966 | 0.81966 | 0.73707 | 1 |
| 353 | Non-Competitive | Non-Event | 0.92396 | 0.81508 | 0.97101 | 22477 | 1.000 | 1.00000 | 1.00000 | 1.00000 | 1 |
| 354 | Non-Competitive | Non-Event | 0.27757 | 0.15631 | 0.44346 | 38438 | 1.636 | 0.33600 | 0.57895 | 0.36923 | 1 |
| 355 | Non-Competitive | Non-Event | 0.00759 | 0.00252 | 0.02262 | 17500 | 15.883 | 0.05857 | 0.06116 | 0.11594 | 1 |
| 356 | Non-Competitive | Non-Event | 0.16266 | 0.09870 | 0.25627 | 20288 | 7.941 | 0.20000 | 0.09730 | 0.26087 | 1 |
| 357 | Non-Competitive | Non-Event | 0.04519 | 0.01176 | 0.15837 | 31344 | 1.000 | 1.00000 | 1.00000 | 1.50000 | 1 |
| 358 | Non-Competitive | Non-Event | 0.01340 | 0.00328 | 0.05316 | 45556 | 1.313 | 0.33889 | 0.33877 | 0.35484 | 1 |
| 359 | Non-Competitive | Non-Event | 0.00798 | 0.00231 | 0.02718 | 32578 | 4.191 | 0.66111 | 0.66123 | 0.64516 | 1 |
| 360 | Non-Competitive | Non-Event | 0.00147 | 0.00029 | 0.00756 | 19970 | 1.000 | 1.00000 | 1.00000 | 1.00000 | 1 |
| 361 | Non-Competitive | Non-Event | 0.00091 | 0.00009 | 0.00873 | 21803 | 1.000 | 1.00000 | 1.00000 | 1.00000 | 0 |
| 362 | Non-Competitive | Non-Event | 0.00011 | 0.00001 | 0.00134 | 16972 | 1.000 | 1.00000 | 1.00000 | 1.00000 | 0 |
| 363 | Non-Competitive | Non-Event | 0.00078 | 0.00014 | 0.00440 | 26042 | 1.000 | 1.00000 | 1.00000 | 1.00000 | 1 |
| 364 | Non-Competitive | Non-Event | 0.12988 | 0.06736 | 0.23577 | 33532 | 1.000 | 1.00000 | 1.00000 | 1.00000 | 1 |
| 365 | Non-Competitive | Non-Event | 0.00937 | 0.00279 | 0.03103 | 25776 | 1.000 | 1.00000 | 1.00000 | 1.00000 | 1 |
| 366 | Non-Competitive | Non-Event | 0.01108 | 0.00393 | 0.03080 | 22659 | 32.648 | 0.02857 | 0.03003 | 0.05797 | 1 |
| 367 | Non-Competitive | Non-Event | 0.00919 | 0.00299 | 0.02785 | 16176 | 1.000 | 1.00000 | 1.00000 | 1.00000 | 1 |

| OBS | S2_PASMI | S2_PASUB | S2_SUBMI | S2_SUBSY | S5_PASMI | S5_PASUB | S5_SUBFR | S5_SUBMI | S7_TLTV | S7_TSAT | S7_TOTAC |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 351 | 75.183 | 0.00000 | 56.431 | 0.75058 | 70.989 | 0.00000 | 0.85681 | 60.8242 | 5 | 20 | 34 |
| 352 | 37.453 | 0.27616 | 28.875 | 0.77097 | 41.649 | 0.27607 | 0.76748 | 31.9649 | 5 | 16 | 37 |
| 353 | 93.778 | 0.00000 | 93.778 | 1.00000 | 93.778 | 0.00000 | 1.00000 | 93.7778 | 14 | 15 | 35 |
| 354 | 23.385 | 0.00000 | 12.080 | 0.51658 | 36.667 | 0.00000 | 0.54545 | 20.0000 | 4 | 23 | 37 |
| 355 | 52.130 | 0.00000 | 25.551 | 0.49013 | 27.500 | 0.00000 | 0.50455 | 13.8750 | 4 | 7 | 16 |
| 356 | 52.130 | 0.00000 | 25.551 | 0.49013 | 19.444 | 0.00000 | 0.63429 | 12.3333 | 11 | 15 | 34 |
| 357 | 132.500 | 0.00000 | 22.000 | 0.16604 | 88.333 | 0.00000 | 0.16604 | 14.6667 | 7 | 11 | 22 |
| 358 | 17.806 | 0.00000 | 6.355 | 0.35688 | 17.000 | 0.00000 | 0.80214 | 13.6364 | 5 | 13 | 22 |
| 359 | 17.806 | 0.00000 | 6.355 | 0.35688 | 18.250 | 0.00000 | 0.12877 | 2.3500 | 5 | 12 | 22 |
| 360 | 20.328 | 0.00000 | 2.672 | 0.13145 | 20.328 | 0.00000 | 0.13145 | 2.6721 | 8 | 12 | 22 |
| 361 | 89.500 | 1.00000 | 17.250 | 0.19274 | 89.500 | 1.00000 | 0.19274 | 17.2500 | 0 | 5 | 17 |
| 362 | 36.364 | 0.00000 | 8.909 | 0.24500 | 36.364 | 0.00000 | 0.24500 | 8.9091 | 3 | 8 | 12 |
| 363 | 46.500 | 0.00000 | 9.250 | 0.19892 | 46.500 | 0.00000 | 0.19892 | 9.2500 | 4 | 3 | 11 |
| 364 | 23.600 | 0.00000 | 18.600 | 0.78814 | 23.600 | 0.00000 | 0.78814 | 18.6000 | 6 | 13 | 24 |
| 365 | 64.000 | 0.00000 | 18.500 | 0.28906 | 64.000 | 0.00000 | 0.28906 | 18.5000 | 5 | 13 | 20 |
| 366 | 52.130 | 0.00000 | 25.551 | 0.49013 | 27.000 | 0.00000 | 0.50000 | 13.5000 | 4 | 8 | 17 |
| 367 | 60.000 | 0.00000 | 22.417 | 0.37361 | 60.000 | 0.00000 | 0.37361 | 22.4167 | 7 | 11 | 20 |

Attachment 1-C

Cluster Analysis

FASTCLUS Procedure

Replace=FULL Radius=0 Maxclusters=10 Maxiter=10 Converge=0.02

Initial Seeds

| Cluster | S2_AGEHE | S2_ASUBS | S2_MILES | S2_MSOMU | S2_PABOV | S2_PARTM | S2_PASUB | S2_SUBSY | S2BURY | S5_ADDRS | S5_BURY | S5_HEADA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -0.1100 | -0.2566 | 0.3171 | -0.4567 | -0.8697 | 0.3630 | -0.3716 | -0.0161 | -0.3877 | 0.0892 | -0.3796 | -0.0749 |
| 2 | -0.4994 | 6.5709 | 2.0683 | 2.3894 | -1.3780 | 0.3630 | 2.1588 | -0.3787 | 2.5730 | -0.1951 | 2.6283 | -0.4729 |
| 3 | 3.7841 | -0.3972 | -0.5182 | -0.6223 | 0.8538 | -2.7483 | -0.6207 | 2.0995 | -0.3877 | -0.2033 | -0.3796 | 3.9054 |
| 4 | -0.4994 | -0.2525 | 0.1571 | -0.6223 | 0.0842 | -2.7483 | 0.2407 | 0.1184 | 2.5730 | -0.1843 | 2.6283 | -0.7382 |
| 5 | -0.3696 | 2.8581 | -0.0543 | 0.0603 | -0.5315 | 0.3630 | 2.5378 | -1.3148 | -0.3877 | 6.5691 | -0.3796 | -0.3402 |
| 6 | 0.8198 | 4.4930 | 3.8762 | -0.6148 | 0.0842 | 0.3630 | 2.1433 | -1.4866 | 2.5730 | 9.9703 | 2.6283 | 0.0578 |
| 7 | -0.3696 | -0.3972 | -0.4501 | -0.5822 | 0.8538 | 0.3630 | -0.6207 | -1.3724 | 2.5730 | -0.2033 | 2.6283 | -0.3402 |
| 8 | 0.2794 | 0.1430 | 1.8152 | -0.5646 | -0.5315 | 0.3630 | -0.2445 | -0.4310 | -0.3877 | 0.9171 | -0.3796 | 0.3232 |
| 9 | -0.6292 | -0.3928 | -0.5148 | -0.6223 | -2.9941 | -2.7483 | 2.5378 | -1.7831 | -0.3877 | -0.1941 | -0.3796 | -0.6056 |
| 10 | -0.6292 | 4.6258 | 1.8095 | -0.6223 | 0.6999 | -2.7483 | 2.2358 | -1.4368 | -0.3877 | 10.2467 | -0.3796 | -0.6056 |

| Cluster | S5_MILES | S5_PABOV | S5_PASUB | S5_SUBFR | S6_FPAID | S7_FYACB | S7_FYARC | S7_TOTAC | S7_TDTV | S7_TLTV | S7_TSAT |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.2185 | -0.1060 | -0.3818 | 0.0894 | 8.7463 | 13.7642 | 3.8869 | 0.3386 | 0.9421 | -0.8059 | 0.8124 |
| 2 | -0.3036 | 0.0308 | 0.1836 | -0.5673 | -0.2232 | -0.1937 | -0.2050 | 1.4929 | -1.2858 | 0.6735 | 1.5560 |
| 3 | -0.3036 | 0.7148 | -0.6232 | 1.8727 | -0.2232 | -0.1937 | -0.2050 | -1.2486 | 2.2788 | -1.9895 | -1.4185 |
| 4 | -0.2385 | 0.3728 | -0.0724 | 5.4706 | -0.2124 | -0.1915 | -0.1859 | -0.5993 | -0.8402 | -0.2142 | -0.5509 |
| 5 | 1.0911 | -0.5165 | 2.4366 | -1.0052 | 6.5355 | -0.1937 | -0.2050 | 2.9358 | -0.8402 | 2.1529 | 1.5560 |
| 6 | 12.9650 | 0.0308 | 2.0544 | -1.1501 | 9.1931 | 3.3453 | 15.1852 | 3.2244 | 0.9421 | 2.1529 | 1.5560 |
| 7 | -0.1322 | 0.7148 | -0.6232 | -1.8209 | -0.2281 | -0.1850 | -0.1982 | -0.9680 | 0.4965 | 2.4488 | -2.2861 |
| 8 | 6.6734 | -0.5165 | -0.2589 | -0.2605 | 3.4990 | -0.1937 | 4.2310 | 0.4107 | -0.3946 | 0.0817 | 0.4406 |
| 9 | -0.2933 | -2.7055 | 2.4366 | -1.4000 | -0.2185 | -0.1937 | -0.2050 | -1.3929 | 0.0509 | -0.2142 | -1.6664 |
| 10 | 6.7248 | 0.5780 | 2.1440 | -1.1081 | 11.8440 | -0.1937 | 0.5965 | 2.0700 | -0.3946 | 0.9694 | 1.5560 |

Minimum Distance Between Seeds = 8.911756



| Iteration | Change in Cluster Seeds 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 4.46244 | 6.112379 | 5.576217 | 5.497728 | 3.404975 | 0 | 5.30124 | 4.01064 | 5.326445 | 0 |
| 2 | 0 | 0.60771 | 0.364399 | 0.923298 | 0 | 0 | 0.506393 | 1.603746 | 1.002061 | 0 |
| 3 | 0 | 0.377205 | 0.214039 | 1.344443 | 0 | 0 | 0.468188 | 0 | 0.547334 | 0 |
| 4 | 0 | 0 | 0.184751 | 0.938356 | 0 | 0 | 0.275254 | 0 | 0.197215 | 0 |
| 5 | 0 | 0.328612 | 0.136137 | 0.55039 | 0 | 0 | 0.175634 | 0 | 0.090065 | 0 |
| 6 | 0 | 0.513486 | 0.103448 | 0.372034 | 0 | 0 | 0.102567 | 0 | 0.114458 | 0 |
| 7 | 0 | 0 | 0.039067 | 0.194629 | 0 | 0 | 0.066865 | 0 | 0 | 0 |
| 8 | 0 | 0 | 0 | 0.206294 | 0 | 0 | 0.063281 | 0 | 0 | 0 |
| 9 | 0 | 0 | 0 | 0.310112 | 0 | 0 | 0.087638 | 0 | 0 | 0 |
| 10 | 0 | 0 | 0 | 0.152292 | 0 | 0 | 0.027943 | 0 | 0.05581 | 0 |

