**Supplemental Table 1.** Fixed Effects for Food Insecurity (Model 3 with outlier)

|  |  |  |
| --- | --- | --- |
| **Variable** | $$OR$$ | **CI** |
| Job status change – Did not change | .7980 | .6419, .9919 |
| Car ownership/lease – Does not own/rent | 1.6193 | 1.3434, 1.9517 |
| HH size | 1.0279 | .9835, 1.0742 |
| SNAP status – Non-SNAP | .3493 | .3011, .4052 |
| *Block group population density* |  |  |
| 1st quartile | .9474 | .7661, 1.1716 |
| 2nd quartile | 1.0561 | .8618, 1.2942 |
| 3rd quartile | 1.0345 | .8454, 1.2659 |
| 4th quartile  | - | - |
| Poverty ratio | 2.8098  | 1.7319, 4.5581 |
| No. of restaurants within 5 mile radius | 1.0000 | .9999, 1.0000 |
| Language of interview – Not English | 1.4408 | 1.0948, 1.8961 |
| Interviewer familiarity – Different interviewer | .8641 | .7234, 1.0322 |
| *Frequency of completing food book* |  |  |
| Everyday | 0.7141 | .4024, 1.2671 |
| More than once but not everyday | 0.7446 | .4137, 1.3395 |
| Once before the end of the week | 1.2316 | .5855, 2.5906 |
| Once at the end of the week | 0.8640 | .4500, 1.6590 |
| Did not complete at all | 0.9536 | .4959, 1.8340 |
| Missing | - | - |
| *Difficulty for HH members* |  |  |
| Very easy | 0.8294 | .3392, 2.0283 |
| Easy | 0.6516 | .2652, 1.6013 |
| Neither easy nor difficult | 0.7997 | .3217, 1.9877 |
| Difficult | 0.9206 | .3608, 2.3490 |
| Very difficult | 1.0733 | .4063, 2.8346 |
| Not applicable | 0.8159 | .3298, 2.0188 |
| Missing | - | - |
| *Ease of keeping track of food* |  |  |
| Very easy | 1.5410 | .5894, 4.0289 |
| Easy | 1.6656 | .6357, 4.3645 |
| Neither easy nor difficult | 2.1064 | .7960, 5.5739 |
| Difficult | 2.4645 | .9124, 6.6579 |
| Very difficult | 3.5873 | 1.1413, 11.2751 |
| Missing | - | - |
| Inbound calls | .9872 | .9392, 1.0377 |
| Outbound calls | 1.0278 | .9836, 1.0739 |
| Income worksheet – Did not complete | .9776 | .8426, 1.1342 |
| No. of interviews completed | 1.0013 | .9990, 1.0035 |
| *Ever interviewed in metropolitan location* |  |  |
| Non-metropolitan only | 1.7105 | 1.0436, 2.8036 |
| Metropolitan only | 1.2307 | .8656, 1.7498 |
| Both metropolitan and non-metropolitan | - | - |
| Travelled across PSUs - No | .7285 | .5761, .9213 |

PR, primary respondent; HH, household; SNAP, Supplementary Nutrition Assistance Program; PSU, primary sampling unit; Modelling the event of food insecurity