Cluster Listing

| Obs | CP_COMMU | Cluster | Distance from Seed |
|---|---|---|---|
| 1 | AL0012 | 1 | 4.46244 |
| 2 | AL0127 | 3 | 3.14498 |
| 3 | AL0191 | 3 | 2.27852 |
| 4 | AL0371 | 1 | 4.29289 |
| 5 | AL0380 | 9 | 3.67024 |
| 6 | AL0380 | 9 | 3.64070 |
| 7 | AL0432 | 9 | 3.38774 |
| 8 | AL0516 | 7 | 2.55771 |
| 9 | AL0588 | 7 | 2.72717 |
| 10 | AL0610 | 7 | 1.97029 |
| 11 | AL0626 | 9 | 6.29184 |
| 12 | AR0026 | 3 | 2.67115 |
| 13 | AR0121 | 3 | 3.22462 |
| 14 | AR0212 | 4 | 3.49802 |
| 15 | AR0394 | 7 | 1.17022 |
| 16 | AR0449 | 7 | 2.44015 |
| 17 | AR0450 | 7 | 2.45725 |
| 18 | AR0519 | 7 | 1.58352 |
| 19 | AR0535 | 7 | 2.50823 |
| 20 | AR0541 | 7 | 3.33155 |
| 21 | AR0576 | 9 | 3.75199 |
| 22 | AR0619 | 7 | 1.48481 |
| 23 | AZ0031 | 7 | 4.47057 |
| 24 | AZ0053 | 2 | 5.22913 |
| 25 | AZ0098 | 7 | 2.57813 |
| 26 | AZ0111 | 9 | 2.77884 |
| 27 | AZ0181 | 9 | 3.16979 |
| 28 | AZ0181 | 9 | 3.32048 |
| 29 | AZ0210 | 7 | 3.35277 |
| 30 | AZ0268 | 4 | 4.00414 |
| 31 | AZ0282 | 7 | 2.94781 |
| 32 | AZ0293 | 7 | 4.98093 |
| 33 | AZ0303 | 9 | 4.98332 |
| 34 | CA0200 | 9 | 3.69813 |
| 35 | CA0357 | 3 | 3.24949 |
| 36 | CA0531 | 5 | 3.91513 |
| 37 | CA0589 | 8 | 5.10719 |
| 38 | CA0654 | 9 | 3.59031 |

| Obs | CP_COMMU | Cluster | Distance from Seed |
|---|---|---|---|
| 39 | CA0751 | 7 | 4.85347 |
| 40 | CA0850 | 4 | 3.52551 |
| 41 | CA0933 | 3 | 3.01169 |
| 42 | CA1021 | 7 | 4.47990 |
| 43 | CA1119 | 9 | 3.05384 |
| 44 | CA1120 | 9 | 3.49673 |
| 45 | CA1127 | 9 | 3.88919 |
| 46 | CA1276 | 9 | 5.14250 |
| 47 | CA1294 | 9 | 3.37298 |
| 48 | CA1294 | 9 | 3.70575 |
| 49 | CA1401 | 7 | 3.57007 |
| 50 | CA1420 | 9 | 3.61773 |
| 51 | CA1420 | 9 | 3.52176 |
| 52 | CO0133 | 9 | 3.37788 |
| 53 | CO0197 | 2 | 6.30507 |
| 54 | CO0218 | 4 | 2.24553 |
| 55 | CO0221 | 7 | 2.31182 |
| 56 | CO0254 | 8 | 4.90306 |
| 57 | CO0330 | 4 | 2.76209 |
| 58 | CO0393 | 7 | 2.36274 |
| 59 | DE0082 | 7 | 3.29546 |
| 60 | DE0082 | 7 | 3.52223 |
| 61 | FL0038 | 3 | 2.60615 |
| 62 | FL0110 | 9 | 3.02724 |
| 63 | FL0118 | 3 | 2.28968 |
| 64 | FL0136 | 3 | 2.93948 |
| 65 | FL0178 | 9 | 2.56603 |
| 66 | FL0322 | 2 | 4.37329 |
| 67 | FL0375 | 9 | 2.62793 |
| 68 | FL0435 | 3 | 3.20203 |
| 69 | FL0548 | 4 | 2.89052 |
| 70 | FL0653 | 1 | 3.33367 |
| 71 | FL0679 | 7 | 3.64690 |
| 72 | FL0749 | 4 | 4.53964 |
| 73 | FL0749 | 4 | 6.43228 |
| 74 | FL0843 | 9 | 2.55938 |
| 75 | FL0851 | 9 | 4.63693 |
| 76 | FL0851 | 9 | 4.10454 |
| 77 | FL0894 | 9 | 3.76074 |
| 78 | FL0996 | 9 | 3.44639 |
| 79 | GA0025 | 3 | 4.00909 |
| 80 | GA0025 | 3 | 3.92284 |
| 81 | GA0033 | 9 | 4.06599 |
| 82 | GA0063 | 9 | 3.21701 |
| 83 | GA0199 | 3 | 2.67079 |
| 84 | GA0679 | 4 | 4.46430 |
| 85 | GA0715 | 3 | 1.23027 |
| 86 | GA0753 | 9 | 5.81932 |
| 87 | GA0757 | 4 | 6.01961 |
| 88 | GA0864 | 7 | 2.56635 |
| 89 | GA0881 | 4 | 3.18769 |
| 90 | HI0074 | 7 | 2.39260 |
| 91 | IA0294 | 9 | 2.29253 |
| 92 | IA0525 | 3 | 2.68035 |
| 93 | IA0741 | 3 | 4.01137 |



| Obs | CP_COMMU | Cluster | Distance from Seed |
|---|---|---|---|
| 94 | IA0787 | 3 | 2.57012 |
| 95 | ID0009 | 9 | 3.42543 |
| 96 | ID0206 | 7 | 3.89398 |
| 97 | IL0087 | 3 | 1.45398 |
| 98 | IL0140 | 4 | 4.71850 |
| 99 | IL0448 | 3 | 2.13323 |
| 100 | IL0554 | 4 | 4.88447 |
| 101 | IL0601 | 9 | 2.49296 |
| 102 | IL0694 | 7 | 2.28462 |
| 103 | IL0710 | 7 | 1.82836 |
| 104 | IL0883 | 7 | 4.58267 |
| 105 | IL0931 | 7 | 1.65740 |
| 106 | IL0984 | 5 | 3.64461 |
| 107 | IL0990 | 9 | 4.89408 |
| 108 | IL1031 | 7 | 3.48864 |
| 109 | IL1033 | 7 | 3.27894 |
| 110 | IL1060 | 7 | 4.83648 |
| 111 | IL1077 | 9 | 3.92345 |
| 112 | IL1078 | 9 | 4.14895 |
| 113 | IL1134 | 9 | 3.31696 |
| 114 | IL1264 | 7 | 2.68101 |
| 115 | IL1303 | 7 | 4.73218 |
| 116 | IL1363 | 9 | 6.42507 |
| 117 | IL1382 | 7 | 1.52732 |
| 118 | IL1459 | 4 | 2.92696 |
| 119 | IL1474 | 4 | 4.75749 |
| 120 | IN0115 | 3 | 2.11515 |
| 121 | IN0377 | 3 | 2.02640 |
| 122 | IN0494 | 9 | 3.08238 |
| 123 | IN0500 | 3 | 2.19892 |
| 124 | IN0512 | 4 | 2.68806 |
| 125 | IN0531 | 7 | 2.03182 |
| 126 | IN0531 | 7 | 2.02983 |
| 127 | IN0543 | 7 | 1.21711 |
| 128 | IN0603 | 7 | 2.25349 |
| 129 | IN0695 | 7 | 1.95579 |
| 130 | IN0828 | 4 | 3.05364 |
| 131 | KS0030 | 3 | 4.06109 |
| 132 | KS0103 | 3 | 1.97691 |
| 133 | KS0179 | 7 | 2.32149 |
| 134 | KS0318 | 7 | 3.31096 |
| 135 | KS0398 | 7 | 4.01518 |
| 136 | KS0525 | 4 | 4.24646 |
| 137 | KS0555 | 7 | 1.76718 |
| 138 | KY0007 | 3 | 6.16568 |
| 139 | KY0154 | 9 | 4.17555 |
| 140 | KY0380 | 2 | 3.76965 |
| 141 | KY0392 | 7 | 2.07690 |
| 142 | KY0542 | 9 | 3.25433 |
| 143 | KY0548 | 3 | 2.21827 |
| 144 | KY0625 | 7 | 2.17154 |
| 145 | KY0867 | 4 | 4.07858 |
| 146 | KY0909 | 3 | 2.53333 |
| 147 | KY1009 | 9 | 4.10420 |
| 148 | LA0085 | 3 | 1.99010 |

| Obs | CP_COMMU | Cluster | Distance from Seed |
|---|---|---|---|
| 149 | LA0447 | 3 | 3.14212 |
| 150 | LA0515 | 7 | 4.76599 |
| 151 | LA0535 | 7 | 3.85633 |
| 152 | MA0125 | 9 | 3.19905 |
| 153 | MA0237 | 9 | 2.25035 |
| 154 | MD0009 | 9 | 4.17753 |
| 155 | MD0009 | 9 | 4.45707 |
| 156 | MD0241 | 7 | 3.42108 |
| 157 | MD0322 | 7 | 3.29051 |
| 158 | MD0354 | 3 | 2.51770 |
| 159 | MD0354 | 3 | 2.41863 |
| 160 | ME0035 | 3 | 3.21649 |
| 161 | ME0096 | 3 | 1.47107 |
| 162 | ME0267 | 7 | 2.20283 |
| 163 | MI0011 | 4 | 3.47767 |
| 164 | MI0409 | 9 | 4.27704 |
| 165 | MI0471 | 7 | 2.91549 |
| 166 | MI0658 | 3 | 2.82911 |
| 167 | MI0749 | 7 | 2.04881 |
| 168 | MI0793 | 7 | 2.02693 |
| 169 | MI0844 | 7 | 2.60174 |
| 170 | MI0869 | 9 | 1.39878 |
| 171 | MI0948 | 7 | 2.57903 |
| 172 | MI1005 | 7 | 3.75873 |
| 173 | MI1039 | 10 | 0.00000 |
| 174 | MI1088 | 7 | 2.09049 |
| 175 | MI1167 | 4 | 4.64615 |
| 176 | MI1298 | 7 | 1.81151 |
| 177 | MI1343 | 7 | 2.32183 |
| 178 | MI1346 | 4 | 3.32043 |
| 179 | MI1346 | 4 | 3.47458 |
| 180 | MI1557 | 4 | 3.38314 |
| 181 | MI1673 | 7 | 2.20699 |
| 182 | MI1753 | 7 | 2.32030 |
| 183 | MI1781 | 7 | 2.66629 |
| 184 | MN0049 | 3 | 2.80376 |
| 185 | MN0058 | 3 | 2.45652 |
| 186 | MN0115 | 7 | 2.87710 |
| 187 | MN0182 | 7 | 3.34716 |
| 188 | MN0319 | 8 | 5.14393 |
| 189 | MN0684 | 7 | 2.76271 |
| 190 | MN0781 | 7 | 3.10353 |
| 191 | MN0882 | 7 | 3.19452 |
| 192 | MN0839 | 9 | 5.29523 |
| 193 | MN0891 | 9 | 5.34118 |
| 194 | MN0899 | 7 | 2.20800 |
| 195 | MO0127 | 3 | 1.96268 |
| 196 | MO0132 | 9 | 3.58290 |
| 197 | MO0138 | 3 | 2.13099 |
| 198 | MO0261 | 9 | 3.86490 |
| 199 | MO0322 | 9 | 2.29598 |
| 200 | MO0322 | 9 | 2.46356 |
| 201 | MO0373 | 7 | 1.87996 |
| 202 | MO0413 | 7 | 1.72439 |
| 203 | MO0495 | 4 | 3.43549 |



| Obs | CP_COMMU | Cluster | Distance from Seed |
|---|---|---|---|
| 204 | MO0540 | 7 | 2.09459 |
| 205 | MO0719 | 7 | 3.66920 |
| 206 | MO0720 | 7 | 3.85985 |
| 207 | MO0919 | 7 | 2.51244 |
| 208 | MO0946 | 7 | 1.10227 |
| 209 | MS0040 | 9 | 2.73640 |
| 210 | MS0216 | 7 | 2.21862 |
| 211 | MS0245 | 4 | 3.28588 |
| 212 | MS0259 | 9 | 4.73021 |
| 213 | MS0324 | 7 | 1.96449 |
| 214 | MS0444 | 9 | 5.59393 |
| 215 | MT0007 | 3 | 3.51809 |
| 216 | MT0052 | 3 | 3.39447 |
| 217 | MT0146 | 7 | 6.20163 |
| 218 | NC0361 | 7 | 2.86260 |
| 219 | NC0393 | 7 | 4.08954 |
| 220 | NC0530 | 7 | 2.98663 |
| 221 | NC0671 | 4 | 2.75639 |
| 222 | NC0682 | 7 | 4.43984 |
| 223 | NC0752 | 3 | 2.92982 |
| 224 | NC0781 | 7 | 3.24075 |
| 225 | NC0793 | 7 | 2.46546 |
| 226 | NC0896 | 9 | 3.70787 |
| 227 | NE0057 | 3 | 2.69539 |
| 228 | NE0111 | 9 | 3.20575 |
| 229 | NE0133 | 7 | 2.10327 |
| 230 | NE0320 | 7 | 4.92836 |
| 231 | NH0819 | 7 | 3.50530 |
| 232 | NJ0027 | 4 | 5.68254 |
| 233 | NJ0133 | 9 | 3.26802 |
| 234 | NJ0142 | 9 | 3.14346 |
| 235 | NJ0369 | 2 | 2.79517 |
| 236 | NJ0373 | 3 | 2.90772 |
| 237 | NJ0373 | 3 | 2.96699 |
| 238 | NJ0404 | 2 | 3.42270 |
| 239 | NJ0404 | 2 | 4.45935 |
| 240 | NJ0564 | 9 | 1.82696 |
| 241 | NY0011 | 3 | 2.68621 |
| 242 | NY0025 | 3 | 1.88578 |
| 243 | NY0067 | 9 | 3.39001 |
| 244 | NY0085 | 3 | 2.04982 |
| 245 | NY0272 | 9 | 3.42886 |
| 246 | NY0596 | 3 | 2.79410 |
| 247 | NY0650 | 3 | 1.94156 |
| 248 | NY0740 | 2 | 4.83547 |
| 249 | NY0816 | 2 | 3.77148 |
| 250 | NY0839 | 2 | 3.55373 |
| 251 | NY0894 | 9 | 3.12550 |
| 252 | NY1043 | 2 | 3.86223 |
| 253 | NY1085 | 2 | 2.70835 |
| 254 | NY1248 | 3 | 1.76281 |
| 255 | NY1248 | 3 | 2.47282 |
| 256 | NY1280 | 5 | 3.40498 |
| 257 | NY1284 | 9 | 2.49098 |
| 258 | NY1364 | 9 | 3.61488 |

| Obs | CP_COMMU | Cluster | Distance from Seed |
|---|---|---|---|
| 259 | NY1414 | 5 | 1.80428 |
| 260 | OH0264 | 9 | 2.53312 |
| 261 | OH0264 | 9 | 2.91524 |
| 262 | OH0398 | 7 | 4.13690 |
| 263 | OH0590 | 7 | 2.22209 |
| 264 | OH0660 | 7 | 1.47446 |
| 265 | OH0755 | 3 | 1.72215 |
| 266 | OH0800 | 9 | 2.23648 |
| 267 | OH0891 | 4 | 3.84992 |
| 268 | OH1092 | 4 | 3.17662 |
| 269 | OH1243 | 3 | 1.75476 |
| 270 | OH1529 | 7 | 1.35240 |
| 271 | OH1603 | 9 | 2.63854 |
| 272 | OH1644 | 3 | 1.18864 |
| 273 | OH1662 | 2 | 3.62505 |
| 274 | OH1692 | 3 | 2.81549 |
| 275 | OH1710 | 7 | 1.53920 |
| 276 | OH1721 | 9 | 4.26178 |
| 277 | OH1730 | 3 | 1.83084 |
| 278 | OH1730 | 3 | 2.00670 |
| 279 | OH1782 | 7 | 1.50971 |
| 280 | OH1884 | 9 | 2.35293 |
| 281 | OH1980 | 7 | 3.14367 |
| 282 | OK0177 | 7 | 3.59478 |
| 283 | OK0187 | 8 | 4.15371 |
| 284 | OK0207 | 3 | 1.92892 |
| 285 | OK0250 | 4 | 3.97652 |
| 286 | OK0282 | 7 | 1.28714 |
| 287 | OK0337 | 7 | 1.41581 |
| 288 | OK0368 | 7 | 2.03033 |
| 289 | OK0391 | 4 | 4.61268 |
| 290 | OK0431 | 7 | 2.15630 |
| 291 | OK0475 | 7 | 3.11764 |
| 292 | OK0476 | 7 | 2.34369 |
| 293 | OK0521 | 7 | 2.33183 |
| 294 | OK0526 | 7 | 1.93773 |
| 295 | OR0146 | 7 | 3.40978 |
| 296 | OR0219 | 7 | 2.75417 |
| 297 | OR0228 | 3 | 3.03851 |
| 298 | OR0258 | 3 | 5.27500 |
| 299 | PA0130 | 3 | 3.48469 |
| 300 | PA0200 | 7 | 2.48086 |
| 301 | PA0321 | 3 | 2.59979 |
| 302 | PA0324 | 3 | 2.66853 |
| 303 | PA0404 | 7 | 4.27152 |
| 304 | PA0406 | 7 | 4.49913 |
| 305 | PA0411 | 3 | 1.40663 |
| 306 | PA0465 | 3 | 3.11794 |
| 307 | PA0478 | 3 | 5.93355 |
| 308 | PA0478 | 3 | 5.81703 |
| 309 | PA0552 | 3 | 5.22781 |
| 310 | PA0552 | 9 | 5.60012 |
| 311 | PA0959 | 3 | 3.55843 |
| 312 | PA1106 | 7 | 3.42758 |
| 313 | PA1582 | 3 | 3.08274 |



| Obs | CP_COMMU | Cluster | Distance from Seed |
|---|---|---|---|
| 314 | PA1900 | 3 | 2.65942 |
| 315 | PA2193 | 7 | 2.84932 |
| 316 | PA2237 | 3 | 3.03798 |
| 317 | PA2286 | 4 | 6.65658 |
| 318 | PA2296 | 9 | 3.64748 |
| 319 | PA2469 | 7 | 4.04909 |
| 320 | PA2470 | 7 | 4.04706 |
| 321 | PA2629 | 7 | 3.50569 |
| 322 | PA2745 | 3 | 5.62579 |
| 323 | PA2821 | 3 | 2.84863 |
| 324 | PA2822 | 3 | 2.83118 |
| 325 | PA2966 | 7 | 3.24544 |
| 326 | PA3097 | 3 | 2.77569 |
| 327 | RI0016 | 2 | 4.08852 |
| 328 | SC0102 | 9 | 2.11797 |
| 329 | SC0384 | 7 | 4.08600 |
| 330 | SC0420 | 9 | 5.20927 |
| 331 | SC0473 | 7 | 1.21345 |
| 332 | SC0527 | 7 | 4.53494 |
| 333 | SC0532 | 7 | 3.51159 |
| 334 | TN0326 | 4 | 4.83184 |
| 335 | TN0371 | 3 | 2.41701 |
| 336 | TN0450 | 7 | 3.35645 |
| 337 | TN0524 | 7 | 1.64921 |
| 338 | TX0011 | 3 | 1.97246 |
| 339 | TX0021 | 3 | 3.13961 |
| 340 | TX0074 | 7 | 3.83241 |
| 341 | TX0204 | 4 | 3.89261 |
| 342 | TX0503 | 3 | 5.52956 |
| 343 | TX0505 | 2 | 3.35328 |
| 344 | TX0510 | 4 | 3.21271 |
| 345 | TX0611 | 3 | 1.28537 |
| 346 | TX0696 | 7 | 6.57296 |
| 347 | TX0698 | 7 | 4.30779 |
| 348 | TX0701 | 7 | 3.60728 |
| 349 | TX0762 | 6 | 0.00000 |
| 350 | TX0782 | 2 | 3.07059 |
| 351 | TX0791 | 7 | 3.03676 |
| 352 | TX0805 | 8 | 4.86771 |
| 353 | TX0894 | 7 | 3.04199 |
| 354 | TX0895 | 7 | 2.95633 |
| 355 | TX0929 | 7 | 1.81281 |
| 356 | TX1130 | 7 | 2.01391 |
| 357 | TX1135 | 7 | 1.82540 |
| 358 | TX1366 | 7 | 2.33378 |
| 359 | TX1396 | 7 | 3.38564 |
| 360 | TX1410 | 7 | 2.53163 |
| 361 | TX1421 | 7 | 3.06235 |
| 362 | TX1551 | 7 | 2.17092 |
| 363 | TX1597 | 7 | 2.24592 |
| 364 | TX1683 | 4 | 3.63396 |
| 365 | TX1704 | 7 | 3.34851 |
| 366 | TX1811 | 7 | 1.59014 |
| 367 | TX1830 | 7 | 2.18185 |
| 368 | TX2031 | 7 | 2.08068 |

| Obs | CP_COMMU | Cluster | Distance from Seed |
|---|---|---|---|
| 369 | TX2050 | 3 | 3.75286 |
| 370 | TX2074 | 4 | 4.04369 |
| 371 | UT0097 | 4 | 2.82606 |
| 372 | UT0098 | 4 | 3.35605 |
| 373 | UT0193 | 7 | 1.91161 |
| 374 | VA0031 | 8 | 4.75803 |
| 375 | VA0272 | 7 | 2.31644 |
| 376 | VA0560 | 7 | 4.02850 |
| 377 | VT0064 | 7 | 2.70566 |
| 378 | VT0065 | 7 | 3.08135 |
| 379 | VT0165 | 4 | 5.11503 |
| 380 | WA0267 | 7 | 4.14645 |
| 381 | WA0294 | 7 | 3.68488 |
| 382 | WA0419 | 7 | 3.31302 |
| 383 | WA0470 | 7 | 3.67651 |
| 384 | WI0067 | 3 | 2.31083 |
| 385 | WI0095 | 3 | 3.72702 |
| 386 | WI0106 | 3 | 3.49440 |
| 387 | WI0254 | 7 | 1.37271 |
| 388 | WI0519 | 7 | 2.05972 |
| 389 | WI0534 | 4 | 4.65324 |
| 390 | WI0566 | 4 | 1.91742 |
| 391 | WI0621 | 9 | 3.23533 |
| 392 | WI0650 | 4 | 2.63693 |
| 393 | WI0650 | 4 | 2.52889 |
| 394 | WI0801 | 9 | 2.36941 |
| 395 | WI0862 | 7 | 1.39102 |
| 396 | WV0004 | 3 | 3.45784 |
| 397 | WV0323 | 3 | 2.11516 |
| 398 | WV0437 | 3 | 4.98134 |
| 399 | WV0496 | 3 | 3.80171 |
| 400 | WV0736 | 3 | 1.81572 |
| 401 | WV1131 | 3 | 3.63895 |
| 402 | WY0010 | 3 | 2.38126 |
| 403 | WY0027 | 4 | 4.03957 |
| 404 | XX0002 | 9 | 3.16196 |
| 405 | XX0003 | 3 | 4.05259 |
| 406 | XX0004 | 7 | 2.29369 |
| 407 | XX0012 | 7 | 2.37129 |
| 408 | XX0012 | 3 | 2.38735 |
| 409 | XX0020 | 4 | 3.95114 |
| 410 | XX0021 | 7 | 1.94131 |
| 411 | XX0021 | 7 | 3.25086 |
| 412 | XX0022 | 7 | 4.15021 |
| 413 | XX0028 | 7 | 3.19613 |
| 414 | XX0030 | 9 | 6.67340 |
| 415 | XX0031 | 7 | 5.74900 |
| 416 | XX0033 | 7 | 3.02621 |
| 417 | XX0034 | 7 | 3.26894 |
| 418 | XX0035 | 7 | 2.26826 |
| 419 | XX0047 | 7 | 2.31391 |
| 420 | XX0050 | 4 | 3.57421 |



Cluster Summary

| Cluster | Frequency | RMS Std Deviation | Maximum Distance from Seed to Observation | Nearest Cluster | Centroid Distance |
|---|---|---|---|---|---|
| 1 | 3 | 1.0369 | 4.4624 | 9 | 11.1273 |
| 2 | 16 | 0.8729 | 6.3051 | 9 | 4.9897 |
| 3 | 94 | 0.6461 | 6.1657 | 7 | 3.0756 |
| 4 | 48 | 0.8397 | 6.6566 | 7 | 4.5758 |
| 5 | 4 | 0.7936 | 3.9151 | 8 | 6.4285 |
| 6 | 1 | . | 0 | 10 | 17.5859 |
| 7 | 165 | 0.6378 | 6.5730 | 3 | 3.0756 |
| 8 | 6 | 1.1040 | 5.1439 | 5 | 6.4285 |
| 9 | 82 | 0.7908 | 6.6734 | 7 | 3.6414 |
| 10 | 1 | . | 0 | 5 | 11.3238 |

Statistics for Variables

| Variable | Total STD | Within STD | R-Squared | RSQ/(1-RSQ) |
|---|---|---|---|---|
| S2_AGEHE | 1.000000 | 0.730052 | 0.478473 | 0.917446 |
| S2_ASUBS | 1.000000 | 0.498496 | 0.756840 | 3.112513 |
| S2_MILES | 1.000000 | 0.576107 | 0.675230 | 2.079106 |
| S2_MSDNU | 1.000000 | 0.975400 | 0.069031 | 0.074150 |
| S2_PABOV | 1.000000 | 0.908313 | 0.192689 | 0.238680 |
| S2_PARTM | 1.000000 | 0.987684 | 0.045434 | 0.047596 |
| S2_PASUB | 1.000000 | 0.606477 | 0.640086 | 1.778441 |
| S2_SUBSY | 1.000000 | 0.913422 | 0.183581 | 0.224862 |
| S2BURY | 1.000000 | 0.408446 | 0.836755 | 5.125778 |
| S5_ADDRS | 1.000000 | 0.293173 | 0.915896 | 10.890000 |
| S5_BURY | 1.000000 | 0.353713 | 0.877575 | 7.168248 |
| S5_HEADA | 1.000000 | 0.706311 | 0.511841 | 1.048513 |
| S5_MILES | 1.000000 | 0.453317 | 0.798917 | 3.973083 |
| S5_PABOV | 1.000000 | 0.938807 | 0.137572 | 0.159518 |
| S5_PASUB | 1.000000 | 0.602472 | 0.644824 | 1.815509 |
| S5_SUBFR | 1.000000 | 0.941286 | 0.133013 | 0.153419 |
| S6_FPAID | 1.000000 | 0.352667 | 0.878298 | 7.216763 |
| S7_FYACB | 1.000000 | 0.476148 | 0.778152 | 3.507600 |
| S7_FYARC | 1.000000 | 0.331929 | 0.892190 | 8.275565 |
| S7_TOTAC | 1.000000 | 0.768338 | 0.422336 | 0.731111 |
| S7_TDTV | 1.000000 | 0.978980 | 0.062185 | 0.066309 |
| S7_TLTV | 1.000000 | 0.919351 | 0.172948 | 0.209114 |
| S7_TSAT | 1.000000 | 0.833784 | 0.319737 | 0.470019 |
| OVER-ALL | 1.000000 | 0.717196 | 0.496678 | 0.986801 |

Pseudo F Statistic = 44.95
Approximate Expected Over-All R-Squared = 0.19124
Cubic Clustering Criterion = 149.164
WARNING: The two above values are invalid for correlated variables.