**Supplemental Table 2.** Fixed Effects for Interview Day Gap (Model 3 with outlier)

|  |  |  |
| --- | --- | --- |
| **Variable** | $$OR$$ | **CI** |
| Employment status of PR – Not employed | .8196 | .7070, .9500 |
| Household income | 1.1234 | .9299, 1.3571 |
| Job status change – Did not change | 1.1490 | .9135, 1.4453 |
| Car ownership/lease – Does not own/rent | .9370 | .7628, 1.1510 |
| HH size | 1.0282 | .9821, 1.0764 |
| SNAP status – Non-SNAP | 1.0185 | .8592, 1.2074 |
| Food security rating – Food security | 1.0597 | .8983, 1.2502 |
| Location – Not rural | .7392 | .5951, .9182 |
| *Block group population density* |  |  |
| 1st quartile | .9646 | .7660, 1.2148 |
| 2nd quartile | .8498 | .6775, 1.0659 |
| 3rd quartile | .8231 | .6631, 1.0217 |
| 4th quartile  | - | - |
| Poverty ratio | .5344 | .3067, .9312 |
| No. of restaurants within 5 mile radius | 1.0000 | .9999, 1.0000 |
| Language of interview – No English | 1.0077 | .7206, 1.4093 |
| *Frequency of completing food book* |  |  |
| Everyday | .8361 | .4513, 1.5490 |
| More than once but not everyday | .8799 | .4681, 1.6537 |
| Once before the end of the week | .9329 | .4219, 2.0629 |
| Once at the end of the week | .8883 | .4439, 1.7773 |
| Did not complete at all | 1.0342 | .5182, 2.0639 |
| Missing | - | - |
| *Difficulty for HH members* |  |  |
| Very easy | 0.7874 | .3197, 1.9396 |
| Easy | 0.8777 | .3549, 2.1706 |
| Neither easy nor difficult | 0.7859 | .3128, 1.9745 |
| Difficult | 1.1238 | .4336, 2.9128 |
| Very difficult | 1.1393 | .4286, 3.0286 |
| Not applicable | 1.0802 | .4356, 2.6789 |
| Missing | - | - |
| *Ease of keeping track of food* |  |  |
| Very easy | 0.7540 | .3058, 1.8595 |
| Easy | 0.7261 | .2936, 1.7959 |
| Neither easy nor difficult | 0.8496 | .3392, 2.1280 |
| Difficult | 0.8143 | .3152, 2.1035 |
| Very difficult | 0.7925 | .2591, 2.4242 |
| Missing | - | - |
| Inbound calls | .8516 | .8083, .8973 |
| Outbound calls | 1.0540 | 1.0081, 1.1018 |
| Income worksheet – Did not complete | 1.2220 | 1.0480, 1.4249 |
| No. of interviews completed | .9945 | .9913, .9976 |
| *Ever interviewed in metropolitan location* |  |  |
| Non-metropolitan only | .8326 | .4267, 1.6245 |
| Metropolitan only | 1.0058 | .5786, 1.7484 |
| Both metropolitan and non-metropolitan  | - | - |
| Travelled across PSUs - No | .8663 | .6148, 1.2207 |

PR, primary respondent; HH, household; SNAP, Supplementary Nutrition Assistance Program; PSU, primary sampling unit; Modelling the probability of a longer time gap.

**Supplemental Table 3.** Fixed Effects for Log Income (Model 3 with outlier)

|  |  |  |
| --- | --- | --- |
| **Variable** | $$β$$ | **95% CI** |
| Job status change – Did not change | .0458 | -.0128, .1045 |
| Car ownership/lease – Does not own/rent | -.1982\*\*\* | -.2599, -.1365 |
| HH size | .0166\* | .0039, .0292 |
| SNAP status – Non-SNAP | .3181\*\*\* | .2715, .3647 |
| Food security rating – Food security | .0827\*\* | .0324, .1330 |
| Location – Not rural | .0525\* | .0015, .1036 |
| *Block group population density* |  |  |
| 1st quartile | -.0792\*\* | -.1356, -.0229 |
| 2nd quartile | -.0223 | -.0779, .0332 |
| 3rd quartile | -.0459 | -.1001, .0083 |
| 4th quartile  | - | - |
| Poverty ratio | -.5246\*\*\* | -.6654, -.3838 |
| No. of restaurants within 5 mile radius | .0000 | .0000, .0000 |
| Language of interview – Not English | -.0290 | -.1144, .0564 |
| Interviewer familiarity – Different interviewer | .0505\* | .0032, .0977 |
| *Frequency of completing food book* |  |  |
| Everyday | -.0936 | -.2639, .0766 |
| More than once but not everyday | -.0518 | -.2251, .1215 |
| Once before the end of the week | -.0978 | -.3169, .1213 |
| Once at the end of the week | -.0388 | -.2327, .1552 |
| Did not complete at all | -.0870 | -.2816, .1077 |
| Missing | - | - |
| *Difficulty for HH members* |  |  |
| Very easy | -.0512 | -.3650, .2626 |
| Easy | -.0647 | -.3787, .2493 |
| Neither easy nor difficult | -.0535 | -.3697, .2626 |
| Difficult | -.0495 | -.3720, .2729 |
| Very difficult | -.0936 | -.4274, .2402 |
| Not applicable | -.0031 | -.3206, .3144 |
| Missing | - | - |
| *Ease of keeping track of food* |  |  |
| Very easy | .0763 | -.2510, .4036 |
| Easy | .1038 | -.2239, .4315 |
| Neither easy nor difficult | .0861 | -.2434, .4155 |
| Difficult | .0390 | -.2979, .3760 |
| Very difficult | .1151 | -.2687, .4989 |
| Missing | - | - |
| Inbound calls | -.0016 | -.0152, .0120 |
| Outbound calls | .0152\* | .0032, .0271 |
| Income worksheet – Did not complete | .0082 | -.0322, .0487 |
| Age | -.0009 | -.0024, .0005 |
| Sex - Male | .2746\*\*\* | .2388, .3104 |

PR, primary respondent; HH, household; SNAP, Supplementary Nutrition Assistance Program; HS, highschool; PSU, primary sampling unit; \*p<.05; \*\* p<.01; \*\*\*p<.001; Intercept = 6.2231.