Cluster Means

| Cluster | S2_AGEHE | S2_ASUBS | S2_MILES | S2_MSONU | S2_PABOV | S2_PARTM | S2_PASUB | S2_SUBSY | S2BURY | S5_ADDRS | S5_BURY | S5_HEADA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.0630 | 0.0821 | 0.4094 | 0.4628 | 0.2253 | 0.3630 | 0.3677 | -0.8986 | -0.3877 | 0.6655 | -0.3796 | 0.1020 |
| 2 | -0.2804 | 3.3476 | 3.7045 | 0.4800 | -0.0529 | 0.3630 | 0.6414 | 0.1910 | -0.2027 | -0.0264 | -0.0036 | -0.1910 |
| 3 | 1.2695 | -0.2766 | -0.1175 | 0.2298 | 0.2938 | 0.2306 | -0.3638 | 0.7264 | -0.3562 | -0.1828 | -0.3476 | 1.3112 |
| 4 | -0.1641 | -0.2751 | -0.1725 | 0.3994 | -1.0830 | -0.0259 | -0.2289 | -0.1911 | 2.5114 | -0.1482 | 2.5657 | -0.1495 |
| 5 | -0.5968 | 3.2710 | 0.2107 | -0.2264 | 0.3247 | 0.3630 | 2.4911 | -1.0577 | -0.3877 | 5.7599 | -0.3796 | -0.5724 |
| 6 | 0.0198 | 4.4930 | 3.8762 | -0.6148 | 0.8842 | 0.3630 | 2.1433 | -1.4866 | 2.5730 | 9.9703 | 2.6283 | 0.0578 |
| 7 | -0.4648 | -0.3910 | -0.4103 | -0.1013 | 0.2544 | -0.0707 | -0.5875 | -0.2657 | -0.3339 | -0.2007 | -0.3796 | -0.4681 |
| 8 | -0.0668 | 1.4728 | 1.4304 | -0.0861 | -0.3968 | -0.1556 | 0.9570 | -0.5543 | -0.3877 | 2.3956 | -0.3796 | -0.0306 |
| 9 | -0.3301 | 0.2301 | 0.1392 | -0.3560 | -0.2091 | -0.1682 | 1.3497 | -0.0626 | -0.3155 | -0.0219 | -0.3062 | -0.4033 |
| 10 | -0.6292 | 4.6258 | 1.8095 | -0.6223 | 0.6999 | -2.7483 | 2.2358 | -1.4368 | -0.3877 | 10.2467 | -0.3796 | -0.6056 |

| Cluster | S5_MILES | S5_PABOV | S5_PASUB | S5_SUBFR | S6_FPAID | S7_FYACB | S7_FYARC | S7_TOTAC | S7_TDTV | S7_TLTV | S7_TSAT |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.0518 | 0.1562 | 0.3476 | -0.7957 | 1.1224 | 10.1227 | 3.2097 | 1.1803 | 0.6450 | -0.3128 | 1.7213 |
| 2 | 0.0419 | -0.0676 | 0.8122 | -0.1879 | -0.0385 | 0.0571 | -0.0682 | 0.6497 | -0.4782 | 0.7660 | 0.4173 |
| 3 | -0.1761 | 0.2968 | -0.3915 | 0.6370 | -0.1658 | -0.1137 | -0.1652 | 0.0669 | 0.3638 | -0.1701 | 0.1400 |
| 4 | -0.1347 | -0.9604 | -0.2521 | -0.0774 | -0.1203 | -0.0336 | -0.0943 | -0.2672 | -0.1162 | 0.0756 | -0.2721 |
| 5 | 1.3670 | 0.1761 | 2.4359 | -0.9998 | 3.8984 | -0.1937 | 0.9780 | 2.2143 | -0.7288 | 1.9310 | 1.0912 |
| 6 | 12.9650 | 0.0308 | 2.0544 | -1.1501 | 9.1931 | 3.3453 | 15.1852 | 3.2244 | 0.9421 | 2.1529 | 1.5560 |
| 7 | -0.1814 | 0.1477 | -0.5770 | -0.1930 | -0.1989 | -0.1722 | -0.1893 | -0.5980 | -0.1462 | -0.3218 | -0.5479 |
| 8 | 3.9160 | -0.3112 | 0.9091 | -0.3667 | 3.3777 | -0.1937 | 4.0651 | 1.3245 | -0.3946 | 0.8707 | 1.0809 |
| 9 | -0.0309 | -0.0610 | 1.3496 | -0.1277 | -0.0667 | 0.1002 | -0.0164 | 0.8436 | 0.0727 | 0.4642 | 0.7867 |
| 10 | 6.7248 | 0.5780 | 2.1440 | -1.1081 | 11.8440 | -0.1937 | 0.5965 | 2.0700 | -0.3946 | 0.9694 | 1.5560 |

Cluster Standard Deviations

| Cluster | S2_AGEHE | S2_ASUBS | S2_MILES | S2_MSONU | S2_PABOV | S2_PARTM | S2_PASUB | S2_SUBSY | S2BURY | S5_ADDRS | S5_BURY | S5_HEADA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.14988 | 0.33983 | 0.16482 | 1.66913 | 0.54462 | 0.00000 | 0.64290 | 0.83875 | 0.00000 | 0.74232 | 0.00000 | 0.15320 |
| 2 | 0.79976 | 1.49168 | 1.66957 | 1.20998 | 0.85036 | 0.00000 | 0.81107 | 0.45529 | 0.74019 | 0.34057 | 1.02739 | 0.81192 |
| 3 | 0.89445 | 0.26412 | 0.57115 | 1.17730 | 0.60466 | 0.63138 | 0.43640 | 0.67452 | 0.30538 | 0.06591 | 0.31024 | 0.92487 |
| 4 | 0.79333 | 0.26259 | 0.62587 | 1.29435 | 1.39324 | 1.03987 | 0.73560 | 1.00982 | 0.42735 | 0.24134 | 0.43415 | 0.79695 |
| 5 | 0.26760 | 1.34304 | 0.34822 | 0.26801 | 0.57105 | 0.00000 | 0.09327 | 0.71535 | 0.00000 | 0.84850 | 0.00000 | 0.27352 |
| 6 | . | . | . | . | . | . | . | . | . | . | . | . |
| 7 | 0.56655 | 0.03186 | 0.18711 | 0.84376 | 0.90114 | 1.08091 | 0.14165 | 0.99180 | 0.39679 | 0.01744 | 0.00000 | 0.54975 |
| 8 | 0.53624 | 1.69551 | 1.21678 | 1.21341 | 0.64605 | 1.27020 | 1.26140 | 0.51358 | 0.00000 | 2.13656 | 0.00000 | 0.54810 |
| 9 | 0.79040 | 0.69029 | 0.62810 | 0.61432 | 0.89819 | 1.17792 | 1.02857 | 1.01318 | 0.45953 | 0.22830 | 0.46684 | 0.64703 |
| 10 | . | . | . | . | . | . | . | . | . | . | . | . |



Cluster Standard Deviations

| Cluster | S5_MILES | S5_PABOV | S5_PASUB | S5_SUBFR | S6_FPAID | S7_FYACB | S7_FYARC | S7_TOTAC | S7_TDTV | S7_TLTV | S7_TSAT |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.27415 | 0.48411 | 0.63621 | 0.77065 | 1.56774 | 3.53335 | 0.95077 | 0.79795 | 0.92752 | 0.61593 | 0.87051 |
| 2 | 0.84477 | 1.03915 | 0.99167 | 1.01373 | 0.45751 | 0.77338 | 0.39573 | 0.60172 | 0.43713 | 0.83492 | 0.64988 |
| 3 | 0.19069 | 0.61774 | 0.41910 | 0.74034 | 0.12865 | 0.18686 | 0.07998 | 0.67871 | 1.14641 | 0.95258 | 0.82421 |
| 4 | 0.38927 | 1.39423 | 0.74684 | 1.30252 | 0.31596 | 0.47579 | 0.44881 | 0.85321 | 0.85051 | 0.86424 | 0.85274 |
| 5 | 0.48470 | 0.48401 | 0.00138 | 0.19651 | 2.46991 | 0.00000 | 1.79766 | 0.53015 | 0.42660 | 0.50532 | 0.46785 |
| 6 | . | . | . | . | . | . | . | . | . | . | . |
| 7 | 0.43854 | 0.95936 | 0.22151 | 0.91366 | 0.06891 | 0.10296 | 0.04688 | 0.77990 | 0.94947 | 0.83375 | 0.78980 |
| 8 | 2.06901 | 0.49518 | 1.23177 | 0.45042 | 1.63599 | 0.00000 | 1.54922 | 0.69449 | 0.00000 | 1.00194 | 0.59910 |
| 9 | 0.33786 | 0.89559 | 0.96273 | 0.98081 | 0.22890 | 0.73188 | 0.33144 | 0.82609 | 1.01678 | 1.08888 | 0.96273 |
| 10 | . | . | . | . | . | . | . | . | . | . | . |

Distance Between Cluster Means

| Cluster | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | . | 12.0919 | 11.6855 | 12.2620 | 13.2077 | 22.9686 | 11.7685 | 11.2596 | 11.1273 | 19.6810 |
| 2 | 12.0919 | . | 6.1965 | 6.9412 | 8.8159 | 25.1442 | 6.2739 | 7.8050 | 4.9897 | 17.9018 |
| 3 | 11.6855 | 6.1965 | . | 5.1430 | 10.4224 | 26.6296 | 3.0756 | 8.6139 | 3.9390 | 19.3621 |
| 4 | 12.2620 | 6.9412 | 5.1430 | . | 10.7949 | 26.1359 | 4.5758 | 9.1846 | 5.1496 | 19.5529 |
| 5 | 13.2077 | 8.8159 | 10.4224 | 10.7949 | . | 20.8073 | 10.2936 | 6.4285 | 8.4370 | 11.3238 |
| 6 | 22.9686 | 25.1442 | 26.6296 | 26.1359 | 20.8073 | . | 26.7787 | 18.8297 | 25.6912 | 17.5859 |
| 7 | 11.7685 | 6.2739 | 3.0756 | 4.5758 | 10.2936 | 26.7787 | . | 8.6498 | 3.6414 | 19.2696 |
| 8 | 11.2596 | 7.8050 | 8.6139 | 9.1846 | 6.4285 | 18.8297 | 8.6498 | . | 7.4149 | 13.3512 |
| 9 | 11.1273 | 4.9897 | 3.9390 | 5.1496 | 8.4370 | 25.6912 | 3.6414 | 7.4149 | . | 18.1786 |
| 10 | 19.6810 | 17.9018 | 19.3621 | 19.5529 | 11.3238 | 17.5859 | 19.2696 | 13.3512 | 18.1786 | . |

TABLE OF CLUSUNWT BY COMPTYPE

CLUSUNWT COMPTYPE

| Frequency<br>Percent<br>Row Pct<br>Col Pct | 0 | 1 | Total |
|---|---|---|---|
| 1 | 1<br>0.24<br>33.33<br>0.27 | 2<br>0.48<br>66.67<br>4.00 | 3<br>0.71 |
| 2 | 15<br>3.57<br>93.75<br>4.05 | 1<br>0.24<br>6.25<br>2.00 | 16<br>3.81 |
| 3 | 82<br>19.52<br>87.23<br>22.16 | 12<br>2.86<br>12.77<br>24.00 | 94<br>22.38 |
| 4 | 41<br>9.76<br>85.42<br>11.08 | 7<br>1.67<br>14.58<br>14.00 | 48<br>11.43 |
| 5 | 4<br>0.95<br>100.00<br>1.08 | 0<br>0.00<br>0.00<br>0.00 | 4<br>0.95 |
| Total | 370<br>88.10 | 50<br>11.90 | 420<br>100.00 |

(Continued)



TABLE OF CLUSUNWT BY COMPTYPE

CLUSUNWT COMPTYPE

| Frequency<br>Percent<br>Row Pct<br>Col Pct | 0 | 1 | Total |
|---|---|---|---|
| 6 | 1<br>0.24<br>100.00<br>0.27 | 0<br>0.00<br>0.00<br>0.00 | 1<br>0.24 |
| 7 | 152<br>36.19<br>92.12<br>41.08 | 13<br>3.10<br>7.88<br>26.00 | 165<br>39.29 |
| 8 | 6<br>1.43<br>100.00<br>1.62 | 0<br>0.00<br>0.00<br>0.00 | 6<br>1.43 |
| 9 | 67<br>15.95<br>81.71<br>18.11 | 15<br>3.57<br>18.29<br>30.00 | 82<br>19.52 |
| 10 | 1<br>0.24<br>100.00<br>0.27 | 0<br>0.00<br>0.00<br>0.00 | 1<br>0.24 |
| Total | 370<br>88.10 | 50<br>11.90 | 420<br>100.00 |

STATISTICS FOR TABLE OF CLUSUNWT BY COMPTYPE

| Statistic | DF | Value | Prob |
|---|---|---|---|
| Chi-Square | 9 | 16.823 | 0.052 |
| Likelihood Ratio Chi-Square | 9 | 14.594 | 0.103 |
| Mantel-Haenszel Chi-Square | 1 | 0.016 | 0.900 |
| Phi Coefficient | | 0.200 | |
| Contingency Coefficient | | 0.196 | |
| Cramer's V | | 0.200 | |

Sample Size = 420
WARNING: 50% of the cells have expected counts less than 5. Chi-Square may not be a valid test.



TABLE OF CLUSUNWT BY SIZE

| CLUSUNWT<br>Frequency<br>Percent<br>Row Pct<br>Col Pct | SIZE<br>0 | 1 | Total |
|---|---|---|---|
| 1 | 0<br>0.00<br>0.00<br>0.00 | 3<br>0.71<br>100.00<br>1.63 | 3<br>0.71 |
| 2 | 0<br>0.00<br>0.00<br>0.00 | 16<br>3.81<br>100.00<br>8.70 | 16<br>3.81 |
| 3 | 42<br>10.00<br>44.68<br>17.80 | 52<br>12.38<br>55.32<br>28.26 | 94<br>22.38 |
| 4 | 31<br>7.38<br>64.58<br>13.14 | 17<br>4.05<br>35.42<br>9.24 | 48<br>11.43 |
| 5 | 0<br>0.00<br>0.00<br>0.00 | 4<br>0.95<br>100.00<br>2.17 | 4<br>0.95 |
| Total | 236<br>56.19 | 184<br>43.81 | 420<br>100.00 |

(Continued)

TABLE OF CLUSUNWT BY SIZE

| CLUSUNWT (Frequency / Percent / Row Pct / Col Pct) | SIZE 0 | SIZE 1 | Total |
|---|---|---|---|
| 6 | 0<br>0.00<br>0.00<br>0.00 | 1<br>0.24<br>100.00<br>0.54 | 1<br>0.24 |
| 7 | 143<br>34.05<br>86.67<br>60.59 | 22<br>5.24<br>13.33<br>11.96 | 165<br>39.29 |
| 8 | 0<br>0.00<br>0.00<br>0.00 | 6<br>1.43<br>100.00<br>3.26 | 6<br>1.43 |
| 9 | 20<br>4.76<br>24.39<br>8.47 | 62<br>14.76<br>75.61<br>33.70 | 82<br>19.52 |
| 10 | 0<br>0.00<br>0.00<br>0.00 | 1<br>0.24<br>100.00<br>0.54 | 1<br>0.24 |
| Total | 236<br>56.19 | 184<br>43.81 | 420<br>100.00 |



STATISTICS FOR TABLE OF CLUSUNWT BY SIZE

| Statistic | DF | Value | Prob |
|---|---|---|---|
| Chi-Square | 9 | 142.133 | 0.000 |
| Likelihood Ratio Chi-Square | 9 | 163.454 | 0.000 |
| Mantel-Haenszel Chi-Square | 1 | 2.038 | 0.153 |
| Phi Coefficient | | 0.582 | |
| Contingency Coefficient | | 0.503 | |
| Cramer's V | | 0.582 | |

Sample Size = 420
WARNING: 50% of the cells have expected counts less than 5. Chi-Square may not be a valid test.

CLUSUNWT=1

| Average Revenue | System Size | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Large | | | | Total | | | |
| | N | Average | Std. Dev | Sum | N | Average | Std. Dev | Sum |
| Competition Type | | | | | | | | |
| Non-Competitive | 1 | 26.23 | . | 26.23 | 1 | 26.23 | . | 26.23 |
| Competitive | 2 | 18.32 | 0.90 | 36.65 | 2 | 18.32 | 0.90 | 36.65 |
| Total | 3 | 20.96 | 4.61 | 62.88 | 3 | 20.96 | 4.61 | 62.88 |



CLUSUNWT=2

| Average Revenue | System Size | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Large | | | | Total | | | |
| | N | Average | Std. Dev | Sum | N | Average | Std. Dev | Sum |
| Competition Type | | | | | | | | |
| Non-Competitive | 15 | 22.75 | 3.75 | 341.19 | 15 | 22.75 | 3.75 | 341.19 |
| Competitive | 1 | 24.74 | . | 24.74 | 1 | 24.74 | . | 24.74 |
| Total | 16 | 22.87 | 3.66 | 365.93 | 16 | 22.87 | 3.66 | 365.93 |

Tabulation of ARIEPS by cluster by size by comptype
Unweighted data

CLUSUNWT=3

| Average Revenue | System Size | | | | | | | | Total | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Small | | | | Large | | | | | | | |
| | N | Average | Std. Dev | Sum | N | Average | Std. Dev | Sum | N | Average | Std. Dev | Sum |
| Competition Type | | | | | | | | | | | | |
| Non-Competitive | 35 | 20.11 | 3.97 | 703.83 | 47 | 22.44 | 2.40 | 1054.56 | 82 | 21.44 | 3.35 | 1758.39 |
| Competitive | 7 | 13.28 | 2.80 | 92.98 | 5 | 22.86 | 5.05 | 114.29 | 12 | 17.27 | 6.15 | 207.27 |
| Total | 42 | 18.97 | 4.56 | 796.81 | 52 | 22.48 | 2.69 | 1168.85 | 94 | 20.91 | 4.03 | 1965.66 |



Tabulation of ARIEPS by cluster by size by comptype
Unweighted data

CLUSUNWT=4

| Average Revenue | System Size | | | | | | | | Total | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Small | | | | Large | | | | | | | |
| | N | Average | Std. Dev | Sum | N | Average | Std. Dev | Sum | N | Average | Std. Dev | Sum |
| Competition Type | | | | | | | | | | | | |
| Non-Competitive | 26 | 21.11 | 3.00 | 548.85 | 15 | 23.77 | 5.84 | 356.62 | 41 | 22.08 | 4.39 | 905.47 |
| Competitive | 5 | 17.70 | 2.23 | 88.48 | 2 | 22.00 | 4.89 | 43.99 | 7 | 18.92 | 3.42 | 132.47 |
| Total | 31 | 20.56 | 3.13 | 637.33 | 17 | 23.57 | 5.63 | 400.61 | 48 | 21.62 | 4.37 | 1037.94 |

CLUSUNWT=5

| Average Revenue | System Size | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Large | | | | Total | | | |
| | N | Average | Std. Dev | Sum | N | Average | Std. Dev | Sum |
| Competition Type | | | | | | | | |
| Non-Competitive | 4 | 24.23 | 5.76 | 96.92 | 4 | 24.23 | 5.76 | 96.92 |
| Total | 4 | 24.23 | 5.76 | 96.92 | 4 | 24.23 | 5.76 | 96.92 |



CLUSUNWT=6

| Average Revenue | System Size | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Large | | | | Total | | | |
| | N | Average | Std. Dev | Sum | N | Average | Std. Dev | Sum |
| Competition Type | | | | | | | | |
| Non-Competitive | 1 | 27.71 | . | 27.71 | 1 | 27.71 | . | 27.71 |
| Total | 1 | 27.71 | . | 27.71 | 1 | 27.71 | . | 27.71 |

CLUSUNWT=7

| Average Revenue | System Size | | | | | | | | Total | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Small | | | | Large | | | | | | | |
| | N | Average | Std. Dev | Sum | N | Average | Std. Dev | Sum | N | Average | Std. Dev | Sum |
| Competition Type | | | | | | | | | | | | |
| Non-Competitive | 132 | 21.27 | 3.50 | 2807.26 | 20 | 21.02 | 4.52 | 420.50 | 152 | 21.24 | 3.63 | 3227.76 |
| Competitive | 11 | 15.80 | 3.24 | 173.84 | 2 | 17.62 | 6.57 | 35.23 | 13 | 16.08 | 3.58 | 209.07 |
| Total | 143 | 20.85 | 3.76 | 2981.10 | 22 | 20.71 | 4.65 | 455.73 | 165 | 20.83 | 3.88 | 3436.83 |



CLUSUNWT=8

| Average Revenue | System Size | | | | Total | | | |
|---|---|---|---|---|---|---|---|---|
| | Large | | | | | | | |
| | N | Average | Std. Dev | Sum | N | Average | Std. Dev | Sum |
| Competition Type | | | | | | | | |
| Non-Competitive | 6 | 22.86 | 1.45 | 137.18 | 6 | 22.86 | 1.45 | 137.18 |
| Total | 6 | 22.86 | 1.45 | 137.18 | 6 | 22.86 | 1.45 | 137.18 |

CLUSUNWT=9

| Average Revenue | System Size | | | | | | | | Total | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Small | | | | Large | | | | | | | |
| | N | Average | Std. Dev | Sum | N | Average | Std. Dev | Sum | N | Average | Std. Dev | Sum |
| Competition Type | | | | | | | | | | | | |
| Non-Competitive | 14 | 21.85 | 6.11 | 305.95 | 53 | 22.62 | 3.42 | 1198.93 | 67 | 22.46 | 4.08 | 1504.88 |
| Competitive | 6 | 15.15 | 1.99 | 90.92 | 9 | 23.28 | 2.81 | 209.56 | 15 | 20.03 | 4.79 | 300.48 |
| Total | 20 | 19.84 | 6.04 | 396.87 | 62 | 22.72 | 3.32 | 1408.49 | 82 | 22.02 | 4.29 | 1805.36 |



CLUSUNWT=10

| Average Revenue | System Size | | | | Total | | | |
|---|---|---|---|---|---|---|---|---|
| | Large | | | | | | | |
| | N | Average | Std. Dev | Sum | N | Average | Std. Dev | Sum |
| Competition Type | | | | | | | | |
| Non-Competitive | 1 | 20.65 | . | 20.65 | 1 | 20.65 | . | 20.65 |
| Total | 1 | 20.65 | . | 20.65 | 1 | 20.65 | . | 20.65 |

FASTCLUS Procedure

Replace=FULL Radius=0 Maxclusters=10 Maxiter=10 Converge=0.02

Initial Seeds

| Cluster | S2_AGEHE | S2_ASUBS | S2_MILES | S2_MSONU | S2_PABOV | S2_PARTM | S2_PASUB | S2_SUBSY | S2BURY | S5_ADDRS | S5_BURY | S5_HEADA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -0.1100 | -0.2566 | 0.3171 | -0.4567 | -0.0697 | 0.3630 | -0.3716 | -0.0161 | -0.3877 | 0.0892 | -0.3796 | -0.0749 |
| 2 | -0.4994 | 6.5709 | 2.0683 | 2.3894 | -1.3780 | 0.3630 | 2.1588 | -0.3787 | 2.5730 | -0.1951 | 2.6283 | -0.4729 |
| 3 | 3.7841 | -0.3972 | -0.5182 | -0.6223 | 0.8538 | -2.7483 | -0.6207 | 2.0995 | -0.3877 | -0.2033 | -0.3796 | 3.9054 |
| 4 | -0.4994 | -0.2525 | 0.1571 | -0.6223 | 0.0842 | -2.7483 | 0.2407 | 0.1184 | 2.5730 | -0.1843 | 2.6283 | -0.7382 |
| 5 | -0.3696 | 2.8581 | -0.0563 | 0.0683 | -0.5315 | 0.3630 | 2.5378 | -1.3148 | -0.3877 | 6.5691 | -0.3796 | -0.3402 |
| 6 | 0.0198 | 4.4930 | 3.8762 | -0.6148 | 0.0842 | 0.3630 | 2.1433 | -1.4866 | 2.5730 | 9.9703 | 2.6283 | 0.0578 |
| 7 | -0.3696 | -0.3972 | -0.4501 | -0.5822 | 0.8538 | 0.3630 | -0.6207 | -1.3724 | 2.5730 | -0.2033 | 2.6283 | -0.3402 |
| 8 | 0.2794 | 0.1430 | 1.8152 | -0.5646 | -0.5315 | 0.3630 | -0.2445 | -0.4310 | -0.3877 | 0.9171 | -0.3796 | 0.3232 |
| 9 | -0.6292 | -0.3928 | -0.5148 | -0.6223 | -2.9941 | -2.7483 | 2.5378 | -1.7831 | -0.3877 | -0.1941 | -0.3796 | -0.6056 |
| 10 | -0.6292 | 4.6258 | 1.8095 | -0.6223 | 0.6999 | -2.7483 | 2.2358 | -1.4368 | -0.3877 | 10.2467 | -0.3796 | -0.6056 |

| Cluster | S5_MILES | S5_PABOV | S5_PASUB | S5_SUBFR | S6_FPAID | S7_FYACB | S7_FYARC | S7_TOTAC | S7_TDTV | S7_TLTV | S7_TSAT |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.2185 | -0.1060 | -0.3818 | 0.0894 | 0.7463 | 13.7642 | 3.8869 | 0.3386 | 0.9421 | -0.8059 | 0.8124 |
| 2 | -0.3036 | 0.0308 | 0.1036 | -0.5673 | -0.2232 | -0.1937 | -0.2050 | 1.4929 | -1.2858 | 0.6735 | 1.5560 |
| 3 | -0.3036 | 0.7148 | -0.6232 | 1.8727 | -0.2232 | -0.1937 | -0.2050 | -1.2486 | 2.2788 | -1.9895 | -1.4185 |
| 4 | -0.2385 | 0.3728 | -0.0724 | 5.4706 | -0.2124 | -0.1915 | -0.1859 | -0.5993 | -0.8402 | -0.2142 | -0.5509 |
| 5 | 1.0911 | -0.5165 | 2.4366 | -1.0052 | 6.5355 | -0.1937 | -0.2050 | 2.9358 | -0.8402 | 2.1529 | 1.5560 |
| 6 | 12.9650 | 0.0308 | 2.0544 | -1.1501 | 9.1931 | 3.3453 | 15.1852 | 3.2244 | 0.9421 | 2.1529 | 1.5560 |
| 7 | -0.1322 | 0.7148 | -0.6232 | -1.8209 | -0.2201 | -0.1850 | -0.1982 | -0.9600 | 0.4965 | 2.4488 | -2.2861 |
| 8 | 6.6734 | -0.5165 | -0.2589 | -0.2605 | 3.4990 | -0.1937 | 4.2310 | 0.4107 | -0.3946 | 0.0817 | 0.4406 |
| 9 | -0.2933 | -2.7055 | 2.4366 | -1.4000 | -0.2185 | -0.1937 | -0.2050 | -1.3929 | 0.0509 | -0.2142 | -1.6664 |
| 10 | 6.7248 | 0.5780 | 2.1440 | -1.1081 | 11.8440 | -0.1937 | 0.5965 | 2.0700 | -0.3946 | 0.9694 | 1.5560 |