**Supplemental Table 3.** Cont. Fixed Effects for Log Income (Model 3 with outlier)

|  |  |  |
| --- | --- | --- |
| **Variable** | $$β$$ | **95% CI** |
| *Race* |  |  |
| White | .2227\*\* | .0874, .3580 |
| Black | .2203\*\* | .0775, .3631 |
| Others | .1962\*\* | .0521, .3403 |
| Multiple race | - | - |
| *Marital status* |  |  |
| Married | .3516\*\*\* | .3005, .4027 |
| Widowed | .2917\*\*\* | .1970, .3864 |
| Divorced | .3663\*\*\* | .3036, .4290 |
| Separated | .2728\*\*\* | .1745, .3711 |
| Never married | - | - |
| *Education level* |  |  |
| Below HS | -.5593\*\*\* | -.6186, -.5000 |
| HS | -.3369\*\*\* | -.3796, -.2942 |
| College and above | - | - |
| *Financial condition* |  |  |
| Very comfortable and secure | .5830 | .4749, .6911 |
| Without much difficulty | .3906 | .2914, .4898 |
| Occasionally difficult | .2600 | .1653, .3547 |
| Tough to make ends meet | .1540 | .0610, .2470 |
| In over your head | - | - |
| *Frequency of paying bills on time* |  |  |
| Never | .3918 | -.0288, .8124 |
| Rarely | .3401 | -.0693, .7495 |
| Sometimes | .2969 | -.0982, .6920 |
| Usually | .3253 | -.0687, .7193 |
| Always | .2606 | -.1324, .6536 |
| Not applicable | - | - |
| *Freq. of reviewing bills accuracy* |  |  |
| Never | .0975\*\* | .0309, .1641 |
| Rarely  | .0533 | -.0246, .1311 |
| Sometimes | .0199 | -.0343, .0742 |
| Usually | .0980\*\*\* | .0454, .1505 |
| Missing | .0291 | -.2396, .2978 |
| Always | - | - |
| No. of interviews completed | -.0006 | -.0012, .0000 |
| *Ever interviewed in metropolitan location* |  |  |
| Non-metropolitan only | -.0207 | -.1560, .1145 |
| Metropolitan only | .0655 | -.0293, .1602 |
| Both metropolitan and non-metropolitan | - | - |
| Travelled across PSUs - No | .0107 | -.0531, .0745 |

PR, primary respondent; HH, household; SNAP, Supplementary Nutrition Assistance Program; HS, highschool; PSU, primary sampling unit; \*p<.05; \*\* p<.01; \*\*\*p<.001; Intercept = 6.2231.