Minimum Distance Between Seeds = 8.911756



| Iteration | Change in Cluster Seeds 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 4.46244 | 6.112379 | 5.576217 | 5.497728 | 3.404975 | 0 | 5.30124 | 4.01064 | 5.326445 | 0 |
| 2 | 0 | 0.60771 | 0.364399 | 0.923298 | 0 | 0 | 0.586393 | 1.603746 | 1.002061 | 0 |
| 3 | 0 | 0.377205 | 0.214839 | 1.344443 | 0 | 0 | 0.468188 | 0 | 0.547334 | 0 |
| 4 | 0 | 0 | 0.184751 | 0.938356 | 0 | 0 | 0.275254 | 0 | 0.197215 | 0 |
| 5 | 0 | 0.328612 | 0.136137 | 0.55039 | 0 | 0 | 0.175634 | 0 | 0.090065 | 0 |
| 6 | 0 | 0.513486 | 0.103448 | 0.372034 | 0 | 0 | 0.102567 | 0 | 0.114458 | 0 |
| 7 | 0 | 0 | 0.039067 | 0.194629 | 0 | 0 | 0.066865 | 0 | 0 | 0 |
| 8 | 0 | 0 | 0 | 0.206294 | 0 | 0 | 0.063281 | 0 | 0 | 0 |
| 9 | 0 | 0 | 0 | 0.310112 | 0 | 0 | 0.087638 | 0 | 0 | 0 |
| 10 | 0 | 0 | 0 | 0.152292 | 0 | 0 | 0.027943 | 0 | 0.05581 | 0 |

Cluster Listing

| Obs | CP_COMMU | Cluster | Distance from Seed |
|---|---|---|---|
| 1 | AL0012 | 1 | 4.46244 |
| 2 | AL0127 | 3 | 3.14498 |
| 3 | AL0191 | 3 | 2.27852 |
| 4 | AL0371 | 1 | 4.29289 |
| 5 | AL0380 | 9 | 3.67024 |
| 6 | AL0380 | 9 | 3.64070 |
| 7 | AL0432 | 9 | 3.38774 |
| 8 | AL0516 | 7 | 2.55771 |
| 9 | AL0588 | 7 | 2.72717 |
| 10 | AL0610 | 7 | 1.97029 |
| 11 | AL0626 | 9 | 6.29184 |
| 12 | AR0026 | 3 | 2.67115 |
| 13 | AR0121 | 3 | 3.22462 |
| 14 | AR0212 | 4 | 3.49802 |
| 15 | AR0394 | 7 | 1.17022 |
| 16 | AR0449 | 7 | 2.44015 |
| 17 | AR0450 | 7 | 2.45725 |
| 18 | AR0519 | 7 | 1.58352 |
| 19 | AR0535 | 7 | 2.50823 |
| 20 | AR0541 | 7 | 3.33155 |
| 21 | AR0576 | 9 | 3.75199 |
| 22 | AR0619 | 7 | 1.48481 |
| 23 | AZ0031 | 7 | 4.47057 |
| 24 | AZ0053 | 2 | 5.22913 |
| 25 | AZ0098 | 7 | 2.57813 |
| 26 | AZ0111 | 9 | 2.77884 |
| 27 | AZ0181 | 9 | 3.16979 |
| 28 | AZ0181 | 9 | 3.32048 |
| 29 | AZ0210 | 7 | 3.35277 |
| 30 | AZ0268 | 4 | 4.00414 |
| 31 | AZ0282 | 7 | 2.94781 |
| 32 | AZ0293 | 7 | 4.98093 |
| 33 | AZ0303 | 9 | 4.98332 |
| 34 | CA0200 | 9 | 3.69813 |
| 35 | CA0357 | 3 | 3.24949 |
| 36 | CA0531 | 5 | 3.91513 |
| 37 | CA0589 | 8 | 5.10719 |
| 38 | CA0654 | 9 | 3.59031 |

| Obs | CP_COMMU | Cluster | Distance from Seed |
|---|---|---|---|
| 39 | CA0751 | 7 | 4.85347 |
| 40 | CA0850 | 4 | 3.52551 |
| 41 | CA0933 | 3 | 3.01169 |
| 42 | CA1021 | 7 | 4.47990 |
| 43 | CA1119 | 9 | 3.05384 |
| 44 | CA1120 | 9 | 3.49673 |
| 45 | CA1127 | 9 | 3.88919 |
| 46 | CA1276 | 9 | 5.14250 |
| 47 | CA1294 | 9 | 3.37298 |
| 48 | CA1294 | 9 | 3.70575 |
| 49 | CA1401 | 7 | 3.57007 |
| 50 | CA1420 | 9 | 3.61773 |
| 51 | CA1420 | 9 | 3.52176 |
| 52 | CO0133 | 9 | 3.37788 |
| 53 | CO0197 | 2 | 6.30507 |
| 54 | CO0218 | 4 | 2.24553 |
| 55 | CO0221 | 7 | 2.31182 |
| 56 | CO0254 | 8 | 4.90306 |
| 57 | CO0330 | 4 | 2.76209 |
| 58 | CO0393 | 7 | 2.36274 |
| 59 | DE0082 | 7 | 3.29546 |
| 60 | DE0082 | 7 | 3.52223 |
| 61 | FL0038 | 3 | 2.60615 |
| 62 | FL0110 | 9 | 3.02724 |
| 63 | FL0118 | 3 | 2.28968 |
| 64 | FL0136 | 3 | 2.93948 |
| 65 | FL0178 | 9 | 2.56603 |
| 66 | FL0322 | 2 | 4.37329 |
| 67 | FL0375 | 9 | 2.62793 |
| 68 | FL0435 | 3 | 3.20203 |
| 69 | FL0548 | 4 | 2.89052 |
| 70 | FL0653 | 1 | 3.33367 |
| 71 | FL0679 | 7 | 3.64690 |
| 72 | FL0749 | 4 | 4.53964 |
| 73 | FL0749 | 4 | 6.43228 |
| 74 | FL0843 | 9 | 2.55938 |
| 75 | FL0851 | 9 | 4.63693 |
| 76 | FL0851 | 9 | 4.10454 |
| 77 | FL0894 | 9 | 3.76074 |
| 78 | FL0996 | 9 | 3.44639 |
| 79 | GA0025 | 3 | 4.00909 |
| 80 | GA0025 | 3 | 3.92284 |
| 81 | GA0033 | 9 | 4.06599 |
| 82 | GA0063 | 9 | 3.21701 |
| 83 | GA0199 | 3 | 2.67079 |
| 84 | GA0679 | 4 | 4.46430 |
| 85 | GA0715 | 3 | 1.23027 |
| 86 | GA0753 | 9 | 5.81932 |
| 87 | GA0757 | 4 | 6.01961 |
| 88 | GA0864 | 7 | 2.56635 |
| 89 | GA0881 | 4 | 3.18769 |
| 90 | HI0074 | 7 | 2.39260 |
| 91 | IA0294 | 9 | 2.29253 |
| 92 | IA0525 | 3 | 2.68035 |
| 93 | IA0741 | 3 | 4.01137 |



| Obs | CP_COMMU | Cluster | Distance from Seed |
|---|---|---|---|
| 94 | IA0787 | 3 | 2.57012 |
| 95 | ID0009 | 9 | 3.42543 |
| 96 | ID0206 | 7 | 3.89398 |
| 97 | IL0087 | 3 | 1.45398 |
| 98 | IL0140 | 4 | 4.71850 |
| 99 | IL0448 | 3 | 2.13323 |
| 100 | IL0554 | 4 | 4.88447 |
| 101 | IL0601 | 9 | 2.49296 |
| 102 | IL0694 | 7 | 2.28462 |
| 103 | IL0710 | 7 | 1.82836 |
| 104 | IL0883 | 7 | 4.58267 |
| 105 | IL0931 | 7 | 1.65740 |
| 106 | IL0984 | 5 | 3.64461 |
| 107 | IL0990 | 9 | 4.89408 |
| 108 | IL1031 | 7 | 3.48864 |
| 109 | IL1033 | 7 | 3.27894 |
| 110 | IL1060 | 7 | 4.83648 |
| 111 | IL1077 | 9 | 3.92345 |
| 112 | IL1078 | 9 | 4.14895 |
| 113 | IL1134 | 9 | 3.31696 |
| 114 | IL1264 | 7 | 2.68101 |
| 115 | IL1303 | 7 | 4.73218 |
| 116 | IL1363 | 9 | 6.42507 |
| 117 | IL1382 | 7 | 1.52732 |
| 118 | IL1459 | 4 | 2.92696 |
| 119 | IL1474 | 4 | 4.75749 |
| 120 | IN0115 | 3 | 2.11515 |
| 121 | IN0377 | 3 | 2.02640 |
| 122 | IN0494 | 9 | 3.08238 |
| 123 | IN0500 | 3 | 2.19892 |
| 124 | IN0512 | 4 | 2.68806 |
| 125 | IN0531 | 7 | 2.03182 |
| 126 | IN0531 | 7 | 2.02983 |
| 127 | IN0543 | 7 | 1.21711 |
| 128 | IN0603 | 7 | 2.25349 |
| 129 | IN0695 | 7 | 1.95579 |
| 130 | IN0828 | 4 | 3.05364 |
| 131 | KS0030 | 3 | 4.06109 |
| 132 | KS0103 | 3 | 1.97691 |
| 133 | KS0179 | 7 | 2.32149 |
| 134 | KS0318 | 7 | 3.31096 |
| 135 | KS0398 | 7 | 4.01518 |
| 136 | KS0525 | 4 | 4.24646 |
| 137 | KS0555 | 7 | 1.76718 |
| 138 | KY0007 | 3 | 6.16568 |
| 139 | KY0154 | 9 | 4.17555 |
| 140 | KY0380 | 2 | 3.76965 |
| 141 | KY0392 | 7 | 2.07690 |
| 142 | KY0542 | 9 | 3.25433 |
| 143 | KY0548 | 3 | 2.21827 |
| 144 | KY0625 | 7 | 2.17154 |
| 145 | KY0867 | 4 | 4.07858 |
| 146 | KY0909 | 3 | 2.53333 |
| 147 | KY1009 | 9 | 4.10420 |
| 148 | LA0085 | 3 | 1.99010 |

| Obs | CP_COMMU | Cluster | Distance from Seed |
|---|---|---|---|
| 149 | LA0447 | 3 | 3.14212 |
| 150 | LA0515 | 7 | 4.76599 |
| 151 | LA0535 | 7 | 3.85633 |
| 152 | MA0125 | 9 | 3.19905 |
| 153 | MA0237 | 9 | 2.25835 |
| 154 | MD0009 | 9 | 4.17733 |
| 155 | MD0009 | 9 | 4.45707 |
| 156 | MD0241 | 7 | 3.42108 |
| 157 | MD0322 | 7 | 3.29051 |
| 158 | MD0354 | 3 | 2.51770 |
| 159 | MD0354 | 3 | 2.41863 |
| 160 | ME0035 | 3 | 3.21649 |
| 161 | ME0096 | 3 | 1.47107 |
| 162 | ME0267 | 7 | 2.20283 |
| 163 | MI0011 | 4 | 3.47767 |
| 164 | MI0409 | 9 | 4.27704 |
| 165 | MI0471 | 7 | 2.91549 |
| 166 | MI0658 | 3 | 2.82911 |
| 167 | MI0749 | 7 | 2.04881 |
| 168 | MI0793 | 7 | 2.02693 |
| 169 | MI0844 | 7 | 2.60174 |
| 170 | MI0869 | 9 | 1.39878 |
| 171 | MI0948 | 7 | 2.37903 |
| 172 | MI1005 | 7 | 3.75873 |
| 173 | MI1039 | 10 | 0.00000 |
| 174 | MI1088 | 7 | 2.09049 |
| 175 | MI1167 | 4 | 4.64615 |
| 176 | MI1298 | 7 | 1.81151 |
| 177 | MI1343 | 7 | 2.32183 |
| 178 | MI1346 | 4 | 3.32043 |
| 179 | MI1346 | 4 | 3.47458 |
| 180 | MI1557 | 4 | 3.38314 |
| 181 | MI1673 | 7 | 2.20699 |
| 182 | MI1753 | 7 | 2.32030 |
| 183 | MI1781 | 7 | 2.66629 |
| 184 | MN0049 | 3 | 2.80376 |
| 185 | MN0058 | 3 | 2.45652 |
| 186 | MN0115 | 7 | 2.87710 |
| 187 | MN0182 | 7 | 3.34716 |
| 188 | MN0319 | 8 | 5.14393 |
| 189 | MN0684 | 7 | 2.76271 |
| 190 | MN0781 | 7 | 3.10353 |
| 191 | MN0882 | 7 | 3.19452 |
| 192 | MN0839 | 9 | 5.29523 |
| 193 | MN0891 | 9 | 5.34118 |
| 194 | MN0899 | 7 | 2.20800 |
| 195 | MO0127 | 3 | 1.96268 |
| 196 | MO0132 | 9 | 3.58290 |
| 197 | MO0138 | 3 | 2.13099 |
| 198 | MO0261 | 9 | 3.86490 |
| 199 | MO0322 | 9 | 2.29598 |
| 200 | MO0322 | 9 | 2.46356 |
| 201 | MO0373 | 7 | 1.87996 |
| 202 | MO0413 | 7 | 1.72439 |
| 203 | MO0495 | 4 | 3.43549 |



| Obs | CP_COMMU | Cluster | Distance from Seed |
|---|---|---|---|
| 204 | MO0540 | 7 | 2.09459 |
| 205 | MO0719 | 7 | 3.66920 |
| 206 | MO0720 | 7 | 3.85985 |
| 207 | MO0919 | 7 | 2.51244 |
| 208 | MO0946 | 7 | 1.10227 |
| 209 | MS0040 | 9 | 2.73640 |
| 210 | MS0216 | 7 | 2.21862 |
| 211 | MS0245 | 4 | 3.28588 |
| 212 | MS0259 | 9 | 4.73021 |
| 213 | MS0324 | 7 | 1.96449 |
| 214 | MS0444 | 9 | 5.59393 |
| 215 | MT0007 | 3 | 3.51809 |
| 216 | MT0052 | 3 | 3.39447 |
| 217 | MT0146 | 7 | 6.20163 |
| 218 | NC0361 | 7 | 2.86260 |
| 219 | NC0393 | 7 | 4.08954 |
| 220 | NC0530 | 7 | 2.98663 |
| 221 | NC0671 | 4 | 2.75639 |
| 222 | NC0682 | 7 | 4.43984 |
| 223 | NC0752 | 3 | 2.92982 |
| 224 | NC0781 | 7 | 3.24075 |
| 225 | NC0793 | 7 | 2.46546 |
| 226 | NC0896 | 9 | 3.78787 |
| 227 | NE0057 | 3 | 2.69539 |
| 228 | NE0111 | 9 | 3.20575 |
| 229 | NE0133 | 7 | 2.10327 |
| 230 | NE0320 | 7 | 4.92836 |
| 231 | NH0019 | 7 | 3.50530 |
| 232 | NJ0027 | 4 | 5.68254 |
| 233 | NJ0133 | 9 | 3.26802 |
| 234 | NJ0142 | 9 | 3.14346 |
| 235 | NJ0369 | 2 | 2.79517 |
| 236 | NJ0373 | 3 | 2.90772 |
| 237 | NJ0373 | 3 | 2.96699 |
| 238 | NJ0404 | 2 | 3.42270 |
| 239 | NJ0404 | 2 | 4.45935 |
| 240 | NJ0564 | 9 | 1.82696 |
| 241 | NY0011 | 3 | 2.68621 |
| 242 | NY0025 | 3 | 1.88578 |
| 243 | NY0067 | 9 | 3.39001 |
| 244 | NY0085 | 3 | 2.04982 |
| 245 | NY0272 | 9 | 3.42886 |
| 246 | NY0596 | 3 | 2.79410 |
| 247 | NY0650 | 3 | 1.94156 |
| 248 | NY0740 | 2 | 4.83547 |
| 249 | NY0816 | 2 | 3.77148 |
| 250 | NY0839 | 2 | 3.55373 |
| 251 | NY0894 | 9 | 3.12550 |
| 252 | NY1043 | 2 | 3.86223 |
| 253 | NY1085 | 2 | 2.70835 |
| 254 | NY1248 | 3 | 1.76281 |
| 255 | NY1248 | 3 | 2.47282 |
| 256 | NY1280 | 5 | 3.40498 |
| 257 | NY1284 | 9 | 2.49098 |
| 258 | NY1364 | 9 | 3.61488 |

| Obs | CP_COMMU | Cluster | Distance from Seed |
|---|---|---|---|
| 259 | NY1414 | 5 | 1.80428 |
| 260 | OH0264 | 9 | 2.53312 |
| 261 | OH0264 | 9 | 2.91524 |
| 262 | OH0398 | 7 | 4.13690 |
| 263 | OH0590 | 7 | 2.22209 |
| 264 | OH0660 | 7 | 1.47446 |
| 265 | OH0755 | 3 | 1.72215 |
| 266 | OH0800 | 9 | 2.23648 |
| 267 | OH0891 | 4 | 3.84992 |
| 268 | OH1092 | 4 | 3.17662 |
| 269 | OH1243 | 3 | 1.75476 |
| 270 | OH1529 | 7 | 1.35240 |
| 271 | OH1603 | 9 | 2.63854 |
| 272 | OH1644 | 3 | 1.18864 |
| 273 | OH1662 | 2 | 3.62505 |
| 274 | OH1692 | 3 | 2.81549 |
| 275 | OH1710 | 7 | 1.53920 |
| 276 | OH1721 | 9 | 4.26178 |
| 277 | OH1730 | 3 | 1.83084 |
| 278 | OH1730 | 3 | 2.00670 |
| 279 | OH1782 | 7 | 1.50971 |
| 280 | OH1884 | 9 | 2.35293 |
| 281 | OH1980 | 7 | 3.14367 |
| 282 | OK0177 | 7 | 3.59478 |
| 283 | OK0187 | 8 | 4.15371 |
| 284 | OK0207 | 3 | 1.92092 |
| 285 | OK0250 | 4 | 3.97652 |
| 286 | OK0282 | 7 | 1.28714 |
| 287 | OK0337 | 7 | 1.41581 |
| 288 | OK0368 | 7 | 2.03033 |
| 289 | OK0391 | 4 | 4.61268 |
| 290 | OK0431 | 7 | 2.15630 |
| 291 | OK0475 | 7 | 3.11764 |
| 292 | OK0476 | 7 | 2.34369 |
| 293 | OK0521 | 7 | 2.33183 |
| 294 | OK0526 | 7 | 1.93773 |
| 295 | OR0146 | 7 | 3.40978 |
| 296 | OR0219 | 7 | 2.75417 |
| 297 | OR0228 | 3 | 3.03851 |
| 298 | OR0258 | 3 | 5.27580 |
| 299 | PA0130 | 3 | 3.48469 |
| 300 | PA0200 | 7 | 2.48086 |
| 301 | PA0321 | 3 | 2.59979 |
| 302 | PA0324 | 3 | 2.66853 |
| 303 | PA0404 | 7 | 4.27152 |
| 304 | PA0406 | 7 | 4.49913 |
| 305 | PA0411 | 3 | 1.40663 |
| 306 | PA0465 | 3 | 3.11794 |
| 307 | PA0478 | 3 | 5.93355 |
| 308 | PA0478 | 3 | 5.81703 |
| 309 | PA0552 | 3 | 5.22781 |
| 310 | PA0552 | 9 | 5.60012 |
| 311 | PA0959 | 3 | 3.55843 |
| 312 | PA1106 | 7 | 3.42758 |
| 313 | PA1582 | 3 | 3.00274 |



| Obs | CP_COMMU | Cluster | Distance from Seed |
|---|---|---|---|
| 314 | PA1900 | 3 | 2.65942 |
| 315 | PA2193 | 7 | 2.84932 |
| 316 | PA2237 | 3 | 3.03798 |
| 317 | PA2286 | 4 | 6.65658 |
| 318 | PA2296 | 9 | 3.64748 |
| 319 | PA2469 | 7 | 4.04909 |
| 320 | PA2470 | 7 | 4.04706 |
| 321 | PA2629 | 7 | 3.50569 |
| 322 | PA2745 | 3 | 5.62579 |
| 323 | PA2821 | 3 | 2.84063 |
| 324 | PA2822 | 3 | 2.83118 |
| 325 | PA2966 | 7 | 3.24544 |
| 326 | PA3097 | 3 | 2.77569 |
| 327 | RI0016 | 2 | 4.08852 |
| 328 | SC0102 | 9 | 2.11797 |
| 329 | SC0384 | 7 | 4.08600 |
| 330 | SC0420 | 9 | 5.20927 |
| 331 | SC0473 | 7 | 1.21345 |
| 332 | SC0527 | 7 | 4.53494 |
| 333 | SC0532 | 7 | 3.51159 |
| 334 | TN0326 | 4 | 4.83184 |
| 335 | TN0371 | 3 | 2.41701 |
| 336 | TN0450 | 7 | 3.35645 |
| 337 | TN0524 | 7 | 1.64921 |
| 338 | TX0011 | 3 | 1.97246 |
| 339 | TX0021 | 3 | 3.13961 |
| 340 | TX0074 | 7 | 3.83241 |
| 341 | TX0204 | 4 | 3.89261 |
| 342 | TX0503 | 3 | 5.52956 |
| 343 | TX0505 | 2 | 3.35328 |
| 344 | TX0510 | 4 | 3.21271 |
| 345 | TX0611 | 3 | 1.28537 |
| 346 | TX0696 | 7 | 6.57296 |
| 347 | TX0698 | 7 | 4.30779 |
| 348 | TX0701 | 7 | 3.60728 |
| 349 | TX0762 | 6 | 0.00000 |
| 350 | TX0782 | 2 | 3.07059 |
| 351 | TX0791 | 7 | 3.03676 |
| 352 | TX0805 | 8 | 4.86771 |
| 353 | TX0894 | 7 | 3.04199 |
| 354 | TX0895 | 7 | 2.95633 |
| 355 | TX0929 | 7 | 1.81281 |
| 356 | TX1130 | 7 | 2.01391 |
| 357 | TX1135 | 7 | 1.82540 |
| 358 | TX1366 | 7 | 2.33378 |
| 359 | TX1396 | 7 | 3.38564 |
| 360 | TX1410 | 7 | 2.53163 |
| 361 | TX1421 | 7 | 3.06235 |
| 362 | TX1551 | 7 | 2.17092 |
| 363 | TX1597 | 7 | 2.24592 |
| 364 | TX1683 | 4 | 3.63396 |
| 365 | TX1704 | 7 | 3.34851 |
| 366 | TX1811 | 7 | 1.59014 |
| 367 | TX1830 | 7 | 2.18185 |
| 368 | TX2031 | 7 | 2.08068 |

| Obs | CP_COMMU | Cluster | Distance from Seed |
|---|---|---|---|
| 369 | TX2050 | 3 | 3.75286 |
| 370 | TX2074 | 4 | 4.04369 |
| 371 | UT0097 | 4 | 2.82606 |
| 372 | UT0098 | 4 | 3.33605 |
| 373 | UT0193 | 7 | 1.91161 |
| 374 | VA0031 | 8 | 4.75803 |
| 375 | VA0272 | 7 | 2.31644 |
| 376 | VA0560 | 7 | 4.02850 |
| 377 | VT0064 | 7 | 2.70566 |
| 378 | VT0065 | 7 | 3.08135 |
| 379 | VT0165 | 4 | 5.11503 |
| 380 | WA0267 | 7 | 4.14645 |
| 381 | WA0294 | 7 | 3.68488 |
| 382 | WA0419 | 7 | 3.31302 |
| 383 | WA0470 | 7 | 3.67651 |
| 384 | WI0067 | 3 | 2.31083 |
| 385 | WI0095 | 3 | 3.72702 |
| 386 | WI0106 | 3 | 3.49440 |
| 387 | WI0254 | 7 | 1.37271 |
| 388 | WI0519 | 7 | 2.05972 |
| 389 | WI0534 | 4 | 4.65324 |
| 390 | WI0566 | 4 | 1.91742 |
| 391 | WI0621 | 9 | 3.23533 |
| 392 | WI0650 | 4 | 2.63693 |
| 393 | WI0650 | 4 | 2.52089 |
| 394 | WI0801 | 9 | 2.36941 |
| 395 | WI0862 | 7 | 1.39102 |
| 396 | WV0004 | 3 | 3.45784 |
| 397 | WV0323 | 3 | 2.11516 |
| 398 | WV0437 | 3 | 4.98134 |
| 399 | WV0496 | 3 | 3.80171 |
| 400 | WV0736 | 3 | 1.81572 |
| 401 | WV1131 | 3 | 3.63895 |
| 402 | WY0010 | 3 | 2.38126 |
| 403 | WY0027 | 4 | 4.03957 |
| 404 | XX0002 | 9 | 3.16196 |
| 405 | XX0003 | 3 | 4.05259 |
| 406 | XX0004 | 7 | 2.29369 |
| 407 | XX0012 | 7 | 2.37129 |
| 408 | XX0012 | 3 | 2.38735 |
| 409 | XX0020 | 4 | 3.95114 |
| 410 | XX0021 | 7 | 1.94131 |
| 411 | XX0021 | 7 | 3.25086 |
| 412 | XX0022 | 7 | 4.15021 |
| 413 | XX0028 | 7 | 3.19613 |
| 414 | XX0030 | 9 | 6.67340 |
| 415 | XX0031 | 7 | 5.74900 |
| 416 | XX0033 | 7 | 3.02621 |
| 417 | XX0034 | 7 | 3.26894 |
| 418 | XX0035 | 7 | 2.26826 |
| 419 | XX0047 | 7 | 2.31391 |
| 420 | XX0050 | 4 | 3.57421 |



Cluster Summary

| Cluster | Frequency | RMS Std Deviation | Maximum Distance from Seed to Observation | Nearest Cluster | Centroid Distance |
|---|---|---|---|---|---|
| 1 | 3 | 1.0369 | 4.4624 | 9 | 11.1273 |
| 2 | 16 | 0.8729 | 6.3051 | 9 | 4.9897 |
| 3 | 94 | 0.6461 | 6.1657 | 7 | 3.0756 |
| 4 | 48 | 0.8397 | 6.6566 | 7 | 4.5758 |
| 5 | 4 | 0.7936 | 3.9151 | 8 | 6.4285 |
| 6 | 1 | . | 0 | 10 | 17.5859 |
| 7 | 165 | 0.6378 | 6.5730 | 3 | 3.0756 |
| 8 | 6 | 1.1040 | 5.1439 | 5 | 6.4285 |
| 9 | 82 | 0.7908 | 6.6734 | 7 | 3.6414 |
| 10 | 1 | . | 0 | 5 | 11.3238 |