**Supplemental Table 4.** Fixed Effects for Missing Income (Model 3 with outlier)

|  |  |  |
| --- | --- | --- |
| **Variable** | $$OR$$ | **95% CI** |
| Job status change – Did not change | 1.1142 | .8363, 1.4845 |
| HH income | .5721 | .4275, .7657 |
| Car ownership/lease – Does not own/rent | 1.4792 | 1.1464, 1.9085 |
| HH size | 1.0161 | .9580, 1.0776 |
| SNAP status – Non-SNAP | .7368 | .5939, .9140 |
| Food security rating – Food security | 1.2659 | 1.0012, 1.6006 |
| Location – Not rural | 1.1168 | 0.8671, 1.4385 |
| *Block group population density* |  |  |
| 1st quartile | 1.0669 | .8135, 1.3991 |
| 2nd quartile | 1.1175 | .8629, 1.4473 |
| 3rd quartile | .8936 | .6910, 1.1557 |
| 4th quartile  | - | - |
| Poverty ratio | .5776 | .2964, 1.1257 |
| No. of restaurants within 5 mile radius | 1.0001 | .9999, 1.0003 |
| Language of interview – Not English | 1.2707 | .894, 1.806 |
| Interviewer familiarity – Different interviewer | 0.8232 | .6581, 1.0296 |
| *Frequency of completing food book* |  |  |
| Everyday | .8977 | .4333, 1.8600 |
| More than once but not everyday | .7385 | .3503, 1.5567 |
| Once before the end of the week | 1.0332 | .3999, 2.6695 |
| Once at the end of the week | 1.1858 | .5194, 2.7069 |
| Did not complete at all | .7498 | .3275, 1.7170 |
| Missing | - | - |
| *Difficulty for HH members* |  |  |
| Very easy | .9132 | .2818, 2.9588 |
| Easy | 1.0147 | .3120, 3.3006 |
| Neither easy nor difficult | .8987 | .2719, 2.9701 |
| Difficult | 1.2761 | .3768, 4.3215 |
| Very difficult | .8111 | .2268, 2.9005 |
| Not applicable | .7166 | .2171, 2.3653 |
| Missing | - | - |
| *Ease of keeping track of food* |  |  |
| Very easy | .9439 | .2778, 3.2072 |
| Easy | .8973 | .2632, 3.0587 |
| Neither easy nor difficult | 1.0241 | .2972, 3.5289 |
| Difficult | .7153 | .2007, 2.5498 |
| Very difficult | 1.5754 | .3747, 6.6227 |
| Missing | - | - |
| Inbound calls | .9924 | .9323, 1.0564 |
| Outbound calls | 1.0660 | 1.0084, 1.127 |
| Income worksheet – Did not complete | 2.2662 | 1.8808, 2.7305 |
| Age | 1.0062 | 1.0001, 1.0123 |
| Sex - Male | .9758 | .8473, 1.1238 |

PR, primary respondent; HH, household; SNAP, Supplementary Nutrition Assistance Program; HS, highschool; PSU, primary sampling unit; Modelling the event of any missing income.

**Supplemental Table 4.** Cont. Fixed Effects for Missing Income (Model 3 with outlier)

|  |  |  |
| --- | --- | --- |
| **Variable** | $$OR$$ | **95% CI** |
| *Race* |  |  |
| White | 1.5484 | .8097, 2.9609 |
| Black | 1.4246 | .7225, 2.8089 |
| Others | 1.4268 | .7211, 2.8227 |
| Multiple race | - | - |
| *Marital status* |  |  |
| Married | .8363 | .6721, 1.0406 |
| Widowed | .7043 | .4679, 1.0600 |
| Divorced | .7315 | .5532, 0.9675 |
| Separated | .7563 | .4925, 1.1615 |
| Never married | - | - |
| *Education level* |  |  |
| Below HS | .8461 | .6641, 1.0779 |
| HS | .9269 | .7656, 1.1221 |
| College and above | - | - |
| *Financial condition* |  |  |
| Very comfortable and secure | 1.5970 | .9758, 2.6135 |
| Without much difficulty | 1.2499 | .7979, 1.9583 |
| Occasionally difficult | 1.0200 | .6647, 1.565 |
| Tough to make ends meet | .8627 | .5654, 1.3163 |
| In over your head | - | - |
| *Frequency of paying bills on time* |  |  |
| Never | .2625 | .0561, 1.2294 |
| Rarely | .6153 | .1509, 2.5093 |
| Sometimes | .5787 | .1525, 2.1955 |
| Usually | .5697 | .1511, 2.1475 |
| Always | .6909 | .1846, 2.586 |
| Not applicable | - | - |
| *Freq. of reviewing bills accuracy* |  |  |
| Never | .7671 | .2743, 2.1449 |
| Rarely | .7176 | .2492, 2.066 |
| Sometimes | .7858 | .2829, 2.1826 |
| Usually | .7083 | .2544, 1.9717 |
| Always | .9194 | .3366, 2.5113 |
| Missing | - | - |
| No. of interviews completed | .9964 | .9935, 0.9994 |
| *Ever interviewed in metropolitan location* |  |  |
| Non-metropolitan only | 1.0966 | .5559, 2.1632 |
| Metropolitan only | 1.2673 | .7689, 2.0890 |
| Both metropolitan and non-metropolitan  | - | - |
| Travelled across PSUs - No | .9772 | .7156, 1.3344 |

PR, primary respondent; HH, household; SNAP, Supplementary Nutrition Assistance Program; HS, highschool; PSU, primary sampling unit; Modelling the event of any missing income.