Statistics for Variables

| Variable | Total STD | Within STD | R-Squared | RSQ/(1-RSQ) |
|---|---|---|---|---|
| S2_AGEME | 1.000000 | 0.730852 | 0.478473 | 0.917446 |
| S2_ASUBS | 1.000000 | 0.498496 | 0.756840 | 3.112513 |
| S2_MILES | 1.000000 | 0.576107 | 0.675230 | 2.079106 |
| S2_MSOMU | 1.000000 | 0.975400 | 0.069031 | 0.074150 |
| S2_PABOV | 1.000000 | 0.908313 | 0.192689 | 0.238680 |
| S2_PARTM | 1.000000 | 0.987684 | 0.045434 | 0.047596 |
| S2_PASUB | 1.000000 | 0.606477 | 0.640086 | 1.778441 |
| S2_SUBSY | 1.000000 | 0.913422 | 0.183581 | 0.224862 |
| S2BURY | 1.000000 | 0.408446 | 0.836755 | 5.125778 |
| S5_ADDRS | 1.000000 | 0.293173 | 0.915896 | 10.890000 |
| S5_BURY | 1.000000 | 0.353713 | 0.877575 | 7.168248 |
| S5_HEADA | 1.000000 | 0.706311 | 0.511841 | 1.048513 |
| S5_MILES | 1.000000 | 0.453317 | 0.798917 | 3.973083 |
| S5_PABOV | 1.000000 | 0.938807 | 0.137572 | 0.159518 |
| S5_PASUB | 1.000000 | 0.602472 | 0.644824 | 1.815509 |
| S5_SUBFR | 1.000000 | 0.941286 | 0.133013 | 0.153419 |
| S6_FPAID | 1.000000 | 0.352667 | 0.878298 | 7.216763 |
| S7_FYACB | 1.000000 | 0.476148 | 0.778152 | 3.507600 |
| S7_FYARC | 1.000000 | 0.331929 | 0.892190 | 8.275565 |
| S7_TOTAC | 1.000000 | 0.768338 | 0.422336 | 0.731111 |
| S7_TDTV | 1.000000 | 0.978980 | 0.062185 | 0.066309 |
| S7_TLTV | 1.000000 | 0.919351 | 0.172948 | 0.209114 |
| S7_TSAT | 1.000000 | 0.833784 | 0.319737 | 0.470019 |
| OVER-ALL | 1.000000 | 0.717196 | 0.496678 | 0.986801 |

Pseudo F Statistic = 44.95
Approximate Expected Over-All R-Squared = 0.19124
Cubic Clustering Criterion = 149.164
WARNING: The two above values are invalid for correlated variables.

### Cluster Means

| Cluster | S2_AGEHE | S2_ASUBS | S2_MILES | S2_MSONU | S2_PABOV | S2_PARTM | S2_PASUB | S2_SUBSY | S2BURY | S5_ADDRS | S5_BURY | S5_HEADA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.0630 | 0.0821 | 0.4094 | 0.4628 | 0.2253 | 0.3630 | 0.3677 | -0.8986 | -0.3877 | 0.6655 | -0.3796 | 0.1020 |
| 2 | -0.2804 | 3.3476 | 3.7045 | 0.4000 | -0.0529 | 0.3630 | 0.6414 | 0.1910 | -0.2027 | -0.0264 | -0.0036 | -0.1910 |
| 3 | 1.2695 | -0.2766 | -0.1175 | 0.2298 | 0.2938 | 0.2306 | -0.3638 | 0.7264 | -0.3562 | -0.1828 | -0.3476 | 1.3112 |
| 4 | -0.1641 | -0.2751 | -0.1725 | 0.3994 | -1.0830 | -0.0259 | -0.2289 | -0.1911 | 2.5114 | -0.1482 | 2.5657 | -0.1495 |
| 5 | -0.5968 | 3.2710 | 0.2107 | -0.2264 | 0.3247 | 0.3630 | 2.4911 | -1.0577 | -0.3877 | 5.7599 | -0.3796 | -0.5724 |
| 6 | 0.0198 | 4.4930 | 3.8762 | -0.6148 | 0.0842 | 0.3630 | 2.1433 | -1.4866 | 2.5730 | 9.9703 | 2.6283 | 0.0578 |
| 7 | -0.4648 | -0.3910 | -0.4103 | -0.1013 | 0.2544 | -0.0707 | -0.5875 | -0.2657 | -0.3339 | -0.2007 | -0.3796 | -0.4681 |
| 8 | -0.0668 | 1.4728 | 1.4304 | -0.0861 | -0.3968 | -0.1556 | 0.9570 | -0.5543 | -0.3877 | 2.3956 | -0.3796 | -0.0306 |
| 9 | -0.3301 | 0.2301 | 0.1392 | -0.3560 | -0.2091 | -0.1682 | 1.3497 | -0.0626 | -0.3155 | -0.0219 | -0.3062 | -0.4033 |
| 10 | -0.6292 | 4.6258 | 1.8095 | -0.6223 | 0.6999 | -2.7483 | 2.2358 | -1.4368 | -0.3877 | 10.2467 | -0.3796 | -0.6056 |

| Cluster | S5_MILES | S5_PABOV | S5_PASUB | S5_SUBFR | S6_FPAID | S7_FYACB | S7_FYARC | S7_TOTAC | S7_TDTV | S7_TLTV | S7_TSAT |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.0518 | 0.1562 | 0.3476 | -0.7957 | 1.1224 | 10.1227 | 3.2897 | 1.1803 | 0.6450 | -0.3128 | 1.7213 |
| 2 | 0.0419 | -0.0676 | 0.8122 | -0.1879 | -0.0385 | 0.0571 | -0.0682 | 0.6497 | -0.4782 | 0.7660 | 0.4173 |
| 3 | -0.1761 | 0.2968 | -0.3915 | 0.6370 | -0.1658 | -0.1137 | -0.1652 | 0.0669 | 0.3638 | -0.1701 | 0.1400 |
| 4 | -0.1347 | -0.9604 | -0.2521 | -0.0774 | -0.1203 | -0.0336 | -0.0943 | -0.2672 | -0.1162 | 0.0756 | -0.2721 |
| 5 | 1.3670 | 0.1761 | 2.4359 | -0.9998 | 3.8984 | -0.1937 | 0.9780 | 2.2143 | -0.7288 | 1.9310 | 1.0912 |
| 6 | 12.9650 | 0.0308 | 2.0544 | -1.1501 | 9.1931 | 3.3453 | 15.1852 | 3.2244 | 0.9421 | 2.1529 | 1.5560 |
| 7 | -0.1814 | 0.1477 | -0.5770 | -0.1930 | -0.1989 | -0.1722 | -0.1893 | -0.5980 | -0.1462 | -0.3218 | -0.5479 |
| 8 | 3.9160 | -0.3112 | 0.9091 | -0.3667 | 3.3777 | -0.1937 | 4.0651 | 1.3245 | -0.3946 | 0.8707 | 1.0809 |
| 9 | -0.0309 | -0.0610 | 1.3496 | -0.1277 | -0.0667 | 0.1002 | -0.0164 | 0.8436 | 0.0727 | 0.4642 | 0.7867 |
| 10 | 6.7248 | 0.5780 | 2.1440 | -1.1081 | 11.8440 | -0.1937 | 0.5965 | 2.0700 | -0.3946 | 0.9694 | 1.5560 |

### Cluster Standard Deviations

| Cluster | S2_AGEHE | S2_ASUBS | S2_MILES | S2_MSONU | S2_PABOV | S2_PARTM | S2_PASUB | S2_SUBSY | S2BURY | S5_ADDRS | S5_BURY | S5_HEADA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.14988 | 0.33983 | 0.16482 | 1.66913 | 0.54462 | 0.00000 | 0.64290 | 0.83875 | 0.00000 | 0.74232 | 0.00000 | 0.15320 |
| 2 | 0.79976 | 1.49168 | 1.66957 | 1.20998 | 0.85036 | 0.00000 | 0.81107 | 0.45529 | 0.74019 | 0.34057 | 1.02739 | 0.81192 |
| 3 | 0.89445 | 0.26412 | 0.57115 | 1.17730 | 0.60466 | 0.63138 | 0.43640 | 0.67452 | 0.30538 | 0.06591 | 0.31024 | 0.92487 |
| 4 | 0.79333 | 0.26259 | 0.62587 | 1.29435 | 1.39324 | 1.03987 | 0.73560 | 1.00982 | 0.42735 | 0.24134 | 0.43415 | 0.79695 |
| 5 | 0.26760 | 1.34304 | 0.34822 | 0.26801 | 0.57105 | 0.00000 | 0.09327 | 0.71535 | 0.00000 | 0.84850 | 0.00000 | 0.27352 |
| 6 | . | . | . | . | . | . | . | . | . | . | . | . |
| 7 | 0.56655 | 0.03186 | 0.18711 | 0.84376 | 0.90114 | 1.08091 | 0.14165 | 0.99180 | 0.39679 | 0.01744 | 0.00000 | 0.54975 |
| 8 | 0.53624 | 1.69551 | 1.21678 | 1.21341 | 0.64605 | 1.27020 | 1.26140 | 0.51358 | 0.00000 | 2.13656 | 0.00000 | 0.54810 |
| 9 | 0.79040 | 0.69029 | 0.62810 | 0.61432 | 0.89819 | 1.17792 | 1.02857 | 1.01318 | 0.45953 | 0.22830 | 0.46684 | 0.64703 |
| 10 | . | . | . | . | . | . | . | . | . | . | . | . |



### Cluster Standard Deviations

| Cluster | S5_MILES | S5_PABOV | S5_PASUB | S5_SUBFR | S6_FPAID | S7_FYACB | S7_FYARC | S7_TOTAC | S7_TDTV | S7_TLTV | S7_TSAT |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.27415 | 0.48411 | 0.63621 | 0.77065 | 1.56774 | 3.53335 | 0.95077 | 0.79795 | 0.92752 | 0.61593 | 0.87051 |
| 2 | 0.84477 | 1.03915 | 0.99167 | 1.01373 | 0.45751 | 0.77338 | 0.39573 | 0.60172 | 0.43713 | 0.83492 | 0.64988 |
| 3 | 0.19069 | 0.61774 | 0.41910 | 0.74034 | 0.12865 | 0.18686 | 0.07998 | 0.67871 | 1.14641 | 0.95258 | 0.82421 |
| 4 | 0.38927 | 1.39423 | 0.74684 | 1.30252 | 0.31596 | 0.47579 | 0.44881 | 0.85321 | 0.85051 | 0.86424 | 0.85274 |
| 5 | 0.48470 | 0.48401 | 0.00138 | 0.19651 | 2.46991 | 0.00000 | 1.79766 | 0.53015 | 0.42660 | 0.50532 | 0.46785 |
| 6 | . | . | . | . | . | . | . | . | . | . | . |
| 7 | 0.43854 | 0.95936 | 0.22151 | 0.91366 | 0.06891 | 0.10296 | 0.04688 | 0.77990 | 0.94947 | 0.83375 | 0.78980 |
| 8 | 2.06901 | 0.49518 | 1.23177 | 0.45042 | 1.63599 | 0.00000 | 1.54922 | 0.69449 | 0.00000 | 1.00194 | 0.59910 |
| 9 | 0.33786 | 0.89559 | 0.96273 | 0.98081 | 0.22890 | 0.73188 | 0.33144 | 0.82609 | 1.01678 | 1.08888 | 0.96273 |
| 10 | . | . | . | . | . | . | . | . | . | . | . |

### Distance Between Cluster Means

| Cluster | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | . | 12.0919 | 11.6855 | 12.2620 | 13.2077 | 22.9686 | 11.7685 | 11.2596 | 11.1273 | 19.6810 |
| 2 | 12.0919 | . | 6.1965 | 6.9412 | 8.8159 | 25.1442 | 6.2739 | 7.8050 | 4.9897 | 17.9018 |
| 3 | 11.6855 | 6.1965 | . | 5.1430 | 10.4224 | 26.6296 | 3.0756 | 8.6139 | 3.9390 | 19.3621 |
| 4 | 12.2620 | 6.9412 | 5.1430 | . | 10.7949 | 26.1359 | 4.5758 | 9.1846 | 5.1496 | 19.5529 |
| 5 | 13.2077 | 8.8159 | 10.4224 | 10.7949 | . | 20.8073 | 10.2936 | 6.4285 | 8.4370 | 11.3238 |
| 6 | 22.9686 | 25.1442 | 26.6296 | 26.1359 | 20.8073 | . | 26.7787 | 18.8297 | 25.6912 | 17.5859 |
| 7 | 11.7685 | 6.2739 | 3.0756 | 4.5758 | 10.2936 | 26.7787 | . | 8.6498 | 3.6414 | 19.2696 |
| 8 | 11.2596 | 7.8050 | 8.6139 | 9.1846 | 6.4285 | 18.8297 | 8.6498 | . | 7.4149 | 13.3512 |
| 9 | 11.1273 | 4.9897 | 3.9390 | 5.1496 | 8.4370 | 25.6912 | 3.6414 | 7.4149 | . | 18.1786 |
| 10 | 19.6810 | 17.9018 | 19.3621 | 19.5529 | 11.3238 | 17.5859 | 19.2696 | 13.3512 | 18.1786 | . |